

IN A COMPETITIVE ENVIRONMENT

VOLUME I

INPUT

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Customer Service Program (CSP)

***Third-Party Maintenance Competitive
Environment - Volume I***

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Abstract

This report is intended to address the changing competitive factors in the third-party marketplace by examining strategic and operational factors at work in specific TPM vendor businesses.

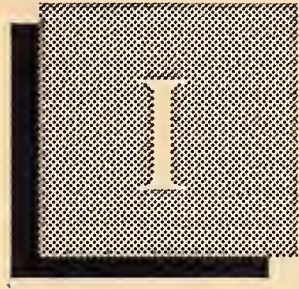
The report, contained in two volumes, provides extensive profile information on 150 leading third- (and fourth-) party players, including demographic background information, breakdowns of both operational and revenue structures, and an outline of current and planned products and service capabilities. Additionally, a number of strategic factors strategically position each company in terms of targeted industry and competition within the marketplace. These profiles are presented in a convenient two-page outline format in Volume II for easy reference.

In Volume I, 20 of the top third-party players are examined in detail in terms of their competitive stance and strategic position. The three to four page analyses discuss each contender's competitive focus, strategic perspective, and market outlook, including company background issues and service coverage strengths. The profiles discuss the changes each vendor has perceived in the evolving TPM marketplace and the specific effects these changes have had on third-party operations and profitability.

This two-volume report contains a total of 393 pages.

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Introduction





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Introduction

The *Third-Party Maintenance Competitive Environment* report, the last in a series of three support topic reports released this year, was produced by INPUT as part of the 1987 US Customer Services Program. Providing information on the operations, organization, and strategic positioning of 150 major third- and fourth-party players, *Third-Party Maintenance Competitive Environment* is a useful reference tool for both users and vendors concerned with the changing Third-Party marketplace.

The full report is delivered in two volumes, with in-depth written analyses of 20 of the leading Third-Party contenders contained in Volume I and extensive "directory-style" outlines of 150 major TPM vendors (including those leading 20), designed for easy reference, in Volume II.

The comprehensive company profiles presented in this report include management and "head-count" information, geographic and product coverage, and an examination of current and planned service capabilities, as well as more strategic business base and revenue structure breakdowns. Each company is strategically positioned according to products, industries, and TPM competitors targeted, and background information provides insight into each company's success within its marketplace.

The information contained in our 1987 *Third-Party Maintenance Competitive Environment* report came directly from the 150 vendors profiled. INPUT contacted appropriate executives within each organization by phone to discuss the company's competitive position, and further researched pertinent literature and news items to round out each firm's profile information. The questionnaire used in the interview process is presented in Appendix B (Volume II) of this report.

Beyond these outlined questions, a number of additional strategic topics were covered with the leading 20 vendors, defining approach to market differentiation, target segmentation, and important operational issues.

Recent changes in the competitive environment, in terms of service product, service delivery and service market issues, were covered, as well as their impact on future strategies, profitability, and the state of Third-Party marketplace. Summarizing the strategic stance of 20 of the leading market players, this volume of *Third-Party Maintenance Competitive Environment* provides considerable insight into the evolution of Third-Party maintenance.



Competitive Analysis of 20 Leading TPM Vendors





Competitive Analysis of 20 Leading TPM Vendors

3M Equipment Service and Support Division

3M Center
Saint Paul, MN 55144
(800) 328-3643

- Ed Guertin, General Manager
- Active 4 years in the TPM market

Company Update

3M Equipment and Support Division, now active in the third-party marketplace for just over four years, is rapidly making its mark in this marketplace among the top contenders. Backed by the resources and financial stability of a large multi-national parent corporation, 3M provides the micro systems marketplace with a third-party alternative whose main concern lies within the PC sector. With many other major TPM vendors expanding into or even basing their operations on higher-end customer needs, 3M Total Support Service is tailored to suit the micro and peripheral marketplace, only venturing into even small systems support if necessary to support a 3M product customer.

Maintenance Operations

3M is currently consolidating its Total Performance Service (TPS) operations from the 50-plus individual service locations into a five-zone organizational structure. By allowing better control over its field engineer resources and more efficient usage of its centralized dispatch operation, the consolidation should serve to strengthen 3M operationally.

3M maintains a single pool of engineers in its Equipment Service and Support division, who provide service to both 3M and third-party equipment customers. Although specific statistics on support staff size are

withheld by 3M, coverage is offered across the US as well as in number of foreign countries to augment 3M equipment support.

In a support mode that is unusual for a third-party vendor concentrating efforts in the micro sector, 3M reports that 90% of its business is conducted at the system site, and although 14 repair depots are maintained, the majority of users demand on-site assistance. Phone support is also available to TPS users, but 3M sees its large account customers as preferring the personal attention delivered with an on-site call, rather than sending machines out or performing suggested fixes themselves.

Service Coverage

3M offers a good selection of basic maintenance services aimed at the PC marketplace. Dedicating most of its capabilities to the hardware side of system maintenance, 3M does have the capability to perform limited software support and does maintain a number of operating packages associated with 3M products. Becoming a popular offering even in the micro marketplace, 3M may benefit from utilizing its existing resources to satisfy large-account needs with some level of application support in the PC area.

Fourth-party and refurbishment capabilities also exist within the 3M organization, but are basically utilized internally. 3M commonly uses "reverse engineering" and fourth-party sources for hard-to-get parts, but has few problems with the majority of vendors under agreement as a warranty servicer or authorized maintainer of many PC and peripheral manufacturers.

- Brands supported include IBM, DEC, Compaq, Dataproducts, AT&T, Micom, Hayes, Televideo, Texas Instruments, Lear Seigler, and Racal Vadic

Products maintained are:

- Telecommunications
- Minicomputers
- PBX
- Microcomputers
- Multiplexers
- Peripherals
- Modems

Services provided by 3M are:

- Manufacturer warranty
- Disaster recovery
- Remedial maintenance

- Installation/relocation
- Preventive maintenance
- Fourth-party maintenance
- ECO/FCO change orders
- Refurbishment
- Software maintenance
- Conversion/upgrade
- Consulting
- Equipment sale/lease
- Training
- File conversion

Competitive Focus

3M sums up its driving objective with its “right the first time” motto and backs its goal with a network of sophisticated parts and engineer control systems. With a chain of spares inventories reaching from a central warehouse location to its five zone offices and into each field support van, 3M sees its reliable parts support as setting it apart from competition. Over 25% of total spares inventories are stocked and maintained in its technician van pool, which 3M likes to refer to as “mobile warehouses.”

Arming field engineers with a convenient stock of commonly needed spares, 3M prides itself in its ability to service customers with “the right technician at the right place with the right part at the right time.” Its centralized call-taking facility at 3M’s Saint Paul headquarters allows dispatch operators to automatically access the user’s entire service history in one transaction and another keystroke to notify the appropriate branch office of the dispatch need, from the appropriate field engineer which is paged for service. The central information bank also provides automatic call escalation with variables factored in according to product sensitivity.

Growing out of its ability to customize support in these manners, flexibility is a key description of 3M support. 3M claims that it will handle virtually any micro-related product to suit customer needs and organizes its service agreements so that critical factors of response time, after hours coverage, and scheduled support can be tailored to each account need.

Viewing its primary competition as TPM majors TRW and Sorbus, as well as smaller, locally-strong contenders within the micro service market, 3M bases its competition on maintenance performance over pricing factors. Touting the high level of knowledge fostered in its field engineer and support teams, 3M markets service quality and the reputation of the 3M Corporation as part of the electronic service business for over 30 years.

Market Outlook

Backed by a strong parent corporation, 3M enjoys a degree of financial stability that many third-party contenders lack. Resources and client-base shared between 3M's TPM operations and its manufacturing sector allow 3M to shun traditional price-based competition and focus user attention on the advantages of service operations at this scale.

Pushing its "total performance" brand of support, 3M expects little impact from the recent discounting trends set off by IBM's CSA and similar offerings. Seeing little call from its customer base for co-active support offerings, 3M believes it will be able to see its way around competition at this level by stressing its support quality. With 90% of its current business derived from on-site support of PC products, it appears that 3M is fulfilling a needed "hand-holding" service often ignored in the micro marketplace.

Strategic Perspective

Fed by a strong background in data communications through its manufacturer parent, 3M's focus on quality support of lower-end systems and terminal and data communications equipment places it in a strong position to serve the growing network marketplace. 3M sees network support as an integral part of its existing business, and its national accounts experience prepares it well for expansion in this area.

Strength in terms of its dispatch computerization and the control it lends in meeting users' individualized response and escalation requirements will become increasingly important to 3M's differential advantage with the complexity of the PC network market. Although 3M's limited ability to service the larger systems controlling a growing number of networks may limit its growth in some market sectors, its focus on the low-end niche has thus far served it well. 3M's specialization may indeed be key in its continued success in the PC-based support market.

Control Data Corporation Technical Services Division

1101 East 78th Street
Bloomington, MN 55420
(612) 851-4009

- William Fitzgerald, Vice President Technical Services (acting)
- \$110 million in TPM revenues, 1986
- 20% growth expected for 1987
- Active 14 years in the TPM market

(previously CDC Engineering Services Division)

Company Update

Control Data Corporation, on the rebound from recent revenue downturns in nearly every area of its business, concerned itself with a major restructuring effort to bring back the bottom line in 1987. Included in this reorganization was the Engineering Services Division, which previously controlled the third-party aspects of CDC's support business. Now a separate area within the overall Technical Services Division, TPM Services is managed alongside of CDC's proprietary service group, with its own marketing and national sales operation dedicated to the third-party effort.

The new organizational structure combines CDC's resources into a stronger systems integration function, with all aspects of technical support "under one roof." CDC's recent venture into the third-party software support market also reinforces its dedication to the "total systems side" of TPM and places CDC in a third-party market leader position, a station not unfamiliar to Control Data's TPM organization.

Maintenance Operations

CDC employs a service staff of approximately 4500 who perform and support both third-party and CDC's own equipment maintenance. Although few of these service people are strictly dedicated to TPM activities, a pool of over 2800 engineers are available for field work. TPM support is offered nationwide through all CDC support offices, 50 of which are dedicated strictly to TPM support.

CDC utilizes its nationwide centralized parts logistics and dispatch systems in the delivery of TPM support and maintains a third-party parts depot and two depots for TPM repair activities. The vast majority — 98% — of CDC's TPM services are delivered on-site, but increasing use of remote capabilities are helping to improve efficiencies in on-site delivery.

Service Coverage

CDC, concentrating efforts in the DEC and IBM marketplace, provides support for the full range of systems and peripherals, from mainframes to PCs and telecommunications equipment. Although offerings in the telecommunications area are still somewhat limited (as far as standard offerings), activity in this sector can be expected to increase as the focus on networking escalates, especially in the DEC arena. Although CDC does currently offer full network support to some customers, network business is still centered more in the custom area than in standard contract sales.

Approximately 90% of CDC's third-party business is contract-based, the remaining 10% provided on a per-call basis, at price ranges paralleling IBM's T&M class standards. Support coverage (on both IBM and DEC systems) also follows the IBM 11-hour standard principle coverage, and full 24 hour/7 day coverage is available across the US.

CDC offers support a number of IBM- and DEC-based systems and compatibles, the newest additions including Britton Lee systems and peripherals, and Enulex and Novell LAN products.

- Brands supported include IBM, DEC, DG, Centronics, Cipher, Dataproducts, Kennedy, Zenith, Britton Lee, Emulex, and Novell.

Products maintained are:

- Mainframes
- Telecommunications
- Minicomputers
- LANs
- Superminicomputers
- Front-end processors
- Microcomputers
- Peripherals

Services provided are:

- Manufacturer warranty
- Disaster recovery
- Remedial maintenance
- Installation/relocation
- Preventive maintenance
- Fourth-party maintenance
- ECO/FCO change orders
- Refurbishment
- Software maintenance
- Conversion/upgrade

- Consulting
- File conversion
- Training

Competitive Focus

Complementing CDC's new organizational focus on marketing and selling its TPM services, a new package of glossy marketing literature guides users' attentions through the benefits of choosing an established vendor while conveying a modern image through its bold graphic images. CDC weighs its position as an established systems manufacturer offering third-party support as an advantage, despite the fact that many "independent" third-party operations slant this fact against manufacturer-related TPM operations. CDC, active in manufacturing only a small percentage of the product types it services as a third-party, claims it doesn't suffer from the type of bias accused of many vendors supporting their own products.

Coming from a mainframe manufacturing background, CDC also boasts a better understanding of the total systems maintenance concept, important in the increasing complexity of systems and network environments. Supported by the entire base of resources behind its proprietary service force, CDC's national dispatch, parts logistics, and back-up support systems are seen as strong competitive advantages.

At the same time, CDC lists among its strengths as a third-party maintainer the ability to be more responsive to users than many large manufacturer-service operations. With the separation of its TPM division from the remainder of CDC's service groups, TPM users are dealt with not as one system owner among the entire customer base, but as a client of the smaller organization of TPM Services. Focusing on what is a particular complaint among PC and "small ticket" component users, CDC offers users of these products greater responsiveness and flexibility through its Third-Party Service organization.

CDC, focusing efforts in the IBM and DEC markets, senses its greatest competition from these two vendors and the the larger third-party contenders within these two marketplaces — mainly TRW, Sorbus, and GE Computer Services. Competitive strategy is centered more on strengthening CDC's hold within these product-related sectors than in any specific industry or vertical markets and on holding its ground in the geographic areas where CDC TPM has a strong presence now.

Market Outlook

In the current state of financial flux Control Data Corporation is experiencing, it is not surprising that no major plans for expansion of acquisition were made for its TPM business in 1987. Instead, stability is the

main theme, and concentration on increased efficiencies and a strong competitive support menu are key. CDC sees further automation of its already largely computerized operation as a reliable route to lower support costs and has this year moved toward increasing its TPM problems data base resources.

In terms of increasing its competitive service menu, CDC will continue to expand its DEC and IBM software support and customized consulting offerings (provided to TPM customers through CDC's Professional Services group, also managed under the new Technical Services Department organization). After CDC forged the trail in the third-party software support market, a number of TPMs have followed, but CDC has yet to feel much competitive threat in this area. Although increased third-party competition in the software support arena will undoubtedly put pressure on CDC as a market leader, its "early start" in the area will allow CDC an advantage in experience and account control gained.

CDC was also among the first of the third-party contenders to counter IBM's Corporate Service Amendment (CSA), announced late last year, with the introduction of its more flexible competitive discount plan. Announced in mid-summer, the "User Friendly Option" allows deeper discounts to IBM users eligible for the CSA, with less requirement for user intervention in the support process. Market reaction has been positive to the new option, making it likely that CDC will expand the offering to compete with the more recently announced IBM Mid-Range Amendment.

Strategic Perspective

CDC, as one of the key players in the top third-party marketplace, at least managed to tread water in 1986 among the sinking revenues of other CDC divisions. Matching the \$110 million mark reached in 1985, '86 revenues are expected to grow by 20%, putting anticipated TPM revenues in the \$130 million range for 1987.

The more aggressive stance IBM has taken over the past year will undoubtedly effect revenue generation among the top TPM players, CDC included. Equally aggressive pricing plans with which CDC is countering the threat will keep CDC in the running in the highly competitive IBM marketplace, but will undoubtedly be somewhat of a drain on profits, despite CDC's already heavy involvement in service automation.

Well-balanced by its equally heavy involvement in the DEC market, CDC at least has the ability to offset some of the backlash from new IBM competitive threats like the CSA, from which other strictly IBM-based TPM's will suffer. By becoming more aggressive in the DEC marketplace, CDC's software support offerings are strengthening its position as an alternative to DEC support.

CDC's third-party operations, now streamlined and more focused since the revamp of the Engineering Services Division, should be able to resume its previously steady growth pattern in 1987. By paying increased attention to both the external marketing/sales thrust and internal monitoring of on-going support quality, CDC appears to be regaining momentum in the TPM arena.

DPCE Inc.

2550 Boulevard of the Generals
Norristown, PA 19403
(215) 631-5627

- David Travers, Managing Director
- \$12 million in TPM revenues
- 100% growth expected for 1987
- Active 3 years in the U.S. TPM market

Company Update

DPCE Incorporated, a subsidiary of Britain's DPCE Holdings plc, has been operating in the United States for over three years. DPCE's primary objective is to become the world's leading independent computer maintenance company.

DPCE Inc. has concentrated its efforts primarily on the East Coast of the United States, although its service capabilities are nationwide. DPCE acquired Systec, a large third-party maintenance organization based in Sanford (FL), in December 1986 which gave DPCE a large federally installed customer base. DPCE plans to continue using acquisition as a supplement to internal growth. DPCE Inc. has been growing at a rapid rate and will continue to service any type of computer system and/or installation.

Maintenance Operations

DPCE's U.S. operation currently has over 140 service personnel dedicated to field service operations. DPCE is unique in the fact that its service locations aren't service locations in the usual sense. DPCE only opens a service location after it lands a customer contract. If other customers in the area sign service contracts, then the DPCE location begins to blossom into a full-fledged service center. Often times, if there is only a single customer, DPCE will operate on the customer's premises. When the contract ends, DPCE leaves. DPCE believes that by operating in this manner overhead is kept to a minimum.

DPCE's service operation is functionally delineated. There is a separate division for brokerage/leasing activities, reconditioning, maintenance, reinstallation and deinstallation, and others. By having the organization structured in this fashion, DPCE believes that not only will DPCE be internally equipped to handle any request, but that the different divisions can cultivate new business for each other.

Service Coverage

DPCE prides itself on its ability to tailor its service offering to each particular customer. This is reflected in the numerous product lines that DPCE services.

- Brands supported include Amdahl, Ampex, Anadex, Apple, Centronics, Century, Codex, CDC, DG, Datapoint, Data Products, Dataram, Decision Data, Diablo, DEC, Epson, Fujitsu, Harris, Hazeltine, Honeywell, IBM, Memorex, Mostek, NCR, Olivetti, Prime, Printronix, Unisys, Wang, and Xerox.

Products maintained are:

- Mainframes
- Minicomputers
- Superminicomputers
- Microcomputers
- Peripherals
- Telecommunications
- LANs
- PBX
- Modems
- FAX
- Multiplexers
- Satellite earth stations
- Front-end processors

Services provided are:

- Manufacturer warranty
- Conversion/upgrade
- Remedial maintenance
- Installation/relocation
- Preventive maintenance
- Fourth-party maintenance
- ECO/FCO change orders
- Refurbishment
- Consulting
- Equipment sale/lease
- Training

Competitive Focus

DPCE's combination of financial strength (through DPCE Holdings plc), skilled personnel, and products coverage make it a formidable competitor in the TPM market.

DPCE believes that the high cost of new computer systems coupled with the proliferation of multi-vendor sites makes its approach to gaining new business advantageous. Through DPCE's Brokerage Division, DPCE can offer customers substantial cost savings over purchasing a new system. This method in turn helps to generate revenue for DPCE's Maintenance Division. This type of reciprocal relationship between DPCE's various divisions not only helps to foster the concept of teamwork, but also enhances profits.

DPCE also takes pride in the skill of its field engineers and is currently engaged in the training of other TPM's field forces.

Access to spare parts hasn't posed any problems for DPCE because it is still primarily an international service company. DPCE performs service in ten countries so its global focus has enabled it to acquire spare parts from all over the world, not just in the highly competitive U.S. market.

Market Outlook

DPCE focuses primarily on sites where facilities management and help desks can play a significant part in the service offering. DPCE feels that facilities management and help desks are a growing market in third-party maintenance. DPCE's support philosophy is that the easiest way to build a lasting relationship with the customer is to act as the customer's single source of contact with the manufacturer. DPCE states that many customers have to contact a variety of service sources depending on what brand of machine is down. This can be a very frustrating process. DPCE strives to eliminate this problem for its customers who have complicated multi-vendor environments.

Disaster recovery is another market DPCE feels is extremely promising. Though this is one of the few services that DPCE doesn't yet offer, DPCE will be moving forward aggressively in this area. DPCE feels that the insurance industry is the most lucrative vertical market for disaster recovery and plans on offering a comprehensive service offering to these firms. DPCE's disaster recovery would include "hot" and "cold" sites as well as mobile units for immediate dispatch should disaster strike.

Another support offering that DPCE is currently evaluating is software support. DPCE feels that software support for its customers could prove to be the most lucrative source of revenue in the future. This view is supported by INPUT's own findings which show the most customer dissatisfaction lies with software support and software documentation.

Strategic Perspective

Although DPCE is relatively new to the U.S. maintenance market (active for only three years), it has already carved out a reputation as an aggres-

sive service provider. DPCE has concentrated most of its efforts on the East Coast but by no means has it neglected the rest of the country.

DPCE is committed to increasing its service automation, particularly remote diagnostics. DPCE contends that remote diagnostics help decrease the number of erroneous service calls as well as reducing overhead in the field.

DPCE's field engineer skill level is very high. DPCE not only provides training to a number of third-party maintenance organizations but also works as a subcontractor for certain large TPMs. DPCE's training and support quality is achieved through its support staff. DPCE's support personnel are traditionally the highest paid people in the company. It is their job to identify problems with service and rectify it with training. By tracking internal weaknesses and initiating programs to correct these problems, DPCE hopes to avoid the usual "beta testing" on the customer.

DPCE's growth is expected to double by the end of 1987, and the acquisition of Systec is a large component of this growth rate. DPCE plans to continue using acquisition as a vehicle for growth in the third-party maintenance market.

Dataserv Computer Maintenance

12125 Technology Drive
Eden Prairie, MN 55344
(612) 829-6000

- Phil Hinderaker, President
- \$37 million in TPM revenues, 1986
- 80% growth expected for 1987
- Active 8 years in the TPM market

Company Update

Dataserv Computer Maintenance, growing out of the IBM-based equipment sale and leasing operations of Dataserv, Inc., has experienced rapid and steady growth in TPM since its move into that market in 1980. Originally brokering maintenance between end users and IBM Dataserv has since successfully developed its own field force proficient in IBM service as well as a separate end-user spare parts and component supply operation. The combination of its selling, leasing, financing, and maintenance businesses offers the IBM market an important full-service alternative.

Active both in the US and Britain at a corporate level, Dataserv expanded its support operations in the UK last year through its acquisition of Compel Group, a privately held microcomputer-based service company. The purchase was consummated in August of 1986 and was followed two months later by a bid from RBOC BellSouth to take over Dataserv's entire international operations. The exchange of shares between the two corporations completed the merger in November of '86, but left Dataserv Computer Maintenance (DCM) operating as a wholly owned subsidiary, with no moves thus far toward consolidating its operations with BellSouth's existing support activities.

Maintenance Operations

Dataserv Computer Maintenance is provided nationwide by a team of 800 service employees, three-quarters of whom work as actual bag-carrying field engineers. Working out of over 35 major metropolitan areas across the US, DCM staff has recently been reorganized into five regional groups as Dataserv restructures its maintenance operations. DCM maintenance is now offered out of 150 locations, through either Dataserv's in-house dedicated staff or by way of IBM brokering agreements still open in a number of geographic areas. Aggressive plans for expansion in these open areas, however, will undoubtedly decrease Dataserv's use of IBM staff in future support of its customers.

Dataserv, although providing over 90% of its service on-site, maintains profitable depot repair operations at four locations in the US. Under 5% of total business is conducted via DCM mail-in/carry-in operations, but accounts for over 25% of total revenues. A main depot facility in Minneapolis houses Dataserv's extensive parts warehouse as well, combining the strengths of the two business operations under one roof.

Service Coverage

Dataserv markets its traditional third-party services as an integral parts of its broader equipment selling/leasing, parts supply, and financial services package offered to the IBM marketplace. Doing a good part of its business in the retail environment (close to one-third of revenues from POS systems and controllers, retail PC products, etc.), DCM's focus is not on the high-end of the IBM product line.

Although mainframe service is widely provided for large account customers, large systems contracts are not solicited; Dataserv focuses more on the specialized equipment used in its targeted banking and retail environments and on the smaller systems controlling them. Virtually all of Dataserv support is provided under contract due to the "full support" thrust of DCM's systems-oriented offerings.

- Brands supported include IBM, DEC, HP, Memorex, Telex, Datachecker, and NCR.

Products maintained are:

- Mainframes
- Minicomputers
- Microcomputers
- Peripherals

Services provided are:

- Manufacturer warranty
- Remedial maintenance
- Installation/relocation
- Preventive maintenance
- Fourth-party maintenance
- ECO/FCO change orders
- Refurbishment
- Consulting
- Conversion/upgrade
- Training
- Equipment sale/lease

Competitive Focus

Dataserv sees itself as the true “niche marketer,” targeting its brand of service to a very specific segment of the market and designing a support program around their needs. Basing its business around the specialized needs of those “certain customers, of a certain size with certain products,” Dataserv concentrates efforts on Fortune 500 IBM accounts, especially within the retail and financial environment.

Concentrating on these users’ specialized equipment (POS, ATM, etc.) and the small systems that control them, DCM offers potential customers a support plan customized beyond the scope of contract terms and conditions. Dedicating field engineers to specific accounts, Dataserv trains each field engineers on a customer’s specific system and configuration, as well as in the customer’s philosophy and operations and their effect on support needs.

Able to provide customized hardware, financing and maintenance, and supply services needed to keep these users running, Dataserv stresses the synergy that results from the combination of its offerings. Listing its main competitors as “IBM, one, two, and three,” Dataserv focuses on its specialized brand of service and its ability to offer it at lower prices in its fight against the industry giant.

Market Outlook

Although recent moves by IBM to regain lost service revenues have obviously had an effect on Dataserv’s target market, DMC trains itself to be creative in its attempt to compete against new market pressures. And, with its broad range of support service offering, Dataserv possesses the resources necessary to differentiate itself from the pack: Few third-party support operations are backed by equipment sales, leasing services, and a comprehensive parts selling operation to complement its maintenance offerings.

Its willingness to supply other TPMs and the self-maintenance market with needed parts and supplies even allows Dataserv the chance to profit in the face of rising competition in the service marketplace. Dataserv’s competitive philosophy allows it to take full advantage of the diversity in its operations and to compete creatively in an increasingly crowded marketplace: “There will always be a need.”

Strategic Perspective

DCM plans to continue its creative approach to competition, especially within its existing customer base. Planning to offer expanded services in terms of products and offerings, Dataserv will increasingly take on the role of systems integrator in the future, offering services ranging from

software installation and component burn-in to user training and configuration management. Also planning to back up users in capacities recently imposed by IBM user involvement plans (CPAR, CSA, Mid-Range Amendment), Dataserv will introduce "help-desk" management, training, and support offerings to users within the IBM customer base.

Dataserv plans to take advantage of its established presence within the financial market and expand services to the banking environment as well. Akin to its current financial targets are users in the insurance sector, and Dataserv has designs on this sector of the market as well. Aiming for major PC network users in the industry, DCM has set a goal of expansion in its networking offerings, including software design, sales, and eventually support in the area of diagnostics. Its new parent, BellSouth, a leader in the communications industry, will undoubtedly work to grow its telecomm support abilities, well complimenting its desired growth in the networked systems environment.

Beyond Dataserv's focus on increased penetration within its existing customer base lies a secondary goal of increasing its hold on Fortune 500 accounts, especially in areas outside of its current geographic strongholds. Aiming to bring an additional 100 of those top accounts into the fold by 1991, Dataserv has designs on an additional 50 cities in the US. Reflected in its the 80% expected growth figure DCM reported for 1987, Dataserv's ambition to become the leading single-source service provider in its market is a very serious one.

Decision Data Service, Inc.

One Progress Avenue
Horsham, PA 19044
(215) 956-5801

- William Catiana, President
- \$15 million in TPM revenues, 1986
- 30% growth expected for 1987
- Active 7 years in the TPM market

Company Update

Decision Data Service, Inc. has been serving the third-party market since 1980, with over 15 years of maintenance experience behind it as the support arm of its parent Decision Industries' products. Soon after its initial step into the TPM marketplace, Decision Data Service (DDSI) began its aggressive search for acquisition candidates and has proven itself successful at its expansion through acquisition strategy.

Successfully melding the support operations of numerous firms purchased in the IBM and mid-range marketplace, DDSI's most recent venture was into the DEC arena with its purchase of the John Iverson Company. Acquiring the maintenance base of the California-based DEC broker, the purchase marks the beginning of an expected aggressive search for established resources in the DEC marketplace.

Maintenance Operations

Decision Data Service is offered nationwide through a support operation shared between Decision Industries' equipment owners and its third-party customers. DDSI's 700-plus service employees work out of over 100 offices across the US, with parts and dispatching capabilities in place at each location. Currently in the process of revamping its call-management and inventory systems, DDSI plans to further integrate the two functions over the next year to more closely tie together regional and local operations.

Although dispatching is provided at the local level for smaller accounts, national customers are provided with centralized support, offering a single point of contact for all service needs regardless of specific system location. An estimated 300 to 350 field technicians provide support on-site, and although depot support is available through each of the 100+ DDSI offices, mail-in/carry-in support is primarily delivered through two main depot locations.

Service Coverage

The majority of DSSI's business comes from the IBM and compatible marketplace, although its dependence on IBM equipment support is slightly diminishing with the recent additions of Texas Instruments, Wang, and DEC products to its menu. Ninety percent of DSSI revenues are derived from support related to minicomputer products, the remaining 10% of micro and PC components are mostly introduced as part of a larger small systems-based contract. With very little "standalone" work provided, under 5% of DSSI's business comes from per-call services. A high desire for consistent uptime among DSSI's small systems clients drives its heavy bias toward contract provision, with 95% of support performed under contract.

- Brands supported include IBM, DEC, Texas Instruments, Wang, Centronics, Corvus, Dataproducts, Epson, Florida Data, Intecolor, Mannesmann Tally, Okidata, Printronix, Sony, and Visual Technologies.

Products maintained are:

- Telecommunications
- Minicomputers
- Modems
- Superminicomputers
- Multiplexers
- Microcomputers
- Front-end processors
- Peripherals

Services provided are:

- Manufacturer warranty
- Disaster recovery
- Remedial maintenance
- Installation/relocation
- Preventive maintenance
- Fourth-party maintenance
- ECO/FCO change orders
- Refurbishment
- Software maintenance
- Conversion/upgrade
- Consulting
- Equipment sale/lease
- Training

Competitive Focus

DDSI originated its third-party offerings within the IBM marketplace and continues to maintain its primary presence within the IBM arena. Stressing its single-source advantage over IBM as a service vendor, DDSI concentrates its efforts on the IBM mid-range market. DDSI has expanded its product menu over the past few years to include Texas Instruments and Wang in the mid-range and markets its experiential advantage (having been in the service business since 1969) over other TPM's competing in these marketplaces.

DDSI feels its strength lies primarily in its ability to understand the service environment, and appropriately competes on a quality performance basis instead of being preoccupied with pricing issues. Its long-term exposure to the needs of mid-range users of Decision Industries equipment has provided DDSI with a comprehensive understanding of the problems and needs of small systems users.

On this level, DDSI feels its primary competition coming from IBM, Wang, and TI, and from a number of third-party vendors highly active in its targeted geographic and product arenas. Major players like Sorbus, Servcom, CDC, and Intelogic Trace are considered direct competition on a national basis, and more local threats come from East Coast vendors like Econocom and XL/Datacom.

Market Outlook

Competition is heating up within DDSI's targeted marketplace, especially in terms of its IBM focus. Reporting considerable concern over the pricing battles introduced by the announcement of IBM's CSA, DDSI is currently preparing a retaliatory package offering similar levels of discounts, with a lesser degree of user involvement required. With 90% of its service business coming from the minicomputer marketplace, IBM's Mid-Range announcement and the effect it will have on the competitive climate will undoubtedly fan the flames.

The recent increases seen within the IBM competitive environment may well have played a considerable part in DDSI's decisions to venture into the DEC and other small systems markets. Also contributing to expansion has been DDSI's desire to increase the concentration of covered equipment in the geographic areas it currently serves, bettering its chances of picking up third-party work in areas where operations are already established. Its potential customer base was greatly augmented by the introduction of TI and Wang systems support last year.

With its heavy involvement in small systems service, DDSI has inevitably gained contacts and provided support within the network environment. Although it has no standard offering geared toward the network

market, a packaged network support plan is currently "in the works" and should further strengthen DDSI's presence in the mid-range marketplace.

Strategic Perspective

DDSI can be expected to continue in its aggressive acquisition mode, especially within the DEC arena. Bringing in \$15 million in third-party revenues in 1986, DDSI expects a gain of between 25 and 30% on this income in 1987, and continued acquisition activities will undoubtedly play a major part in this growth. Its most recent purchase (of John Iverson Company) increased its presence in northern California and shows a concern over expansion on the West Coast. Currently, DDSI's national presence is heavily concentrated along the eastern shoreline.

Although admitting its immediate preoccupation with the DEC marketplace, DDSI is also maintaining attention on the IBM and newer Texas Instruments and Wang markets. Directed at the IBM sector will be DDSI's response to the Corporate Service Amendment as well as the introduction of disaster recovery services, now in the pilot program stage on the East Coast for IBM customers. A new scheduled preventive maintenance offering is expected to be announced in the TI marketplace, and a general up-scaling of software support is slated for the very near future.

DDSI is working toward rounding out its support menu, looking to offer a "full support package" to the mid-range market, including such broad component services as systems leasing, installation, upgrade, and on-going hardware and software support plans. With its strong background in the service of small systems and components, a full support package will help DDSI further penetrate the growing network environment.

DynService Network

1875 Whipple Road
Hayward, CA 94544
(415) 732-3080

- Wayne Adams, President
- John Milks, Vice President, Service Operations
- 20% growth expected for 1987
- Active 3 years in the TPM market

(previously Dynelectron Service Network)

Company Update

The daughter organization of \$750 million DynCorp services conglomerate, The DynService Network emerged as a major player in the fourth-party/depot repair market this year through its continued acquisition activities. With the financial backing of its parent corporation, DynService has been among the most aggressive and most successful of the maintenance organizations staking market growth on acquisition.

1984 marked the entry of DynCorp into the fourth-party maintenance marketplace through its purchase and merger of Computer Repair Sales Corporation and Unitrace operations. Continuing to scout the market for additions to its Dynelectron depot network, Granada Data Systems and Three Delta, both Silicon Valley-based companies, were acquired the following year.

Eager to increase its presence on the East Coast, the operation added the New England-based disk drive depot facilities of Quantum and Shugart over the following two years. Integrating and enhancing its network as it grew, the original Dynelectron Corporation emerged in its latest iteration as DynService Network this year.

Maintenance Operations

Concentrating resources and expansion in the depot repair market, DynService has increased its number of depot facilities to six through its recent acquisitions in New Hampshire and Massachusetts. Providing repair support nationwide through its mail-in depot program, all of DynService's support is implemented at these six sites' re-manufacturing and repair facilities.

Due to the nature of DynService's depot-based business, the majority of its revenues are derived from flat-fee work, as opposed to the high concentration of contract revenues of most large maintenance organizations.

Only approximately 30% of DynService revenues are attributable to such long-term agreements, the remaining 70% coming in on a per-incident basis.

DynService support staff numbers fluctuate with the influx of newly acquired operations personnel and the constant reorganization and integration of the network's resources. At present, approximately 70% of the work force is dedicated to repair implementation, roughly 20% depot engineers and 50% as back-up support staff. The remaining 30% of total staff supports the repair team, 10% in management positions and the final 20% in administration.

Service Coverage

DynService's recent East Coast enhancements to operations have strengthened its position as a nationwide depot organization as well as providing the capacity to broaden its product coverage. Expansion in the DEC market (with the addition of MicroVAX and VAX Cluster component support) as well as in various lines of printer products (adding Olivetti, Printek, Toshiba and Businessland models) was seen over the past year.

With the adoption of the disk manufacturing and depot facilities of the Shugart and Quantum acquisitions came a number of additions in terms of drive support, adding top names such as Unisys, IBM, Siemens, Ampex, and Qume to the DynService menu.

DynService remains open to customer needs in the evolution of its service offerings, at present supporting over 200 product types ranging from circuit cards to disk heads to power supplies. Currently the bulk of support revenues are derived from within the mini and microcomputer sector, but coverage ranges from mainframe products through peripherals and telecommunication products.

- Brands supported include DEC, IBM, Shugart, Toshiba, Diablo, Compaq, Quantum, Rodime, Okidata, CDC, Tandon, Century, Seagate, IMI, Wyse, Ampex, CDS, CMI, Intel, Telex, Unisys, Epson, IBM, Qume, Siemens, Mitsubishi, Miniscribe, NEC, Worldtech, DG, HP, Hitachi, ISS, Memorex, Wangco, Western Dynex, Kennedy, Businessland, Mannesman Tally, Olivetti, Printek, Centronicx, Datacom, Data Royal, Data South, Genicom, Lear Siegler, Mark IV, Qantel, Tandy, Texas Instruments, and UMI.

Products maintained are:

- Mainframes
- Telecommunications

- Minicomputers
- LANs
- Superminicomputers
- Modems
- Microcomputers
- Multiplexers
- Peripherals

Services provided are:

- Manufacturer warranty
- ECO/FCO change orders
- Fourth-party maintenance
- Conversion/upgrade

Competitive Focus

DynService Network holds an enviable position in the services market, working with vendors of third-party support and competing against few fourth-party vendors with resources comparable to its own. As the largest contender in the depot support market, DynService has actually benefitted from the increasing competition in third-party services through its position as a materials supplier to the TPM market. DynService, wisely, has no intention to break into direct competition with third-party maintainers. Preferring to cultivate the symbiotic relationship between the two service functions, DynService entertains no plans to enter into the on-site support business, but rather will restrict growth to its current style of depot support offerings.

DynService also serves the OEM marketplace, supporting the re-manufacturing function after the equipment vendor has "abandoned" the product for newer models. Most of the company's dealings with OEMs comes as a vendor's products enter the final stages of the product life-style, as the few units remaining in the marketplace no longer warrant a full commitment of resources. DynService can step in to affect needed re-manufacture or repair and relieve the original manufacturer to concentrate capacity on new model development.

A third major category of Dynservice customers are systems integrator or turnkey vendors, whose systems' varied product lines makes their own support provision economically unfeasible. These vendors, often working with a wide number of system components, can farm work out to fourth-parties like DynService while still maintaining system account control. A number of TPM vendors with more limited capacities favor this method of support over losing business to a larger TPM as well.

DynService is active in all major industry categories through such indirect support dealings, but primarily serves the manufacturing, distribu-

tion, services, and government markets. Categorically, the network plans to continue to target OEMs and third-party service vendors in its efforts to become the leading materials support supplier in the maintenance industry. In this area, DynService sees its primary competition coming from other FPMs, namely ESS, FRS, CPX, Data Exchange, Data Products, and Data Memory.

Market Outlook

A number of forces within the support market which have fueled competition and shakeout in TPM have, in fact, lead companies like DynService into success. Greater dependence on efficient operations in the face of decreasing support prices has caused a number of TPMs to turn to fourth-parties for back-up to their own operations. The use of FPMs to reduce operating costs in terms of reliable materials support has grown along with competition in TPM.

DynService's president, Wayne Adams, in fact, views the ongoing consolidation within the service arena as a healthy phase for the "maverick industry"; of course, a good part of DynService's growth has been a part of this merger/acquisition trend, and apparently plays no threat on a company stabilized by a \$750 million parent standing behind it. What the trend toward consolidation has done for the remaining third-party players, however, is bring the importance of good materials support to the forefront and make back-up operations like DynService a key part of the support marketplace.

DynService's goal is to be known as one of the largest materials support houses in the industry, supplying users with the quality and variety of logistics services they need. The success of DynService's TPM and vendor customers is dependent on the reliability of the parts supplied, and DynService keeps close tabs on the quality of their outgoing products. The operation is departmentalized by product line, to assure proper measurement of quality and customer satisfaction within each product area. Parts are warranted for a full 180 days, and warranty return is measured against yield, along with the monitoring of on-time deliveries and customer complaints.

Strategic Perspective

DynService will undoubtedly continue its aggressive search for acquisition candidates to reinforce its position as the leading nationwide fourth-party support source. Perceiving that a good amount of business from users preferring not to ship components is lost to more local firms, the company will concentrate on closing the gaps between its mail-in depot facilities. Expansion on the East Coast, as well as in major mid-western hubs (Chicago, Dallas, etc.), would highly benefit the operation.

Continued growth will also involve the further consolidation and cultivation of internal operations, and will most likely involve increased activity of DynService's nationwide sales force, a unique aspect of the FPM's operations. As opposed to most fourth-parties who depend on tele-marketing selling efforts, DynService prides itself on its direct sales force and its part in account management duties. Holding sales offices in San Jose, Los Angeles, Minneapolis, Salem (NH), and Atlanta (GA), the information on customer needs filtered in through the sales force becomes a major driving force in the continued evolution of DynService's products and operations.

In line with its goal to provide a full menu of support to the industry, DynService has revealed plans increase activities in telecommunications service and laser printer support, as well as provide a new offering in inventory management. The company, expecting to add at least two additional support locations over the next year, forecasts increases in revenue amounting to at least 20% in 1987.

General Electric Computer Services

5775 Peachtree Dunwoody
Atlanta, GA 30348
(404) 843-6200

- A. W. Crites, General Manager
- \$180 million in TPM revenues, 1986
- 10% growth expected for 1987
- Active 23 years in the TPM market

(previously GE Integrated Communication Services/RCA Data Services)

Company Update

1987 proved to be a year of transition for GE as the company adjusted to its recent marriage to RCA and set up house as General Electric Computer Services (GECS). The combined operations complimented each other well in terms of support coverage but had a great deal of organizational overlap, a problem common in mergers of this size. In reconciling the structure of the new organization, the majority of cut-backs came on the RCA-side, layoffs concentrated in the staff and administrative areas of the acquired operation.

By the middle of this year the two operations had come to terms as GE Computer Services, and the company was aggressively marketing its expanded support capabilities. The addition of RCA's business base has expanded the high end of GE's systems support menu as well as introducing service experience in a number of new brand areas. The combined resources of two of the largest TPM contenders of 1986 make the new GE Computer Services a formidable competitive force in the 1987 third-party marketplace.

Maintenance Operations

GECS added approximately 600 service people to its ranks over the past year, the growth due primarily to the merger with RCA's service staff which, when acquired, employed around 700. GE Computer Service's headcount now tops 1800, two-thirds of whom are bag-carrying field engineers. Another 235 work as a support staff to assist engineers in the field, and around 300 additional staff members assist administratively. The entire operation is overseen by a total of 65 managers, from the senior staff level down to local management.

The RCA agreement also fortified GECS in terms of service coverage, RCA having reported 160 locations in service at this time last year. GECS now maintains over 280 support locations — quite a jump from the 85 total offices reported in 1986. Twenty-eight of these service

locations serve as mail- or carry-in repair depots and parts are inventoried at each service site as well as at many user sites.

To augment their inventory operations controlled at a national level, GECS is currently centralizing its call-taking operations. Both the National Parts Inventory and Dispatching Centers are located at GECS headquarters in Atlanta and are implementing full automation to help combat the rising costs associated with nationwide support coverage. A bank of Prime computers are currently being brought up to speed to coordinate and control incoming calls and manage field engineer work load and automation down to the field technician level is being considered by the growing operation.

Service Coverage

GECS, now strengthened by the experience of the adopted RCA staff in the higher end of the market, is currently focusing its energies in the DEG and Data General minicomputer marketplaces. But, as the synergy between the two operations grows, GE plans to extend support offerings in terms of both products and vendors serviced. At this time, GECS boasts coverage of over 20 brands of minicomputers and more than 100 vendors' products in the PC/datacomm arena.

Although the RCA Data Services Division had the operating capabilities to support machines into the mainframe range, GE has yet to formally include large systems service among its marketed offerings. Small and micro systems and peripheral support make up the bulk of GECS revenue currently, with strong supplemental business coming from their test instrument support and rental/leasing programs.

Business volume is broken into four functional areas, with roughly 25% currently derived from the mini marketplace, a share of revenues which can be expected to expand as GECS concentrates on growth in this area. The largest portion of business (35%) now comes from datacomm support (excluding mini products), with another 25% derived from the related rental/lease operations, which focuses on the PC and test equipment area. The possibility of GECS growing this rental/lease aspect of their business along with its expansion in small systems support is very good, GECS now proud of its ability to cover PC users with rentals or loaners when their system goes down.

A new service introduced this year is expected to enhance GECS revenues through the dealer channel. GE-Serv Partnership programs provides resellers with two ways to provide their customers with nationwide support coverage through GECS. The first, called a second-party agreement, provides a channel through which the reseller can subcontract user support to GECS while retaining control over the account and its administration. A second, the sales representative agreement, works

the reseller staff as an extension of GECS's sales crew, providing commission-based compensation for their efforts. Announced officially in September of this year, GE-Serv will work to greatly enhance GECS delivery channels.

In terms of support delivery, 80% of GECS support is provided on-site, the remaining 20% attributable to its mail-in depot program. The majority of GECS business is derived from contract revenues (60%), the remainder equally divided between time and materials coverage and flat-fee work.

- Brands supported include DEC, DG, IBM, Point-4, ADDS, Altos, Amdek, Apple, AT&T, Centronics, Century, C.Itoh, Compaq, Computer Memories, Concord, CDC, Data Products, Datasouth, Datatronix, DCA, Diablo, Edge, Emulex, Epson, Fujitsu, Genicom, Hayes, Hazeltine, Honeywell, HP, Intel, Kennedy, Lear Siegler, 3M, Micom, NEC, Norand, Novell, Okidata, Onyx, Paradyne, Plessy, Printronix, Quadram, Qume, Racal Vadic, Rixon, Siemens, Systems Industries, Sytek, Tandon, Tecmar, Tektronix, Teleray, Televideo, Telex, Texas Instruments, Toshiba, Wyse, and Zentec.

Products maintained are:

- Minicomputers
- Telecommunications
- Superminicomputers
- PBX
- FAX
- Microcomputers
- LANs
- Satellite earth stations
- Peripherals
- Modem

Services provided are:

- Manufacturer warranty
- Remedial maintenance
- Installation/relocation
- Preventive maintenance
- ECO/FCO change orders
- Refurbishment
- Training
- Conversion/upgrade
- Equipment sale/lease

Competitive Focus

As the new GECS introduced itself to the market with its initial ad campaign, its competitive focus was clear: "GE Computer Service. Bigger. Better." The combination of two of the largest independent service operations greatly strengthened the organization's presence in the TPM industry, both in terms of its "single source" capabilities and in terms of sheer size and potential coverage. GECS sees its newly augmented service capabilities as key to its differential advantage.

The tight fit between the two organizations works well to support GECS's focus on flexibility, and through its wide (and growing) range of resources, its ability to commit to whatever is needed to become the user's single service source. The broad line of hardware serviced allows GECS to target a major portion of the mixed-vendor market, and backed by its large rental and leasing operations, GECS can offer users a broader range of pricing and support plans than many vendors specializing only in traditional TPM service.

GECS's involvement in the test equipment area undoubtedly feeds its more traditional TPM business as test equipment clients are introduced to the computer leasing and support capabilities of their vendor. Marketing literature specialized for each of the four major business areas of GECS (Data Systems Service, Electronic Services, Rental/Leasing Services, and the new GE-Serv program) are designed to introduce the client to the alternative offerings in each of the other programs. The fit of the four service areas bids well for both users (able to solve a broad line of support problems through one vendor) and GECS (in its ability to feed and support other divisions in operation and sales.)

GECS primarily targets Fortune 500 accounts, allowing its product to be shaped by its customers' demands. Little focus is placed on specific industry segments, but GECS reports that it is "toying with the idea," as are others in their market, of specifically addressing the needs of certain vertical market niches. GECS sees a number of other major national players as its primary competition for these top 500 accounts, in particular, TRW, Sorbus, and Intelogic Trace, within its specific product markets.

GECS's planned expansion in the DEC market will bring it head-to-head with a number of other major TPMs focusing on that marketplace, including the likes of Control Data Corporation as one of the most established and versatile TPMs now serving DEC users. Although the market may expect GECS's "single source" philosophy to draw it into the software support race CDC has spearheaded, GECS has no plans to expand into the software area. Seeing software as an area with little profit potential, GECS holds firm that vendor-supplied software support is difficult to improve upon.

Market Outlook

Growing competition over Fortune 500 targets from major TPMs like GECS has been fingered as a major factor hedging manufacturers into the rash of recent aggressive changes made in service policy. In attempts to defend the equipment vendors' shrinking service revenues, new extended warranty options and similar protective measures are hitting GECS and its competitors where it hurts: in the lower-end data-comm arena, where a good percentage of TPM revenues are derived. Warranties locking third-party sources out for one to three years are becoming increasingly common, and GECS identifies them as an important negative driver in terms of market growth.

At the same time, discounting policies like IBM's CSA are reshaping service competition, and although GECS doesn't base its business around IBM support, the threat of such discounting plans is seen as very real. Although none of its main OEMs are currently offering CSA-type agreements, GECS remains very aware of that possibility in the future.

Remaining confident in the face of these increasing pressures on the manufacturer side, GECS prefers to take a step back from the marketplace and look at the results of these actions from "both sides of the fence." Although recognizing these actions as targeted at TPM competition, GECS also foresees the drain such policies force on the service revenues of manufacturers in stating them. In the long run, GECS sees support moves such as these as forcing both users (who are forced to look at support as a longer-term cost) and vendors (forced to look for alternative revenues) to work smarter.

Strategic Perspective

GECS, happy and prospering with its new partner RCA, has full expectations to continue to seek out complimentary relationships to further augment its TPM operations. Although a few additional candidates were under consideration, no additional acquisitions have made since the corporate adoption of RCA. With expectations of near 10% growth over last year's \$180 million in third-party revenues, plans are in place to actively continue the search for potential acquisitions, joint ventures and partnerships that will serve to strengthen GECS' competitive stance.

GECS clearly sees the operational advantages larger vendors enjoy through economies of scale, and views its own acquisition moves (as well as the consolidation being seen within the entire TPM market) as a natural effect of the condition. Further driven on the user side by increasing requirements for true "single source" support, the market is demanding that vendors increase their capabilities and product coverage. These two factors working together are paving the way for the rise of large, conglomerate operations like GECS.

In line with the increases the RCA (and future planned) acquisitions provide in terms of support capabilities, GECS sees the network support market a promising one. Focusing efforts in minicomputer and data-comm support, GECS appears to be well prepared to support the networking environment into which DEC and other minicomputer manufacturers are leading the market. GECS's flexible range of services and broad product coverage suit it well to the fast growing network marketplace.

Grumman System Support Corporation

90 Crossways Park Drive
Woodbury, NY 11797
(914) 682-5304

- Alan Andrus, President
- \$36 million in TPM revenues, 1986 (INPUT estimate)
- 20% growth expected for 1987
- Active 10 years in the TPM market

Company Update

Grumman's experience in third-party support began internally, as a necessary part of supporting the complex network of equipment behind its aircraft systems division. Seeing firsthand the advantages TPM offers to its users and the potential behind the capabilities it had developed, Grumman initially approached the third-party marketplace around 1977 with its single-source offering.

Having proven itself internally, Grumman's third-party operation won the financial backing of its \$3 billion parent corporation to help it grow a business in the booming TPM market. Its initial acquisition of the Computer Systems and Support Corporation, later followed by the purchase of Arrow Electronics, provided Grumman Service and Support Corporation (GSSC) with greater coverage and an established customer base across the US. Now a major player among the top TPMs, GSSC has stayed strong in the face of increasing competition in its small systems support marketplace.

Maintenance Operations

Grumman's third-party support is delivered nationwide through its staff of 500 dedicated support people. With 90% of its service delivered on-site, field engineers are stationed at GSSC's 40 service offices across the US and are controlled at the national level through Grumman's newly centralized dispatching system at its headquarters location. Customers are still allowed the option, however, to contact a branch office with a problem, and dispatching and escalation procedures can be handled by an account contact at the local level.

GSSC also provides mail-in/carry-in support through a network of four main depot locations. Depot and on-site services are supported by its three national parts centers, and local inventories at most branch locations are tracked and maintained through Grumman's on-line logistics system.

Service Coverage

GSSC attentions remain trained on the DEC and DG marketplaces, primarily stressing its service in the minicomputer arena and its extensive coverage of a variety of micro systems. Although GSSC does provide services up to the mainframe level, its concentration will continue on the mid-range contract market. Currently over 90% of GSSC service is provided to users under contract.

Grumman recently expanded its contract coverage in the telecomm market, through an agreement signed with American Interconnect Systems (NY), to service its existing customer base and provide new user installation and maintenance services. Emerging from experience gained internally through support of Grumman's own large voice network, GSSC has plans to expand its telecomm offerings over the next few years, increasing GSSC's power to further penetrate the growing mini and micro networking market.

- Brands supported include DEC, DG, CDC, IBM, ADDS, Anderson Jacobson, CIE, Citizen, Cordata, Dataproducts, Diablo, Epson, Emulex, Fujitsu, Hayes, Kennedy, Mitel, NEC, Okidata, Rolm, STC, and Televideo.

Products maintained are:

- Mainframes
- Telecommunications
- Minicomputers
- Superminicomputers
- PBX
- Microcomputers
- LANs
- Multiplexers
- Peripherals
- Modems
- Front-end processors
- FAX

Services provided are:

- Manufacturer warranty
- Remedial maintenance
- Installation/relocation
- Preventive maintenance
- Fourth-party maintenance
- ECO/FCO change orders
- Refurbishment

- Software maintenance
- Conversion/upgrade
- Consulting
- Equipment sale/lease
- Training

Competitive Focus

Grumman, feeling its most serious competition from the rival DEC and DG support organizations, continues to see its mixed-vendor capabilities as its competitive key. Even with DEC's increasing single-source role with its DECompatible services, GSSC feels that it offers the market an important alternative to manufacturer supplied support and, as an independent service vendor, can prove itself more cross-competitive in the market.

In the face of competition from leading third-party contenders TRW and Sorbus, GSSC stresses its quality support record and points to its prime source of new business — customer referrals — as evidence behind its claims. Focusing on the federal, financial, medical, and manufacturing industries, Grumman concentrates on developing the skills and product coverage important in meeting the needs of these users, while not limiting itself within specific vertical markets.

Market Outlook

GSSC plans to continue its focus on delivering quality service to its select customer base, and will continue to expand its capabilities in areas complementing its current product line. In response to the increasingly competitive support strategies being introduced by manufacturers, GSSC will attempt to strengthen ties within the manufacturer representative environment, as well as expand its service menu to meet the threat.

While most third-party vendors are paying serious heed to the increasing prevalence of special contract offerings being made by manufacturers, GSSC, in contrast, sees certain underlying benefits in such tactics. Grumman believes that programs like IBM's CSA actually work to increase users' awareness of support costs and of the existence of alternative support plans, including third-party offerings. Viewing IBM's plan as doing more harm to other equipment vendors who fail to meet the challenge, GSSC looks at the increase in competition in a much more positive light than most TPMs.

Although GSSC does not compete primarily within the low-end IBM marketplace, its heavy involvement in MicroVAX product support has spurred it to provide alternative maintenance plans for small-ticket item users looking for ways to cut support costs. Depot plans offered by

GSSC provide significant cost savings; users requiring on-site coverage receive regularly scheduled preventive maintenance to provide them with a visible service for the contract dollar invested upfront. Grumman, aware of the sensitivity of low-end users to the support investment, attempts to address its customers cost concerns before they are tempted by another vendor's alternatives.

Strategic Perspective

GSSC, attributing a great deal of its early growth to an acquisition strategy, now enjoys an established presence as a big name player in the DEC and Data General marketplaces. Although GSSC admits it is still actively looking for potential acquisition candidates, it is also concentrating on expanding its service offerings to assure its place in the top TPM ranks.

Among new service products currently in the works is a network support offering, which will serve to better position Grumman in the growing minicomputer marketplace. Especially important within the DEC arena, network services will become increasingly significant in the small systems competitive support market as users continue to turn to networked systems to meet their processing needs. Specific network support plans are currently being readied for the market and will be well complimented by Grumman's new telecommunications support offerings announced this year.

Another area slated for expansion is software support, which will also serve to strengthen GSSC's presence in the network arena. Although Grumman is now offering some degree of software support to a number of its customers, the availability of software services is currently very limited. Still in early planning stages, Grumman's entrance into the software area will help defend its claim in the "total systems maintenance" market.

Very recently, a new dealer program was announced, opening a new channel for Grumman's expanding menu of services. The Dealer Customer Solution plan will provide GSSC with increased visibility at a critical point in the support purchase decision. Aimed at DEC and DG reseller organizations in particular, the offering should be instrumental in helping GSSC meet its 20% growth target for the coming fiscal year.

Intellogic Trace, Inc.

8415 Datapoint Drive
San Antonio, TX 78224
(512 699-5700)

- Clark Mandigo, President and CEO
- \$156 million in TPM revenues, 1986
- Active 2 years in the TPM market

Company Update

Despite the aggressive leadership behind the Datapoint spinoff, Intellogic Trace (IT) faced its third year of declining revenues in 1987, with net earnings falling more than \$10 million over the past fiscal year. Blaming losses on a higher than expected defection rate from within its Datapoint customer-base, IT is gearing up to reinforce its foreign third-party business, planning expansions in product menu and in its physical operations.

As part of its expansionary strategy, IT adopted an aggressive acquisition plan, headed up by Chairman Asher Adelman, long known for his take-over savvy. Currently in negotiations with \$760 million Telex Corporation, the purchase will be the third consummated within the past year by Adelman for his IT interest, should the terms be accepted by Telex shareholders. Two smaller deals were cut earlier in the year, both serving to strengthen IT's operations within its home state. Closed in mid-summer of '87, the buy-out of Houston-based Texas Troubleshooters accompanied the purchase of DP Enterprise's Texas business-base and fell in line with IT's plans to expand in the mid-range IBM marketplace. Despite falling income, IT has managed to leverage its earnings to nearly double its accumulated assets over 1987.

Maintenance Operations

The San Antonio-based IT, with a strong presence in the high-tech areas of its home state, currently maintains over 230 service locations across the US, including offices in Hawaii, Alaska, and Puerto Rico. Performing 95% of its support on-site, a field force of over 700 engineers staff these offices as part of its 910 person operations crew. An additional 330 people keep IT's logistics operations running, coordinating inventories stocked at more than 200 local parts depots, managed and fed by 23 Intellogic inventory centers.

The headquarters location serves as IT's main carry-in repair center, but 17 additional depot locations provide nationwide mail-in/carry-in support. A new offering introduced to the IBM marketplace in 1987 expanded the meaning of "depot services," with an on-site option for major installations of PCs and small systems. Described as an "on-site depot alterna-

tive," the new Cluster Call Service allows users to spread the costs of a service call across a number of accumulated failed units. The IT engineer will repair the defective units at the customer's site while charges are rendered at a pre-set per-unit fee. As part of IT's blitz on the IBM marketplace, the new plan was one of a number offered to large national accounts outside of IT's non-Datapoint customer base.

Service Coverage

Further sharpening its focus on the IBM arena in 1987, a second plan was introduced this year which set new response time standards for the small systems marketplace and provided money-back guarantees as well as directly relating costs to the number of machine failures. The "Shared Risk" program allows users to pay an initial retainer fee and protect the service investment with a pre-set cost-ceiling agreement. Aimed at accounts with a large number of micro-based systems and terminals, the offering addresses the needs of IT's primary customer base, network users currently comprising 75% of IT's business.

Approximately 95% of IT service is provided under contract, with Intelogic offering services ranging from consulting and installation to upgrade and refurbishment work. A number of warranty agreements are also maintained with micro and peripheral manufacturers, the latest signed with Bluebird Systems, a value-added reseller of IBM-based micro systems. In all, over 100 different manufacturers products are included in IT's product menu, and management has stated a commitment to further broaden Intelogic's product mix over the next year.

- Brands supported include Compaq, Convergent Technologies, Datapoint, IBM, Micro 5, Nestar, Televideo, Zenith, Pactel, Amdek, Ampex, Facit, Kimtron, MTR, NEC, Paradise, Princeton, Quadram, Samsung, Taxan, Wyse, Anderson Jacobsen, Case, Codex, General Datacomm, Hayes, Racal-Vadic, Unixversal, C.Itoh, Canon, Cordata, Dataproducts, Epson, HP, Imagen, Mannesmann Tally, Okidata, Panasonic, Printek, Printronix, QMS, Qume, Texas Instruments, Toshiba, Alloy, Cipher, Emulex, IOmega, Kennedy, Maxtor, Miniscribe, Mountain, Priam, Seagate, Tallgrass, Tandon, TEAC, Tecmar, Toshiba, Wangtek, AST, DCA, Herculese, Intel, Novell, Orchid, QMS, Quantum, Tall Tree, and Xebec.

Products maintained are:

- Telecommunications
- Minicomputers
- LANs
- Superminicomputers
- PBX
- Microcomputers

- Modems
- Multiplexers
- Peripherals
- FAX
- Front-end processors

Services provided are:

- Manufacturer warranty
- Remedial maintenance
- Installation/relocation
- Preventive maintenance
- Fourth-party maintenance
- ECO/FCO change orders
- Refurbishment
- Consulting
- Conversion/upgrade
- Training

Competitive Focus

Envisioning itself in direct competition with the manufacturers dominating its marketplace, Intellogic's competitive drive is based on providing users with services which will extend the useful life of the systems manufacturers are striving to replace. IT places IBM at the top of its list of rivals, also including equipment vendors DEC and HP among its major competition in the networked and micro-based marketplace. Its recent aggressive moves in the mid-range IBM marketplace provides users with a variety of support options, as well as guaranteed response times, and IT plans to continue to develop innovative service plans to meet the needs of its targeted users.

Also concentrating on increasing the efficiency of the delivery of its services, IT has established a comprehensive "customer call-back" program which allows management to keep a constant tab on surfacing problems. IT readily recognizes the relationship between profitability and effective service operations and, especially in the face of dropping revenues, is dedicated to increasing the efficiency of support delivery.

Market Outlook

Having trimmed down operating costs by over nearly \$9 million over the past year, IT put those savings to use in the development and marketing of new and aggressive service plans. Aiming new service offerings at its targeted non-Datapoint users, a number of IBM-related options were introduced, including uptime guarantees and discounts of up to 50% off of IBM's list for the System 3X line. Additionally, IT's response to IBM's CSA amendment was among the first to hit the third-party market-

place, providing users with greater discounts while requiring less user intervention in the service process.

Also significant was IT's approach to the software end of the System 3X market, with its introduction of a toll-free software hotline number for qualifying IBM users. Although IT has not made public any further intent to delve into software services, its dedication to full system support may well steer it further into the software side of maintenance. Especially as IT extends its system coverage in the small systems arena, the lucrative draw of software support will increase.

Strategic Perspective

Although its carry-over business from the Datapoint affiliation still provides better than three-quarters of IT revenues, the recent downturns in the Datapoint market have prompted Intelogic to turn attentions to new third-party markets in efforts to regain its footing. Admitting acquisition as a major part of its strategic plan, IT will continue to seek out complementary operations to extend its geographic coverage and increase its hold in the IBM marketplace. On top of its recent flurry of alternative marketing programs aimed at the IBM mid-range arena, Intelogic will focus its attention on acquisition candidates active in the System 3X marketplace and eventually extend its capabilities upward in IBM's mid-range line.

Also eyed for future growth is the burgeoning DEC market, IT slating entrance sometime within 1988. Although the DEC third-party marketplace is becoming increasingly crowded, IT's heavy involvement in network and telecommunications support will help differentiate it as a well-qualified maintainer of DEC's networked systems. Initial infiltration will be limited to the lower-end PDP and VAX lines, but growth will need to lead steadily into the higher-end VAX systems for IT to remain a strong contender in the competitive marketplace. The acquisition of smaller established TPMs involved in the DEC arena appears a likely path for IT, lead by the Adelman and Mandingo.

Of highest priority over IT's next fiscal year will be the turnaround of its falling revenues. Behind the assertive moves in the external marketplace will be equally aggressive actions aimed at containing costs and strengthening IT's internal organization. Always keeping one eye trained on users satisfaction, IT views moves toward increased service automation and more efficient service delivery methods as important benefits to the customer as well as the industry. IT remains as dedicated to satisfying its customers as it does to satisfying its business interests.

McDonnell Douglas Field Service Company

2361 McGaw Avenue
Irvine, CA 92714
(714) 250-1000

- Bert Novak, President, FSC
- \$23 million in TPM revenues, 1986 (INPUT estimate)
- Active 15 years in the TPM market

Company Update

One of eleven companies under the McDonnell Douglas Information Systems Group umbrella, McDonnell Douglas Field Service Company (MDFSC) has grown into a significant third-party player from its beginnings with the Microdata Corporation merger in 1967. Its later acquisition of Tymshare maintenance operations well equipped MDFSC for competition in the DEC marketplace, a market it has come to dominate over its 15 years in third-party support.

A number of top-level changes were seen in McDonnell Douglas Field Service management over 1987, most significantly the replacement of Vern Hart as FSC president, a position he held for the past five years. Tagged for a special assignment under MD Computer Systems' top executive, Hart was replaced by previous director of quality assurance and technical support for MD Network Systems division, Burt Novak. Also stepping into the upper ranks of MDFSC was Rich Heimann as Vice President of field operations. Coming from a background as distributed systems operations director for MD's health system company, Heimann's experience in field service as well as hardware integration will benefit MDFSC's expanding third-party business.

Maintenance Operations

McDonnell Douglas Field Service is currently staffed by a total of 1100-plus support people, with over 50% of its crew involved in field engineering. The pool of over 550 field engineers are backed by a support staff of 275 in-house as well as 110 in administration and another 165 in management. The high concentration of field technicians within MDFSC reflects the importance of on-site support to McDonnell Douglas business — 95% of MDFSC support is provided at the user's site.

Depot support is also an option available to MDFSC customers, although mail-in/carry-in services make up less than 5% of the company's business. Three major depot locations also house MDFSC's main inventories, as well as repair facilities equipped to offer support down to the board repair level. Electronic tracking of new and reconditioned spares between these central locations and all local inventories allow MDFSC to

locate needed parts anywhere in its 150 service locations across the US, including its offices in Hawaii and Alaska.

Service Coverage

McDonnell Douglas prides itself in the wide array of services it offers in the DEC marketplace, ranging from traditional hardware maintenance to refurbishment and training services. Its main line of products centers on DEC PDP and VAX systems, but MDFSC has yet to venture into support on the VAX 8XXX series machines. Over 100 brands of DEC compatible equipment compliment its core product menu, and microcomputers from the Xerox, AT&T, and IBM families round out MDFSC's full support offerings.

- Brands supported include AST, AT&T, Able, ADDS, Ampex, Archive, Centronics, Century, Cipher, C.Itoh, CDC, DCA, Data Printer, Dataproducts, Datatrol, DEC, Diablo, Dilog, EMC, Emulex, Epson, Fujitsu, Genicom, Hayes, HP, IBM, Ibis, Intel, Kennedy, Lear Siegler, McDonnell Douglas Computer Systems, MDB, Maxtor, Memorex, Mitsubishi, Monolithic, Mostek, NCR, NEC, Nissho, Novell, Okidata, Paradyne, Concurrent, Pertec, Plessey, Printronix, Qume, Racal Vadic, Remex, Seagate, Storage Technology, System Industries, Tektronix, Texas Instruments, Toshiba, Vector, Ventel, Versatec, Wyse, Xerox, and Zentec.

Products maintained are:

- Minicomputers
- Telecommunications
- Superminicomputers
- LANs
- Multiplexers
- Microcomputers
- PBX
- Satellite earth stations
- Peripherals
- Modems
- FAX
- Front-end processors

Services provided are:

- Manufacturer warranty
- Installation/relocation
- Remedial maintenance
- Fourth-party maintenance
- Preventive maintenance
- Refurbishment

- ECO/FCO change orders
- Conversion/upgrade
- Software maintenance
- Training

Competitive Focus

Able to leverage the exposure and experience gained through the business of other Information Systems Group companies, MDFSC remains highly active in the government sector, as well as in education, medical, and commercial industries. Although competition has traditionally been heavy within these target markets, MDFSC attributes its success to what it calls a “partnership” approach to service provision.

Attempting to position itself as a working associate in a customer’s business, MDFSC works closely with the user staff to determine the exact levels and types of support needed to fulfill the firm’s processing requirements and then constructs a program around these basic needs. This type of cooperative relationship between client and vendor allows MDFSC to “lend its expertise in hardware services to the client’s own expertise in their chosen business.” Maintaining an active role within the relationship, MDFSC monitors users’ changing needs as well as its own performance on the job to provide a “continual fine tuning” of its service delivery product.

Market Outlook

Facing DEC as its principal competitor, MDFSC appreciates the importance of automation in the delivery of its service product. With recent increases in product reliability users are experiencing, MDFSC is striving to offset the ensuing squeeze on service revenues by increasing the average number of users a given engineer supports. Cost control, including the extensive use of remote diagnostic tools and centralized resource management, is recognized by MDFSC as the key to positive growth.

Also a central issue in the consolidation of the TPM market, MDFSC feels that smaller firms who lack the resources to increase delivery efficiencies fall prey to the larger companies who have reached the “critical mass” necessary to operate at a competitive level. Although not a firm with an extremely aggressive acquisition history, MDFSC feels that consolidation within the third-party competitive market is far from over and recognizes the rapid growth potential behind an acquisition strategy. MDFSC stresses that it plans to hold its competitive ground by growing its product menu and developing new service offerings according to customer-defined needs.

Strategic Perspective

McDonnell Douglas is facing a rapid influx of competition within its target marketplace as increasing numbers of TPMs expand support offerings into the growing DEC line. MDFSC was once an unrivaled leader within the DEC arena; other third-party giants, including the likes of Sorbus and Unisys Customcare, are beginning to aggressively pursue the DEC customer base, some offering service on higher-end systems where MDFSC still lacks coverage. With DEC's internal push to market its networking capabilities in the high-end market, MDFSC could stand to profit from an upscaling of its product menu into the upper VAX lines.

Currently, MDFSC is supporting an array of telecommunications equipment and networks under corporate-owned Tymnet operations and is in the process of developing internal software support capabilities for its Computer Systems sister company. Expansion of its communications skills will likely surface in its third-party offerings and, although it reveals no current plans to extend software offerings to the TPM market, the increasing availability of third-party DEC software services may well entice MDFSC to join the competition.

MDFSC admits that its service business develops from the experience and knowledge base accumulated throughout the other business units under McDonnell Douglas Information Systems Group. Able to leverage its resources to efficiently fulfill its internal needs while it conducts its external TPM business, MDFSC has traditionally been guided by the larger corporate vision, and expansion within ISG is a good early indicator of probable third-party growth.

Momentum Service Corporation

Seven Century Drive
Parsippany, NJ 07054
(201) 540-9080

- Richard Schwobel, President
- \$70 million in TPM revenues, 1986
- Active 2 years in the TPM market

Company Update

Since its entrance into the third-party maintenance market as an independent operation in 1986, Momentum Service Corporation (MSC) has been struggling to maintain its place among the top TPMs in the IBM marketplace. Revenues showing no gain from the \$70-plus million reported in 1986, Momentum narrowly survived an attempted takeover by printer manufacturer Genicom near the end of last year. The highly publicized merger plan, which coincided with Genicom's acquisition of Centronics assets, was squelched in early 1987 due to a reported "poor financial fit" between the two companies. Momentum sources revealed that talks broke off over Momentum's falling operating margin and high debt ratio.

Momentum Services, even as a subsidiary of Mohawk Data Sciences, has had a history of near takeovers, including attempts by Datapoint's Asher Adelman, and telecommunications giant Contel over the past few years. Despite falling revenues, Momentum has also shown itself active in the acquisition scene, most recently purchasing the service operations of Beehive International, a terminal manufacturer based in Salt Lake City (UT). Although few of the 800 Beehive service facilities or employees were added to Momentum's ranks, the purchase brought over a significant amount of 3270-line customers to Momentum business and provided a good strategic fit with MSC operations.

Maintenance Operations

Momentum, with 85% of its support delivered on-site, provides service out of 144 service locations nationwide and maintains a crew of approximately 650 field engineers. Only a handful of Beehive technicians were reportedly added to Momentum's field force, and Momentum's total service staff remains under a 1000-person total.

Recently centralizing its dispatch operations in upstate New York, Momentum also maintains a full parts inventory at its Herkimer (NY) location and a West Coast stock near Qantel operations in Hayward, CA. Depot services are provided out of a total of 38 of Momentum's local offices and account for around 10% of Momentum's total business.

Service Coverage

Momentum offers a variety of support plans to its customers, ranging from a 99% uptime guarantee on high-end units down to deferred maintenance plans aimed at less critical systems. Upwards to 95% of Momentum's business is provided under one of its contract options, which allow users to choose response times and maintenance period best suited to their needs. IBM and compatible systems are the focus of Momentum's offerings, and, although PC support accounts for roughly 80% of current business, Momentum has sights set on expanding further into the IBM small systems marketplace.

In 1987, a number of programs aimed at the reseller market have expanded Momentum's service menu as well as its distribution channels. Product leasing programs were opened to value-added resellers and distributors, with financing provided through Momentum to assist in closing the sale. Momentum also entered the computer supplies marketplace last year, catering to its targeted low-end IBM user base.

- Brands serviced include IBM, Epson, Okidata, Compaq, Five-Star, Oasys, Convergent Technologies, HP, CIE, CMI, CTI, Beehive, MDS, Century, CDC, Fujitsu, Memorex, NEC, Pioneer, Priam, Printronix, Quantum, Qume, Qantel, Tandon, Ampex, Amdek, Archive, Okidata, Pertec, Princeton, Printek, Kennedy, Centronics, Diablo, Epson, Genicom, HP, Dataproducts, Hayes, and SCI.

Products maintained are:

- Minicomputers
- Telecommunications
- Superminicomputers
- Modems
- Microcomputers
- Multiplexers
- Peripherals

Services provided are:

- Manufacturer warranty
- Installation/relocation
- Remedial maintenance
- Fourth-party maintenance
- Preventive maintenance
- Conversion/upgrade
- Equipment sale/lease

Competitive Focus

Working in the crowded IBM micro products marketplace, Momentum stresses its personalized approach to lower-end support in differentiating itself from the competition. Focusing growth toward Fortune 1000 network accounts, Momentum attempts to provide more contract options and management attention than do most TPMs servicing this marketplace and constantly adds products to its menu to expand its single-source capabilities. Momentum offers four basic contract options to the low-end market, including a full Network Maintenance agreement, a "Support 100" option for large single-site PC installations, and uptime guarantees for users with critical applications.

Maintaining its strongest presence in the IBM market within the government, banking, insurance, and the distribution-related industries, Momentum considers IBM to be its toughest competitor. Within its own third-party realm, TPM leaders TRW, Sorbus, and Intelogic Trace are seen as most threatening in the race for marketshare. Planning expansion within the government sector and the financial marketplace, Momentum will no doubt be going head-to-head with TPM leaders Sorbus and TRW within their respective market strongholds.

Market Outlook

Momentum, now entering its second year in third-party maintenance, has traditionally followed IBM's lead in its attempts to survive in the competitive marketplace. Hit hard by IBM's recent discounting moves within the low-end market, Momentum admits that it refuses to "play second fiddle to a power like IBM," and its strategy leads it to undercut pricing in order to stay afloat, slashing its IBM PC support pricing by an additional 15 to 20% this year in reaction to IBM price reductions and the CSA discounting move, Momentum places itself in a vulnerable position as service margins continue to decline.

Faced with the reality of falling profits on traditional maintenance services, Momentum looks to service automation and increased business volume to combat losses. Moves like the recent Beehive purchase offer Momentum the ready increases in its customer base it will need to offset declining margins, and similar acquisitions may be necessary to boost Momentum business. In terms of increased support efficiency, Momentum's recent centralization of dispatch operations should provide significant savings once the system is in place.

Momentum's Deferred Response option and scheduled service program for large PC installations (the Support 100 plan) are also adding to the efficiency of Momentum's service delivery. Rather than providing the costly four-hour response that is standard for traditional Momentum contract customers, these options allow Momentum to better control its

support expenditures and spread the costs over a larger number of more predictable service calls. Gearing its future operations toward the distributed network marketplace, Momentum may well profit from such efficiencies applied to the network environment.

Strategic Perspectives

Momentum, moving aggressively from its PC-based support offerings into the 3270 marketplace over the past year, intends to further increase its higher-end capabilities, especially within the IBM System 3X market. Another marketplace already dominated by established third-party players, Momentum's entrance into the IBM mid-range arena will be met by serious competition from a number of top TPMs, as well as IBM's attempts to protect small system support revenues. With 20 years of experience as the support arm of mini manufacturer MDS/Qantel, however, Momentum approaches the market confident in its abilities.

Although only around 10% of its current business is derived from small systems support, Momentum recognizes the potential of small systems capabilities in the growing network support market and intends to concentrate on further developing its network expertise. Seeing networking as the "new wave of the industry," Momentum intends to continue to fill out its support menu to meet the needs of the network market.

NCR Third Party Services, CSD

9391 Washington Church Road
Miamisburg, OH 45342
(513) 439-8600

- Charles Exley, Jr., President
- \$17 million in TPM revenues, 1986
- 70% growth expected for 1987
- Active 4 years in the TPM market

Company Update

NCR Third Party Services emerged as a natural outgrowth of the worldwide resources of NCR's CSD (Customer Services Division). NCR Corporation had been actively servicing the business equipment market for nearly a century when it first ventured into third-party support in reaction to changing market forces and user demands. Initially entering the TPM market in 1983, NCR strategically adopted the service of "foreign" products to offset a number of drains on NCR-based support revenues, not the least of which were improvements being made to its own line of products. Hand in hand, the forces of increasing product reliability and decreasing hardware profit margins prompted NCR's entrance into TPM in efforts to recoup declining service income. With only four years experience directly competing in the TPM marketplace, NCR's Third Party Services division has already grown into a \$17 million enterprise and is expected to contribute nearly \$30 million to service revenues in 1987.

Maintenance Operations

With its broad installed base of NCR products, NCR can boast that it truly offers support in every corner of the free world through its network of corporate offices, agents, and affiliates. Third-Party Services (TPS) operations are headquartered in Miamisburg (OH), and, provided primarily within US boundaries, TPS is available throughout all 50 states. A worldwide pool of over 10,000 employees make up the entire Customer Services staff, and approximately 6000 of this group actually perform and/or manage field support activities. Within "TPS proper," 70 people are wholly dedicated to marketing and performing third-party services in conjunction with the broader pool of NCR engineering.

NCR formally announced the offering of depot-level repair services in late '86, including support for a variety of disk and board products, power supplies, and component assemblies. NCR reports that all of its 400 US offices have the capabilities to provide mail-in or carry-in services, but primarily utilize its main depot and inventory location in Peachtree, GA. Previously providing virtually all of its support on-site, business gener-

ated from the new depot agreement now makes up around 15% of TPS revenues.

Service Coverage

Originally focusing on lower-end product support, NCR has also recently expanded its offerings in the mid-range arena, through the addition of IBM System 36 maintenance and support of the entire Convergent Technologies minicomputer line. IBM Series I and the 3270 line have been supported by NCR for sometime, as well as many associated and compatible peripheral products. NCR's coverage in the micro market is very broad, with most all major PC manufacturers' products supported. Overall, equipment from over 100 different manufacturers is supported by NCR.

NCR admits that it currently restricts itself to these general categories of equipment, trying to focus its energies on an immediate "sets of products." While new products are constantly under review, NCR does not try to be "all things to all people," but rather attempts to perform well within its chosen product market. Over 90% of TPS business is delivered under contract within these product lines, with very little work done outside of its standard product or support menus.

- Brands supported include IBM, Compaq, Apple, Zenith, Convergent Technologies, ADDS, Amdek, Ampertif, AST, C.Itoh, Centronics, Cipher, CTS, Datamaxx, Dataproducts, Datasouth, Diablo, Epson, Genicom, Hayes, HP, NEC, Okidata, Princeton, QMS, Quadram, Racal-Milgo, Seagate, Tallgrass, Tecmar, Televideo, Texas Instruments, Toshiba, and Wyse.

Products maintained are:

- Mainframes
- Telecommunications
- Minicomputers
- LANs
- Superminicomputers
- Modems
- Microcomputers
- Multiplexer
- Peripherals
- Satellite earth stations
- Front-end processors

Services provided are:

- Manufacturer warranty
- Disaster recovery

- Remedial maintenance
- Installation/relocation
- Preventive maintenance
- Fourth-party maintenance
- ECO/FCO change orders
- Refurbishment
- Software maintenance
- Conversion/upgrade
- Consulting
- Training

Competitive Focus

Competing in the increasingly crowded IBM and compatible small systems market, NCR TPS stresses the strengths inherited from its NCR Customer Service Division parent operations. Backed by a worldwide network of experienced engineers and support people in over 400 locations across the US, NCR TPS can take full advantage of an expansive, established support delivery system that few "independent" third parties can afford.

NCR appreciates parts availability as the single most critical element of quality service delivery and utilizes CDS's computerized parts management systems to support its third-party customer needs in this area. On-line systems tied into CSDs network can track parts nationwide, and a main inventory located near the Atlanta airport can assure emergency parts deliveries within 24 hours. NCR sees its methods of local stocking, backed by central sourcing, distribution, and management as key to meeting its customers' increasing demands for reliable spares support.

Not surprisingly, NCR, as a manufacturer-based operation itself, feels its most serious competitive threats come from the manufacturers of its targeted product lines. In its approach to the service market, NCR TPS rejects a common tenant among third-party vendors as it focuses its efforts on a relatively limited set of products. NCR does offer a wide range of maintenance services. But, as opposed to the attempts of many TPMs to service anything and everything a potential user has configured, NCR offers these services only for equipment its is fully prepared to maintain.

Market Outlook

Integral to NCR's service philosophy is the concept of "total systems support," an attitude carried over from the larger systems vendor organization of NCR CSD. Within the product lines that TPS targets, NCR representatives "take ownership" of the total service responsibility associated with the system. With this slant to its service strategy, NCR feels little threat from the uprising of discounting and user-involvement plans

within the small and micro systems market. Although a "Shared Service" plan has been available to NCR equipment customers for some time, its TPS group has no plans to compete on this level in the third-party market.

Not looking to offload any of the tasks associated with systems service, NCR provides users with support at every level and a single point of contact for all system services needed, from installation to planning to problem resolution and account administration. NCR concentrates on "maximizing the customer's satisfaction by minimizing the customer's responsibility" in the on-going support process.

Strategic Perspective

With the broad range of resources available to TPS through NCR's Customer Service Division, NCR is well equipped to provide the levels of support it markets to users. Preferring to take advantage of the resources available through CSD, NCR has no plans to grow its third-party operations through acquisition. Rather, internal development of its current strengths and the sharpening of its quality standards will be the focus of TPS in the coming years.

Expansion in the area of small systems support is preparing NCR for a break into the networking market, a move kicked off by a network consulting service recently implemented within CSD. TPS is actively developing programs to utilize this knowledge-base within its third-party activities and plans to expand its capabilities within the telecomm arena as well.

As a leading vendor in the small systems marketplace, it can be expected that NCR's third-party division will continue to expand its coverage within the minicomputer marketplace. Its recent addition of depot support to its service menu will enable NCR TPS to more profitably serve the micro and peripheral marketplace and will provide network users an alternative form of service for their less critical PC and workstation products.

The theme underlying NCR TPS division's recognized strengths is deeply rooted in the symbiotic relationship it maintains with its manufacturer parent. Able to utilize the resources of a multi-billion dollar worldwide equipment vendor while still among the smaller of the top third-party rivals, NCR should be able to grow its TPM business into a significant contributor to its bottom line.

Pritronix, Incorporated

1341 West Mockingbird Lane
Suite 1100W
Dallas, TX 74247
(214) 630-9700

- James Price, President
- \$40 million in TPM revenues, 1986
- 20% growth expected for 1987
- Active 19 years in the TPM market

Company Update

Pritronix, Incorporated, from its roots as a modest Dallas-based operation backed by brothers Jim and Bo Price, emerged as a major contender in the TPM marketplace in 1987 after only five years in the service business. The ambitious team had sights set on attaining nationwide coverage before the corporation marked its eighth year in business, but managed to reach its goal well ahead of schedule with its acquisition of Carterfone Communications earlier this year.

Taking the industry by surprise, the young corporation took over all assets of the well-established Carterfone manufacturing and maintenance operations, more than tripling the size of its field engineering staff and nearly doubling its revenue base. Pritronix had been concentrating on internal growth, increasing coverage one city at a time, until the decision was made to expedite its expansion through acquisition.

After reviewing the fit of over fifteen contenders, the Carterfone purchase was consummated in May and added more than 60 locations to Pritronix's support operations. Carterfone's nationwide presence, experienced engineering team, and established revenue base provides significant compliment to Pritronix's strategic positioning.

Maintenance Operations

The newly augmented Pritronix operation comprises of over 400 employees, with Carterfone's adopted staff adding over 130 field engineers to Pritronix's previous staff of 40. Now in the process of converting the Carterfone locations to Pritronix Area Offices, the organization presently has 46 service centers nationwide, a substantial increase over the nine locations (Chicago, Los Angeles, Denver, Washington, and five in Texas) active before the merger. Gaining a presence in New York and the San Francisco Bay Area should provide significant competitive leverage for the growing corporation.

All of these currently operating service locations serve as sales offices, dispatch centers, and parts inventory and repair depot facilities, with all responsibilities overseen by the Area General Manager. Additionally, the Area Service Manager at each site works directly with customers, responding to users on-going support and application needs, as well as coordinating the field representative and support staff.

An additional position of Area Administrative Manager coordinates all contractual and financial aspects of customer interface as well as maintaining the site's training facilities and programs. Each location will have its own parts inventory, dispatch operation, training room, and demonstration facility in-house. At the national level, a Technical Support Specialist group is housed to provide back-up support and education to individual area offices.

Although all functional aspects of the business (parts coordination, dispatching control, administration and billing, etc.) are controlled at the national level, Pritronix's Area Office structure provides end users with the perception of a "local company" environment. Even national accounts are provided with the options to phoning into the headquarter's 800-dispatch line or going through the nearest office for assistance.

Service Coverage

Pritronix's support concept takes the adage of "one-stop-shopping" a few steps further, providing the low-end systems market with "cradle-to-grave" support. Providing assistance from the needs assessment stages through acquisition, installation, and maintenance of the system, Pritronix offers a comprehensive list of support services available for virtually any component below the cluster-controller level.

Shooting to "fill the spaces other service companies leave," Pritronix provides a number of levels of systems consulting and support services. The first level involves the Customer Account Manager in On-site Business Requirements support, providing on-going product evaluation, systems growth advice, and assistance with day-to-day operational issues. Customer Support Representatives step in to do physical installation and burn-in of the system as well as training users on software and hardware and providing for specialized report needs. Over 90% of Pritronix support is provided on-site and an equal amount under contract agreements.

At the second level, preventive support is provided by local Customer Service Representatives from problem determination stages through scheduled preventive maintenance and needed remedial support. System upgrade and integration planning is facilitated by periodic site evaluations to assure proper environmental and processing conditions. Backed up by local Area Office management as well as the Technical Support Specialist

Group at the national level, Pritronix approaches support on a much broader level than most third-party maintainers.

- Brands supported include IBM, DEC, and other major systems vendors and compatibles, as user needs dictate.

Products maintained are:

- Telecommunications
- Microcomputers
- LANs
- Multiplexers
- Peripherals
- Modems
- Front-end processors
- FAX

Services provided are:

- Manufacturer warranty
- Disaster recovery
- Remedial maintenance
- Installation/relocation
- Preventive maintenance
- Fourth-party maintenance
- ECO/FCO change orders
- Refurbishment
- Software maintenance
- Conversion/upgrade
- Consulting
- Equipment sale/lease
- Training
- File conversion

Competitive Focus

Pritronix, with its wide and varied support menu, positions itself “on the side of the customer,” touting its ability to advise and support the user with system productivity first in mind. As an independent service provider, Pritronix feels its strength lies in its ability to cross vendor lines in both consulting and system planning services, as well as in on-going system support; its focus lies on helping users gain productivity, outside of just one manufacturer’s qualifications.

The rise of systems integration and the growing force of networking within the market is feeding the Pritronix concept, which concentrates on the arena of customers whose requirements go beyond traditional third-party maintenance. Seeing the need (and associated expense) of in-house

support staffs dedicated to network coordination, Pritronix attempts to augment or even fulfill this need for users, from planning and requisition through logistics and support requirements. Packaging and expanding service offerings as the customer dictates, Pritronix sells itself as a "customer advocate" in the changing DP environment.

Pritronix's corporate goal is to become the "premier support organization for connectivity products," highlighting the company's focus on the growing area of network integration. Smaller systems and geographically dispersed network components are often neglected by manufacturers concerned with service of the CPU, and Pritronix plans to concentrate efforts on fulfilling the needs of this market. Working with users from the start, Pritronix helps customers build a viable network, maintain the system and components' productivity, and assist the user's staff in most all DP-related tasks involved in on-going network support.

Pritronix views its total support package as a unique offering in the third-party marketplace, seeing little direct competition from either manufacturers or other TPMs. Accusing manufacturers of putting hardware sales before user productivity in consulting and support efforts, and TPMs as being myopic in their offerings, Pritronix expects to make considerable impact on the TPM market in 1987. Efforts will be targeted on the 7500 or so Fortune 2000 corporations, penetration in that sector being greatly augmented by the purchase of Carterfone's customer base.

Market Outlook

Pritronix, focusing on the fast-growing small systems/network sectors of the market, is approaching the competition confidently. Little concern over the recent rash of discounting (e.g., IBM's CSA and Mid-Range Amendments) is expressed by president Jim Price, countering with the comparison of user involved repair service versus Pritronix full-support plan. Pritronix sells its services with a factor of "warmth" bundled in, blaming many service organizations for losing sight of this end-user need. Although many user organizations will have the sophistication and resources to take advantage of user-involvement discounting plans, Pritronix is banking on the fact that at least an equal amount will prefer (or demand) the "hand-holding" and "warm and fuzzy feeling" provided in its operations.

In the same vein, Pritronix admonishes manufacturers and some large TPMs for further removing the "human factor" from their support delivery. With increasing remote services and diagnostics support comes additional stress for users with less and less contact with an actual engineer. Price stands behind the increases in efficiency inherent in service automation, but strongly believes that users truly appreciate Pritronix's Area Office concept and the feeling that "someone is in charge." Avoiding the bureaucratic frustrations experienced with many centralized

national organizations, Pritronix compliments its flexibility in service offerings with its flexibility in support administration.

Strategic Perspective

Through its acquisition of Carterfone, Pritronix has instantly joined the ranks of the leading third-party maintenance contenders. From the \$20 million plus revenues earned from the nine locations of the original Pritronix organization, its projected growth to nearly fifty locations through 1987 is expected to gross over \$40 million. The degree of success the newly merged operations will have will be highly dependent on the acceptance of Carterfone customer base of the caliber of support offered by Pritronix. Although the two companies provide support to the same product users, their service menus differ in scope. Pritronix is currently in the process of instilling the company's full support concept into the Carterfone field force as well as the remaining administrative staff.

Pritronix relies heavily on satisfaction to carry the Pritronix name, staking reputation on customer references over advertising budgets. Equating growth in revenues with growth in customer satisfaction, efforts to bring the new Carterfone employees up to snuff will undoubtedly be Pritronix foremost task through 1988. In addition to gaining skills in the broad array of consulting service, software support, and additional product expertise, Carterfone staff will also be trained in the areas of disaster recovery and facilities management, two new Pritronix offerings to be announced within the next year.

Co-founder Price vows to keep his finger on the pulse of the growing operation, personally monitoring Pritronix's number one goal: customer satisfaction. Literally written into every Pritronix job description and of top consideration in personnel reviews, Price sets the high standard of 100% customer satisfaction above other business requirements. Reporting to read each customer satisfaction reply card (supplied post-paid to the user after every interface with Pritronix personnel) first thing each morning, Price reflects the company's serious commitment to quality support.

Servcom

1515 West 14th Street
Tempe, AZ 85281
(601) 894-7201

- Vincent Morelli, General Manager
- \$72 million in TPM revenues, 1986
- 18% growth expected for 1987
- Active 5 years in the TPM market
(previously ITT Servcom)

Company Update

Servcom, the third iteration of the original ITT Courier service operation, emerged as part of a new worldwide communications company, Alcatel NV, on January 1 of this year. Alcatel, formed as a joint venture between ITT and the French Compagnie General d'Electricite (CGE), combines the telecommunications operations of the two organizations and controls the third-party support operations of Servcom under its Business Systems group. ITT still retains a minority (37%) interest in Alcatel, leaving the control of its Servcom subsidiary in the hands of CGE.

After the acquisition move by Alcatel, Servcom expanded its service operations through the acquisition of the Executive Computer Maintenance Inc. (ECMI) field service operation in late August. Gaining the service customer base and all support related assets of ECMI, the purchase strengthened Servcom's position in the large-scale IBM third-party marketplace.

Maintenance Operations

With the adoption of ECMI's service force, Servcom now employs a dedicated third-party service staff of 770. Close to 60% of its workforce is classified as field engineers, a total now growing to over 450, backed by over 150 field support people. The remaining 150 plus are evenly split between management and administrative functions in Servcom's 160 locations.

Field operations are organized into three regional divisions headquartered in Tempe (AZ) and comprise 160 individual service locations in eight districts. Apportioned by customer concentration, the boundaries of these eight districts are reviewed annually, and boundaries adjusted accordingly to better balance the number of field engineers assigned to a given district. Within these 10 districts, 20 mail-in/carry-in repair centers are maintained and parts are stocked at all depot and field office locations. Servcom maintains primary parts depots in Phoenix (AZ) and Toronto to serve its nationwide and Canadian customer-base.

Both depot and on-site support are controlled through Servcom's centralized COMSAC (COMMunications Support Activity Center), with users making contact with Servcom operators for either dispatch confirmation or depot delivery instructions. The majority (87%) of Servcom support is delivered on-site, a percentage which may see an upturn with Servcom's increasing involvement in large system support.

Service Coverage

Servcom offers service on over 500 products, ranging from large mainframes to PC systems and peripherals. New to Servcom's product menu this year are Wang and Datapoint systems, as well as a number of PC and peripheral products.

Complementing its range of hardware and software offerings are a variety of consulting and training options, as well as the availability of a full remanufacturing facility able to repair and refurbish a variety of Servcom-covered products. Even though this broad array of services provides Servcom with a visible differential advantage needed in today's competitive market, the vast majority of its business (88%) is derived from more "traditional" contracted services.

- Brands supported include Alcatel, Amdek, AMS, Anadex, AST, Brother, CDC, C.Itoh, CIE, CMI, Corvus, Data South, Datapoint, Davong, Decision Data, Diablo, Epson, Hayes, Herculese, HP, IBM, Irma, ITT, NEC, NSI, Okidata, Quadram, Texas Instruments, STC, Wang, Zenith, Alloy, Apple, Centronics, Compaq, Data Products, DEC, Emerald, Fujitsu, Genicom, Hazeltine, IOmega, Lear Siegler, Memorex, Novell, Paradyne, Primage, Printronix, Racal-Vadic, Rixon, Sanyo, Sony, Sysgen, Tally, Tallgrass, Tandem, Tandy, Taxtan, Tecmar, Televideo, Telex, Toshiba, Xerox, and Ziyad.

Products maintained are:

- Mainframes
- Telecommunications
- Minicomputers
- LANs
- Superminicomputers
- Modems
- Microcomputers
- Peripherals

Services provided are:

- Manufacturer warranty
- Remedial maintenance
- Installation/relocation

- Preventive maintenance
- Fourth-party maintenance
- ECO/FCO change orders
- Refurbishment
- Software maintenance
- Conversion/upgrade
- Consulting
- Training

Competitive Focus

Coming from a background of heavy datacommunications and interactive processing support in its earlier ITT days, Servcom views its experience in the on-line processing sector as unique among its TPM competition. Claiming that most third-party vendors' strengths lie in the "standalone" peripherals realm, Servcom stresses its focus on interactive systems support, and the broad line of systems and vendors serviced. Servcom, currently servicing over 500 different product types, points to the advantage such a wide product menu provides to information systems network users looking for a "complete solution" to support problems.

Specializing in the support of such large network users, Servcom's National Accounts program offers the support and monitoring assistance needed to properly control the costs of major accounts. Servcom offers customized support plans as well as a variety of management reports on system component performance and on Servcom's own support performance under contract. Such monitoring can be done by location, by component, by product type, or by a combination of factors as best suits the customer's need, providing national account managers a significant amount of control over system performance.

Considering its main competition as coming from Sorbus and TRW on the TPM side and increasingly from the side of equipment manufacturers, Servcom is concentrating efforts on enhancing its network support abilities to better compete in the marketplace. Stressing its flexibility in terms of price and product coverage and from a contractual viewpoint, Servcom feels that the financial stability of its parent provides the ability to invest needed capital in the training and inventory required to provide customers with new services.

Market Outlook

Faced with increasing competition from other TPM's breaking into the network support marketplace, as well as pressure from equipment vendors attempting to regain support revenue control, Servcom looks beyond head-to-head confrontations in its competitive strategies. Although admittedly threatened by phenomena such as IBM's Corporate Service

Amendment or the rash of extended warranties affecting the TPM market, Servcom attempts to forecast and circumvent such competitive trends.

Concentrating more on value-added services which will provide a recoup on losses inevitable in a highly competitive marketplace, Servcom plans to step up software services, provide a supply network aimed at the self-maintenance market, and extend its fourth-party capabilities to serve the end-user market. At the same time recognizing the necessity of direct competition in the imposed "CSA arena," Servcom does admit plans to offer its own response to the amendment. But beyond the immediate battles waging in TPM marketplace, Servcom looks to its alternative value-added offerings to help it win the competitive war.

Strategic Perspective

The resources gained through the acquisition of Bell & Howell service company last year and the small, but well established operations of ECMI this year prove Servcom to be an aggressive force working amid the top third-party competition. Admittedly active in the search for additional acquisitions, Servcom appears very serious about its growth potential, readily proclaiming its plan to soon be a \$100 million operation.

Servcom's new affiliation with a foreign-based communications firm will undoubtedly reinforce its focus on the systems network marketplace. Touting its strengths in the inter-active systems marketplace, Servcom has considerable experience in the servicing of network products and can be expected to expand its capabilities in this as market interest in networked systems grows. Along these lines lies Servcom's expansion in the small systems market this year, with the addition of Wang and Datapoint minicomputer product support.

Along related lines, Servcom revealed plans to become more active in the PBX area and in telecomm support in general in the future. Servcom's expansion in the large systems marketplace this year adds yet another aspect to its network thrust. With its recent aggressiveness shown in support provision, service marketing, and acquisition intentions, Servcom can be expected to remain a strong force among the top contenders in the third-party marketplace.

Sorbus

50 East Swedesford Road
Frazer, PA 19355
(215) 296-6000

- Thomas A. Vassiliades, President
- \$240 million in TPM revenues, 1986 (INPUT estimate)
- Active 22 years in the TPM market

Company Update

Sorbus, a long time leader within the third-party maintenance market, continues to hold strong in the race for the TPM frontrunner position. Long known for its aggressive acquisition strategies, Sorbus' purchase by the multi-billion dollar Bell Atlantic Corporation has strengthened its financial position and accelerated its activities in the acquisition area. Three major purchases were made within the year, expanding Sorbus' resource base, geographic coverage, and product line.

The first purchase was made in January of 1987, bringing Wisconsin-based Electronic Service Specialists, Ltd. (ESS) into the Sorbus fold. The acquisition, consummated just over six months after Sorbus' purchase of the DEC-based Braegen Field Service operation, further confirmed market speculation on Sorbus' intent to enter the DEC arena. ESS, an \$18 million operation, specialized in the repair and sale of DEC systems, components, and peripherals and well prepares Sorbus for competition in the PDP and VAX market, which Sorbus officially entered late this year.

A second move made in June added the Amdahl name to Sorbus' product menu, with the purchase of the largest independent servicer of the Amdahl line. Pacific Computer Corporation (PCC), a \$4 million Silicon Valley operation, was immediately integrated into the Sorbus organization, adding a staff of 21 Amdahl-trained engineers. Nine service locations were added with the purchase, and PCC's expertise in mainframe support served to broaden Sorbus' capabilities at the high-end.

In line with its traditional focus on the government sector, Sorbus most recently acquired the Jolynne Service Corporation, based in Rockville, MD. With the revamp of Sorbus' management structure following the Bell Atlantic takeover, a new position was added to increase sales in the "federal and special markets" sector. Edward Drohan (former Vice President of marketing and planning) was appointed to oversee the effort, and at the time of the acquisition, Jolynne president Robert Tupper was made executive director of federal division activities.

Already heavily active in the federal market, the Jolynne acquisition added a field force of 72 technicians to Sorbus' ranks, as well as accounts with the likes of the Social Security Administration, the Department of Defense and Department of Energy, and the Executive Office of the President.

Maintenance Operations

Reflecting the considerable growth of its support operations, Sorbus recently broke ground on a new facilities expansion program which will double the size of Sorbus' current headquarters complex. The new 250,000 square-foot facility will house Sorbus' corporate administrative offices as well as its training centers and an upgraded central computer system. Currently, the Frazer, PA headquarters coordinates the activities of Sorbus' 200 nationwide offices and houses over 300 of its 2800 person staff. Sorbus employs over 1600 field engineers across the US.

Although the majority of Sorbus' support is provided to users on-site, Sorbus also provides depot services out of 18 computer repair centers nationwide. Parts support is provided through a centralized inventory management system, which tracks spares from the local office down to the level of the technician's van. And in support of Sorbus operations and end-user needs as well, two repair and refurbishment centers are maintained on either coast of the US. Overall, the array of services offered by Sorbus are available across the 48 continental states and the Hawaiian islands.

Service Coverage

Sorbus has traditionally concentrated its support offerings in the IBM and compatible marketplace, but provides a single source of service for a variety of mainframes and microcomputers alike. System contract work is by far the major source of business for Sorbus, and, dollar-wise, revenue contributions from large systems service is most significant. A number of programs aimed at lower-end products are, however, very popular among PC users, offering on-site and depot support, as well as mail-in/carry-in or pick-up and delivery arrangements.

Sorbus prides itself in the quality of service it provides over its wide variety of available support options. Covering users needs from the consulting and installation phase through ongoing support and upgrade stages, Sorbus can offer support to over 3000 makes and models of equipment. Even beyond traditional service lines, Sorbus is hinting at expanding system coverage to eventually include disaster recovery support.

- Brands supported include ADDS, Amdek, Ampex, AST, BMC, C.Itoh, Centronics, Century Data, Colby, Compaq, Computer Memories, CDC,

Dataproducts, Datasouth, Davong, DCA, Diablo, Epson, Forte, Hayes, Hazeltine, Hercules, HP, IBM, IOMega, Kaypro, Lear Siegler, Liberty, Basic Four, Mannesman Tally, Maynard, Miniscribe, Mountain, NBI, NEC, Northstar, Okidata, Orchid, Persyst, Plantronix, Primage, Princeton, Qantex, Quadram, Qume, Racal Vadic, Rixon, Seagate, Seattle Computer, Shugart, Soroc, Tallgrass, Tandon, TEAC, Tecmar, Televideo, Texas Instruments, Toshiba, Ven-tel, Visual, Xidex, and Zenith.

Products maintained are:

- Mainframes
- Telecommunications
- Minicomputers
- PBX
- Superminicomputers
- Microcomputers
- Peripherals

Services provided are:

- Manufacturer warranty
- Remedial maintenance
- Installation/relocation
- Preventive maintenance
- Fourth-party maintenance
- ECO/FCO change orders
- Refurbishment
- Consulting
- Conversion/upgrade

Competitive Focus

As a leader in the third-party marketplace, Sorbus attributes a great deal of its success to its ability to efficiently and effectively control its support operations, gained through its nearly 25 years in the maintenance business. Its centralized Inventory Management System tracks over six million individual parts stocked in over 3000 field offices, customer locations, and Sorbus vans and is closely tied to its computerized Dispatch Data Gathering system. The entire system allows Sorbus dispatch operators to access 90-day service records on the trouble site, locate the appropriate engineer and needed parts in the field, and set call priority on-line.

Its history as a third-party maintainer also contributes to the high level of expertise Sorbus claims of its field engineering staff, who receives on-going training in equipment service as well as customer support. Providing service on the 3000-plus products covered by Sorbus, field engineers

are run through a constant cycle of training and retraining on the newest technologies through Sorbus' in-house training facilities.

Also seen as a significant advantage of Sorbus support are its two repair and refurbishment centers, both equipped with Class 100 clean rooms and full board and component repair facilities. Able to serve its core end-user market, as well as a variety of resellers, OEMs, and other third-party vendors, Sorbus' R&R facilities provide an advantage in terms of its revenue generation as well as its service coverage.

Market Outlook

Secure in a leadership position in the IBM marketplace, Sorbus reports little concern over the recent aggressive moves made by Big Blue in the service arena. Seeing itself as IBM's biggest competitor, efforts like IBM's increased warranty offerings and new service discount amendments are not viewed as major threats, Sorbus defending its price/performance record in the market.

After a number of competing TPM's reacted to IBM's CSA, however, Sorbus likewise introduced a multi-year plan paralleling the amendment and kicked off the introduction with a three-month money-back challenge aimed at the 4300 line. Preferring to offer the market a full support option, Sorbus' Multi-Year plan requires no customer intervention as qualification for the discount and stresses its commitment to enhanced support in the IBM market.

Sorbus' coincidental venture into the high-end DEC marketplace will provide some relief from any backlash experienced in the IBM market. Rounding out its product menu, the official move into DEC service greatly expands Sorbus' potential customer base, especially in light of the push DEC is making for its networked minicomputer products. With the increase in third-party software support on these same DEC units, it can be expected that Sorbus will likewise look into the software side of this expanding market.

Strategic Perspective

It is apparent that Sorbus' new Bell Atlantic parent is serious about the growth of its star subsidiary, having already invested considerably in external acquisitions as well internal spending aimed at strengthening Sorbus' competitive position. Now part of one of the largest Bell operating companies, Sorbus is backed by a resource base matched by very few third-party competitors.

The Sorbus operation itself holds a strong position financially with its revenue sources spread between the government and commercial sectors and between maintenance and maintenance supplies. While remaining

extremely active in TPM as a maintenance vendor, Sorbus' growing repair and refurbishment operations allow it to cash in on the success of other suppliers of service, both third-party and manufacturer-related. Sorbus' part sales and refurbishment activities will continue to be a significant source of revenues, as well as an important cost-saving operation internally.

In terms of support menu, Sorbus' new relationship with Bell Atlantic will undoubtedly encourage its growth in the telecommunications market. Well aware of the opportunities opening up in the service sector as voice and data communications technologies become more closely merged, Sorbus is expected to step up efforts in the network area. Its recent venture into the DEC marketplace will open a new sector of this fast growing market and serve to further broaden Sorbus' competitive reach.

TRW Customer Services Division

15 Law Drive
PO Box 2078
Fairfield, NJ 07007
(201) 575-7110

- Paul H. Snyder, Vice President and General Manager, CSD
- \$250 million in TPM revenues, 1986 (INPUT estimate)
- Active 11 years in the TPM market

Company Update

Few things have remained constant within the dynamic third-party marketplace, with the exception of TRW's position as the dominant TPM player. Now leading the pack with an estimated \$250 million in third-party revenues, TRW Customer Service Division (CSD) continues to defend its number one position, but is facing increasing competition from a number of up-and-coming third-party contenders. Following aggressive acquisition strategies (not unlike the one which helped TRW gain market prominence), top TPM rivals like Sorbus are gaining ground on the long-time market leader.

Vowing to keep TRW in the front of the third-party race, new Customer Service Vice President and General Manager Paul Snyder is focusing on both internal and external growth strategies for TRW. Still actively pursuing growth through acquisition, the purchase of United Equipment Incorporated was completed this year, strengthening the operations of CSD's medical electronics division. Additionally, a new post was created internally to control the on-going relationships TRW holds as the authorized servicer of over 60 manufacturers' lines.

Reappointed to the new "strategic alliance" position, previous director of TRW's national service operations Richard Morris will be faced with the responsibility of retaining TRW control of the many manufacturer-service contracts now up for renewal. With competition heating up for the secure OEM accounts, TRW's stronghold as an authorized service contractor will depend greatly on the success of Morris in his new position. Under the leadership of newly appointed Snyder, TRW appears determined to defend its third-party turf.

Maintenance Operations

Moving into its second decade as a third-party maintainer, TRW has accumulated a staff estimated at over 3000, including a field force exceeding 2600 bag-carrying engineers. Third-party support is delivered from more than 150 service locations nationwide, covering the 48 continental states and Hawaii. Depot services are available through 45 pri-

mary repair facilities, all stocked locally and fed from TRW's three regional parts distribution centers. These regional locations serve as national warehousing/refurbishment centers, serving TRW's fourth-party user base as well as TRW's own internal parts needs.

TRW services are predominantly delivered on-site, and TRW prides itself in the on-going training its field staff receives. Traditional in-house classroom facilities are maintained, as well as an evolving series of audio/visual training courses aimed at keeping field engineers and technicians up to speed on new product introductions. TRW places staff training as an important priority among its on-going maintenance operations.

Service Coverage

TRW offers service on over 1400 different products, ranging from mainframe systems to PC peripherals and telecommunications equipment. Originally active predominantly in the IBM marketplace, TRW has accelerated its efforts in the DEC arena over the past few years, now offering high-level DEC systems support as well as its own in-house developed diagnostics packages aimed at other TPMs and self-maintaining DEC users.

TRW maintains a number of on-going relationships with manufacturers, serving as a service agent during warranty and beyond. An integral part of TRW's service strategy, warranty work of this kind allows TRW to get its foot in the door before many TPMs have even considered bidding on support of such new products. Post-warranty endorsement by non-supporting manufacturers also contributes to TRW's visibility in the marketplace.

- Brands supported include ADDS, AES, Altos, AMF, Ampex, Anadex, BDS, BDT, Commodore, Compaq, Copystatics, Comemco, CTI, Dataproducts, Datasouth, Data Systems, DEC, Docutel/Ollivetti, Emulex, Epson, Esprit, Fujitsu, Gulfstream, IBM, IOmega, Lanier, Lear-Siegler, Mosler, Multitech, NEC, Okidata, Pitney-Bowes/Alpex, Princeton, Printer Systems, QMS, Rexon, Royal, Rutishauser, Singer, Televideo, Texas Instruments, US Design, Vector Graphics, Verilink, Wiltek, and Wyse.

Products maintained are:

- Mainframes
- Telecommunications
- Minicomputers
- LANs
- Superminicomputers
- PBX

- Microcomputers
- Modems
- Peripherals

Services provided are:

- Manufacturer warranty
- Installation/relocation
- Remedial maintenance
- Fourth-party maintenance
- Preventive maintenance
- Refurbishment
- ECO/FCO change orders
- Conversion/upgrade
- Training
- Equipment sale/lease

Competitive Focus

In the market leader position, TRW experiences competitive threats from all factions of the market, ranging from large national TPMs and manufacturers down to local third-parties and system dealers vying for a piece of its market share. Sorbus, CDC, and Intelogic Trace are seen as most immediate threats to TRW's position, each quickly gaining prominence within the IBM and DEC support marketplace. Focusing on its experience as the top national third-party vendor, TRW depends on its broad product coverage and support menu to keep its ahead of the pack.

TRW's relationships with manufacturers vary widely, many equipment vendors giving TRW endorsement to support its products, while others compete directly for the contract business. TRW's two main OEMs, namely IBM and DEC, are the strongest among this second category, and TRW readily recognizes the threat posed by their efforts to recant third-party marketshare.

The sheer number of local third-party players and resellers attempting to make way into TRW's territory is also seen as a considerable threat to TRW market expansion. The strength of a large national player like TRW, however, provides the advantage of focused competition, and plans such as TRW's "On-Target" program allow TRW to use such potential competitors to its own advantage. Providing TRW's nationwide service capabilities, as well as commissioned sales and marketing programs to assist resellers in the sale, the On-Target plan effectively opens up VAR, distributor, and dealer channels to TRW while heading off competition in these areas.

TRW is also known for its focused competition within certain vertical markets and is strengthening its presence in selected industry sectors. As

opposed to the "shotgun" approach taken by many third-party contenders, TRW prefers to concentrate its efforts in high-growth areas such as banking, small business, and government sectors. Especially active within the medical market, many of TRW's recent acquisitions have been made to augment its growing medical electronics service business.

Market Outlook

Although its success in the third-party marketplace spotlights TRW among TPM rivals, TRW appears unshaken by accelerating competition within both manufacturer and third-party sectors. Still retaining its title as the top third-party player, TRW will continue to pursue its aggressive acquisition and growth strategies within its designated markets and concentrate its efforts in the growing retail and financial industries. Medical electronics will also remain a prime target for growth, with TRW leading the market in this promising vertical industry.

TRW, well aware of the increasing competition from the manufacturer side, tends to view recent moves made by equipment vendors as more of an opportunity than a threat. Increases in product reliability and extended warranty coverage, although keeping support revenues out of TPMs' reach in the early stages of the product life cycle, still allow TRW room for inventive alternatives. TRW sees its future growth focusing on a wider array of services, well beyond the scope of traditional hardware maintenance, allowing it to regain revenues lost to manufacturer organizations.

Perceiving a third-party's "entry point" as well into to a product's continuing life cycle, TRW remains indifferent towards the increased warranties being introduced in the market, with TRW's main OEMs IBM and DEC leading the way. More directly, TRW has had to compete with IBM's recent discounting move, signalled by the introduction of the CSA and Mid-Range amendments. TRW was among the first to retaliate against IBM's plans, offering greater discounts for less customer involvement. Despite its ready response, TRW still aims to provide full service alternatives to users and feels its customer base prefers a high level of support over lower prices.

In line with its full service dedication, TRW admits that extended services such as software and network support capabilities are a necessary ingredient for success in today's support environment. Although TRW doesn't currently market such service plans, it has full intentions to build its capabilities in the network arena and continue to provide limited software support where it can be managed efficiently.

Strategic Perspective

TRW takes a very calculated approach to third-party competition. Evidenced by its careful and consistent moves within its designated markets, TRW has a very clear vision of its competitive strengths and constantly works to reinforce and improve them. TRW readily admits its dependence on extensive market research to guide its competitive development and, equally important, is prepared to invest in the technical development necessary to support its competitive goals.

The new blood in TRW's top management appears dedicated to following the carefully mapped path forged by its predecessors, and the ambitious Snyder in his new General Manager position reports hopes to double TRW CSD's revenue over the next three years. CSD's past performance as a profit center has placed it well within the good graces of its multi-billion dollar parent corporation, and the financing needed to accomplish these optimistic goals may well be within its reach.

Technical Support Services, Inc.

81 Croton Avenue
Ossining, NY 10562
(914) 762-5910

- Thomas McLaughlin, President
- \$14 million in TPM revenues, 1986
- 23% growth expected for 1987
- Active 9 years in the TPM market

Company Update

Ready to mark its tenth year in business, Technical Support Services, Inc. (TSSI) is quickly gaining prominence as a source of third-party support. Starting out in 1978 with a small mail-in depot operation, its specialized user base soon led TSSI to provide a more comprehensive service offering, and the company's customer-guided expansion has recently placed TSSI among the rising stars in the TPM industry.

Approaching the crowded third-party marketplace with its eye trained on the growing needs of the financial community, TSSI has carefully filled out its service menu to meet its customers' critical on-line information processing requirements. Now able to provide the financial marketplace with a full line of maintenance services as well as equipment and supplies sales and fourth-party support, TSSI has grown to a \$14 million company and claims the leading position in the IBM banking equipment service market.

Maintenance Operations

TSSI is rapidly expanding its coverage, now providing its services out of a total of 24 service locations. Primarily active on the East Coast, Northcentral, and Western US, each TSSI support office acts as an equipment repair and refurbishment depot, as well as a training facility and technical support center. TSSI now employs a total support staff of over 270, with its core field and depot technicians comprising nearly half of that total.

Providing a unique approach to on-site service coverage, TSSI technicians avoid lengthy repair times by arriving on the scene with an operating spare, and, once this unit is installed and working, the field engineer returns to the local office with the defective part. The actual repair and maintenance of the problem machine is then carried out in a more controlled and better equipped environment, thus avoiding putting the technician under the pressure of an on-site emergency situation.

Able to access all resources available at each TSSI office, the repair can be facilitated in a controlled environment while the user's downtime is kept to a minimum. In the fast-paced banking environment, TSSI's technique provides the customer with the timely service demanded while allowing TSSI the time to thoroughly test and repair problems encountered as well as perform preventive routines to avoid future problems.

Service Coverage

TSSI positions itself as the leading third-party provider of banking network maintenance and concentrates its offerings within the IBM marketplace. Also offering support for a number of other leading vendors in the financial market, TSSI's product menu covers mostly low-end network components, such as terminals, ATMs, micro systems, and peripherals.

TSSI support is provided almost exclusively under contract arrangement, although hourly per-call services are made available to customers. Only about 2% of TSSI's total service business is derived from time and materials work. Focusing its offerings on the needs of its established target segment, TSSI concentrates efforts on providing high quality, comprehensive contract support at an attractive competitive price.

Brands serviced include IBM, NCR, Diebold, ISC, and Telex.

Products maintained are:

- Microcomputers
- Telecommunications
- Peripherals
- Modems
- Front-end processors

Services provided are:

- Manufacturer warranty
- Installation/relocation
- Remedial maintenance
- Fourth-party maintenance
- Preventive maintenance
- Refurbishment
- ECO/FCO change orders
- Conversion/upgrade
- Equipment sale/lease

Competitive Focus

Very focused in its competitive approach, TSSI prides itself in the solid reputation earned over the years it has served the banking and financial

marketplace. Concentrating on developing a comprehensive support menu aimed at a very narrow market segment, TSSI's success in the TPM market lends a testimonial to the "niche approach" to service marketing. The changing scope of user needs has recently prompted a number of third-party leaders to look into narrowing their target market, an approach TSSI has practiced since its inception.

TSSI stresses its commitment to total customer support, and from its beginnings as a small depot operation has expanded its offerings to cover a wide range of needs within the on-line data processing market. Beyond traditional installation, maintenance, repair, and reconditioning services, TSSI has recently added a full line of "Equipment Management Services" to supply users with a clearinghouse for used equipment. Able to arrange the purchase, sale, leasing or rental terms for the used banking equipment market, TSSI takes on full responsibility for the refurbishment, testing, shipping, and delivery insurance arrangements for users. Although the new service does not yet contribute significantly to TSSI's bottom line, the wide range of services offered reinforces TSSI's "full service" image and helps maintain account control.

Market Outlook

Although TSSI has recently stepped into the supplies and secondary equipment sale markets, it continues to stress that maintenance is its "bread and butter business." Having always concentrated on support of branch automation equipment, its experience in the banking network environment places it in a strong competitive position within the evolving third-party marketplace. Although the lucrative financial sector may prove attractive to TPM competitors, few have the concentrated resource and knowledge base TSSI has built within the marketplace over its 10 years of service.

The wide range of services offered to its users differentiates TSSI from its competition in the banking marketplace, but outside of traditional service areas admittedly provide very little revenue contribution overall. Although its extended offerings can be expected to become more profitable as they grow, TSSI intends to continue to focus on its network maintenance business in the future. Recently extending its internal remanufacturing capabilities to the end-user market, TSSI has tapped the self-maintenance market and has prepared itself to profit from other third-parties entering the banking environment.

Strategic Perspectives

TSSI has established a strong presence in the third-party marketplace through its selective strategic approach. Having avoided venturing into the attractive markets now glutted by TPM competition, TSSI has maintained a disciplined pattern of growth, and its strategy has paid off.

Expecting revenues near \$17 million this year, TSSI has joined the ranks of the leading third-party contenders.

Well-established in its niche, TSSI can be expected to continue to stand out among the competition in the financial marketplace. At the same time, however, TSSI's success in its sector makes it an attractive acquisition candidate, TSSI admitting that it has been recently courted by a number of potential buyers. TSSI's expanding operations and growing profitability have, however, provided the strength to keep TSSI an independent contender in the market, as well as the capital to consider acquisitions of its own. TSSI, quickly gaining prominence in the third-party marketplace, will be a company to watch over the next fiscal year.

Total Technical Services

6145-D Northbelt Parkway
Norcross, GA 30071
(404) 662-8887

- George Stackfletch, President
- \$21.5 million in TPM revenues, 1986
- 32% growth expected for 1987
- Active 9 years in the TPM market

Company Update

Total Technical Services (TTS), serving as a broker of IBM support, has enjoyed stable growth in a relatively unhostile environment since its inception in 1978. Although TTS's services have always represented a form of competition for direct IBM-contracted support, the basis of a broker's business inherently provides less of a threat to IBM revenues than that of traditional third-party vendors. Contracting with end users but utilizing IBM staff to deliver support, brokerage houses like TTS actually provide IBM with a revenue flow while they compete, through the time and materials fees paid to utilize IBM's engineering pool.

IBM's recent changes in its longstanding support strategy have, however, obviously taken their greatest toll on IBM-based third-party businesses, including TTS. Faced now with a major competitor aggressively resisting encroachment on its service revenues, TTS is placed in a new environment where competition on the basis of price is suddenly less of a factor. In response, TTS is gearing up to publicize and market its broad line of capabilities, over and above continued price advantages, to IBM users in the market.

Of greatest affect was IBM's November announcement which effectively cut back the availability of its time and materials resources during non-prime hours. Under increasing pressure from IBM's recent competitive moves, TTS plans a major overhaul of its service brokerage philosophy and intends to concentrate efforts on beefing up its own field force and operations over the next few years to allow it less dependence on its prime competitor's resources.

Maintenance Operations

Due to the brokering basis of its operations, TTS is staffed with a relatively small field force, with its entire staff nearly equally split between administrative and support positions. Current staff numbers 79, with 37 involved in management, 37 field engineers, and five dedicated to field support. Operations are based in Atlanta; a main parts inventory at the headquarters serves the remaining eight field service locations, as well as

the depot facilities within four of those offices. TTS plans expansion of its depot capabilities with the opening of five additional repair stations proposed for the near future.

Through TTS's utilization of IBM's vast field staff, its brokered services are offered nationwide. Locations in Georgia, Ohio, Wisconsin, Minnesota, Kansas, Colorado, Florida, California, and New York provide sales and service support, and additional sales office is soon slated to open in Jackson, Mississippi. The forecasted depot facilities will adjoin current field offices in the Midwest and California, as well as expand TTS territory into Texas.

Approximately 10% of TTS business currently comes from depot repair, and this significant addition to repair facilities should be a boon to revenues. Reporting 95% of revenues as derived from on-site support in 1986, TTS business-base appears to be shifting slightly toward this more economical depot repair business.

Service Coverage

TTS support is based primarily on the high end of the IBM line and includes ATM and POS units as well as software design and support. A full line of configuration management and maintenance services are provided to support users through their capacity planning, installation, conversion, refurbishment, and on-going service needs. Consulting, facilities and account management, and disaster back-up services round out TTS's full service capabilities.

Aimed at the self-maintaining end-user market are another set of services, ranging from intensive engineer training to warehousing and depot parts services, in contrast to the array of services provided for users requiring complete system support. TTS's specialized facilities (including four controlled storage facilities with a combined capacity of 42,000 square feet and a string of "Total Technical Institute" training centers) round out TTS's market offering and spread its competitive market interest.

- Brands supported include IBM and compatible brands (STC, Memorex, Decision Data, Okidata, CDC, Intel, and Datapoint).

Products maintained are:

- Mainframes
- Minicomputers
- Superminicomputers
- Microcomputers
- Peripherals

Services provided are:

- Remedial maintenance
- Installation/relocation
- Preventive maintenance
- Fourth-party maintenance
- ECO/FCO change orders
- Refurbishment
- Software maintenance
- Conversion/upgrade
- Consulting
- Equipment sale/lease
- Training

Competitive Focus

TTS's differential advantage lies between its ability to provide more reliable and personal response than its manufacturer competition and its degree of flexibility (in terms of breadth of product line and services offered) provided over other third-party contenders. TTS intends to make a concerted effort to increase market awareness of its full range of services, which will become an increasingly important competitive tool as the contention heats up in the IBM TPM marketplace.

Until this year, TTS was without a dedicated sales force and depended wholly on local management efforts to increase TTS's market share. A new attitude toward marketing efforts has been adopted in 1987, however, and TTS is focusing efforts on sales at all of its branch offices. A full-time salesperson was assigned to each field office over the past year, and an additional staff of four telemarketers has been added to TTS's staff roster.

Market Outlook

As an IBM support-based business, the recent moves by IBM to protect service revenues have obviously made some threat to TTS's competitive standing. Although 75% of TTS revenues come from support of the "big-ticket" IBM mainframe items, TTS has felt some effect on revenues from the CSA and Mid-Range Amendment backlash. Seeing most notable impact in its New Jersey/New York territories (where it claims IBM is most aggressively pushing the discounts), contract sales in most of the US are remaining relatively stable, with TTS attempting to match or better the discount offerings when bidding against IBM. The accompanying IBM announcements of extended 24-hour/7-day coverage for certain users has also effectively cut into TTS's own time and materials revenues as it eliminated the need from per-call assistance during those extended hours.

TTS has also seen encroachment from other third-parties in these same areas as well as in the software support arena, which increasing numbers of third parties are entering. TTS is currently gearing up to offer increased levels of software support on the basis of customer need, although they are not yet aggressively marketing a packaged offering.

The same situation holds in fourth-party support; although they provide the service, it is not a major revenue draw. Rather, less commonly offered services such as these can act as "bait" in an increasingly crowded market. Basically, TTS admits that with its wide capacities, it will offer a user account "anything and everything" within its realm, and with a foot in the door, then works to take over control of more profitable installation and maintenance-type activities.

Strategic Perspective

TTS intends to stay focused in the high end of IBM's line, where fewer third-party vendors crowd the market. At the same time, TTS's claim to total flexibility in its support services denies it the right to turn down smaller systems support, even though it admittedly operates at greater cost efficiency at the high end; TTS concedes that its ability to pass on cost savings to users becomes less at the lower-end of the product line.

In search of new pools of large systems users, TTS plans to explore the government sector, a market not previously approached by TTS. Within this strategy, TTS plans to open a service office in the DC area and dedicate a salesperson to that market. With its array of training and logistics service offerings, TTS support appears well suited to many of the the self-maintenance needs imposed by the high-security nature of many government installations.

With the help of the new sales hires, a great deal of sales responsibility is lifted from the shoulders of local management, and TTS's planned expansion in terms of locations and market share seems much more workable. Still optimistic with an expected growth of 32% in 1987, TTS appears ready to stand up to the accelerating competition in the IBM marketplace.

Unisys Customcare

PO Box 500
Blue Bell, PA 19424
(215) 542-4011

- Markus Monk, Director
- \$42 million in TPM revenues, 1986
- 55% growth expected for 1987
- Active 2 years in the TPM market
(previously Sperry Customcare/Burroughs Corporation)

Company Update

Soon to mark its second year in the TPM business, Unisys' third-party group has become a significant contributor to corporate Customer Service revenues in the short time it's been in operation. Adding a reported \$42 million to total customer service revenues topping \$2 billion worldwide, Unisys' TPM division is quickly becoming a major force in the third-party marketplace.

The Burroughs buy-out of Sperry Corporation in late 1986 introduced third-party business into the new Unisys Corporation. The "Sperry Customcare" division became "Unisys Customcare" and, backed by the combined resources of two leading mainframe manufacturers, continues to grow its profitable TPM operations. As implied by Unisys' adopted description, "the power of two" is beginning to exercise its strength in the TPM arena.

Maintenance Operations

Utilizing the resources of both the Burroughs and Sperry customer service organizations, Unisys' Customcare is backed by over 15,000 service employees worldwide. A combined pool of 8500 field engineers are available to service both Unisys systems and the range of foreign products covered under Customcare. These engineers active in the field perform over 90% of Unisys TPM service. Although Unisys does offer depot support options, on-site business is more of a focus for the company, offering better revenues and fulfilling the requirements of a majority of Customcare users. Depot support is looked at as more of a convenience to those accounts who request mail-in/carry-in options for their low-end products.

Depot operation are centered in Unisys' Holland, Ohio facility, although some repair can be performed at the local level at the level of modular swap-out repairs. All 350 current Unisys support locations are tied into the Customcare network, housing engineers and parts inventories used in both on-site and depot third-party service.

Service Coverage

Unisys Customcare offerings are centered around the mid-range to low-end lines of IBM and, more recently, DEC products. Although support into the mainframe level is performed by Customcare engineers, service on high-end systems only accounts for 11 to 12% of Unisys third-party business. Over 90% of TPM work is performed under contract, Unisys preferring not to solicit shorter term per-call relationships with users.

The support of mini and microcomputers make up the bulk of Unisys business, split fairly evenly between the two product sectors. Services ranging from installation and training to upgrade and refurbishment work are offered across the small systems and PC families, and telecommunications and software services are on the rise. Although Unisys admits that vendor-supplied software support is difficult to compete with at higher levels, an applications support "hotline service" has recently been introduced to assist users of micro products.

- Brands supported include IBM, DEC, AT&T, Amdek, AST, CDC, Centronics, CIE, Cipher, Clearpoint, Codex, Compaq, Cordata, CTS, Ciper, Dataproducts, Documation, Epson, Emulex, Fujitsu, Hayes, HP, Kennedy, Lear Siegler, Mitsubishi, NEC, Okidata, Pertec, Quadram, Qume, Shugart, Siemens, Storage Tek, STC, Sysgen, Systems Industries, Tallgrass, Tally, Tecmar, Televideo, Texas Instruments, Wyse, and Zenith.

Products maintained are:

- Mainframes
- Telecommunications
- Minicomputers
- LANs
- Superminicomputers
- Modems
- Microcomputers
- Multiplexers
- Peripherals

Services provided are:

- Manufacturer warranty
- Installation/relocation
- Remedial maintenance
- Conversion/upgrade
- Preventive maintenance
- Equipment sale/lease
- Software maintenance
- File conversion

- ECO/FCO change orders
- Consulting
- Training

Competitive Focus

Unisys, marketing its strength as “the power of two,” sees its sheer size as a unique competitive factor in the race for third-party revenues. Combining the resources of two of the larger manufacturer organization in the business, Unisys stresses the financial and technical strength behind its TPM operation, as well as its aggressive stance as a manufacturer-related TPM organization. Focusing heavily on third-party services within its customer support operation, Unisys feels secure in competition against major rivals IBM and DEC.

Unisys also feels that the security of an organization as large and financially stable as Unisys is a strong point in the fight against smaller and regional TPMs. Efficiencies gained in distribution, training, and dispatch operations, as well as the combined technical experience of two established engineer pools, allow Unisys Customcare to provided a higher quality of support than many TPMs in the market.

Market Outlook

Concentrating in the two hottest product-markets in the TPM arena, Unisys is up against heavy competition from both the manufacturer and third-party side. Both IBM and DEC have moved to protect service revenues in recent months, and Unisys is feeling the heaviest threat in terms of extended warranty plans favored by the manufacturers. Keeping third-parties out of the running for a full year on all DEC system, and up to three years on certain popular peripheral products, warranties are costing Unisys in terms of early account penetration and in terms of potential revenues over those years.

Having started out in the IBM arena, Unisys is less concerned over the recent rash of CSA-type discounting plans hitting the market than other TPMs now breaking into the IBM mid-range marketplace. Unisys' existing accounts are reportedly remaining secure and satisfied with the quality and price offered by Customcare, and Unisys plans to concentrate on gaining the interest of users whose critical uptime needs make CSA-type arrangements less attractive. Not currently planning a direct response to the CSA or Mid-Range Amendments, Unisys intends to watch its target market and make the moves necessary to keep customers satisfied.

Strategic Perspective

Combining the resources of the Sperry and Burroughs customer service operations, the Unisys merger has introduced a new force to the competitive third-party marketplace. Since the acquisition move that combined the two organizations, Unisys has deserted its acquisition strategy to concentrate on growing its TPM business internally. And targeted revenue figures, projecting 50%-plus growth in the next fiscal year, indicate the aggressive stance the new giant intends to take in the TPM arena.

A certain target for increased penetration will be major network accounts within the IBM and DEC marketplace. Able to offer the advantages of advanced service automation enjoyed by Unisys' large system customers, while still concentrating on the needs of users in the mixed-vendor environment, Unisys plans to aggressively market these strengths in the growing PC and terminal network marketplace. Efforts in third-party sales, promotion, and product capabilities will be stepped up to help Unisys better the \$65 to 70 million in TPM revenues projected for 1987, and with the force of one of the largest manufacturer organizations in the industry behind it, Unisys Customcare is well equipped to meet its optimistic goals.

Xerox Americare

Xerox Square
Rochester, NY 14644
(800) 435-7472

- David T. Kearns, President
- \$24 million in TPM revenue
- 20% growth expected for 1987
- Active 4 years in the TPM market

Company Update

Americare, the third-party maintenance arm of Xerox Corporation, continues to exhibit steady and calculated growth since its inception in 1983. Xerox's Americare unit began as a depot repair organization serving the microcomputer maintenance market. Xerox positioned its Americare unit as a nationwide IBM-alternative carry-in repair center organization. In 1984, Xerox broadened its focus with the adoption of the Americare dealer programs. The Americare dealer programs provided Xerox with a new channel into the third-party marketplace as well as a chance for dealers who did not have their own support organizations to compete for national account business. Americare also broadened its strategic stance internally in 1984 with its expansion into on-site service provision, along with continued growth of its list of products and brands serviced. In 1985 Xerox began to target larger account end users — the Fortune 1000 — exercising its then established support base and finetuning its strategic focus.

Currently, Xerox Americare's priority has been targeting the Fortune 500 and other large business accounts. During 1986 Xerox began offering network support for IBM's token ring, Lattisnet, and others. Xerox is hoping to continue to broaden its support offerings in the future, including expansion into software support.

Maintenance Operations

Xerox's Americare operation currently has 290 people dedicated to third-party service activities. Service breakdown is as follows: ten in management, 23 in field support, 17 in administration, and 240 field engineers. These personnel operate out of 78 different service locations. Each service location also doubles as a repair facility which reflects Americare's origin as a strictly depot organization.

Xerox's Americare operation was responsible for \$24 million in revenue in 1986, a 60% increase over 1985. Since Americare evolved from a depot-only service provider it is not surprising to see that 67% of its revenue is derived from depot repair. On-site service revenue repre-

sented an additional 30% of total revenue in 1986. From its inception in 1984, Xerox has increased its on-site service revenue in a steady fashion. The remaining 3% of total revenue was derived from pick-up and delivery services that Xerox provides to its customers.

Xerox's third-party business base is evenly divided between revenue derived from service contracts and that of hourly/call service. Each was responsible for 50% of Xerox's total revenue. The 50% figure for service contract-based revenue represents a 20% drop from 1985.

If Xerox's Americare unit is unable to provide service to a customer through out one of its 78 service locations, Americare field engineers will train a Xerox technician located in one of the 100 Xerox service districts to handle the customer's requirements. Having Xerox's service districts and personnel at its disposal understandably strengthens Americare's competitive position.

Americare's dispatching process is fully automated. Each call is queued in accordance with the customer or contractual requirements. Each customer is then given an estimated field engineer's time of arrival. If there is a delay during the repairing of the machine or the field engineer encounters problems repairing the customer's equipment, Americare's escalation procedure takes effect. The escalation procedure requires the field engineer on-site to contact an Americare expert at a local office or at service headquarters for assistance.

Training is required by Americare and usually takes the form of an interactive video training course developed by Americare experts familiar with microcomputers and peripheral equipment.

Service Coverage

Xerox's Americare unit has 78 service locations. In addition, it has at its disposal 100 Xerox service districts combined with a total Xerox maintenance force of over 14,000. By operating in this manner Americare extends its reach throughout the mainland United States as well Hawaii and Alaska.

Xerox services multiple vertical markets in the traditional sense. However, Xerox strives to focus on organizations that can take full advantage of Xerox's strengths: technical, administrative, and distribution. Traditionally defined, the majority of Xerox's service revenue is derived from the following industries: financial services, education, manufacturing, medical, and government.

Brands supported include: Compaq, AT&T, IBM, Kaypro, Victor, Zenith, Epson, Hewlett-Packard, NEC, and Okidata.

Products maintained are:

- Microcomputers
- Peripherals
- Telecommunications
- LANs
- Modems
- Multiplexers
- Satellite earth stations

Services provided are:

- Manufacturer warranty
- Installation/relocation
- Remedial maintenance
- Conversion/upgrade
- Preventive maintenance

Competitive Focus

Xerox's Americare unit prides itself on "Xerox quality, Xerox service, and Xerox stability." Xerox's strengths in administration and distribution make it very strong in its chosen market: microcomputer and peripheral maintenance. Xerox believes that its strong financial backing ensures its longevity in the TPM market and helps allay any fears that microcomputer users may have on this point.

As mentioned earlier, Americare's leveraging of Xerox's service force to augment its own service locations is an obvious advantage. It is relatively simple for an Americare field engineer to train a Xerox customer engineer on a particular product.

Xerox feels that its main competition comes from TRW, Sorbus, and General Electric, all of them strong in the microcomputer market.

Xerox has no set price on large bids and instead always negotiates a price based on market research, feedback from end users, and advertised pricing and offerings.

Market Outlook

Xerox's Americare unit is looking favorably on the microcomputer maintenance market for 1987. They are projecting a 20% increase in revenue which would put them at approximately \$29 million for fiscal 1987. This would be consistent with Americare's historical growth rate.

Americare is pleased with its fortunes concerning its network support services. Product coverage in this area has increased from IBM's Token

Ring and Lattisnet to include 3Com's local area network, Novelle, and Ethernet. Although revenue figures for its network service were not available, Americare stated that it is growing at a very rapid rate.

Americare feels that the microcomputer maintenance market will continue to grow although increasing microcomputer reliability and increased competition from other service providers may put downward pressure on maintenance prices.

There are three markets that Americare will soon be tackling: display terminals, data backup, and minicomputers.

Americare is actively looking for appropriate display terminals that it wishes to service. Some of the criteria being considered are number of units shipped, installed base, and product age. However, Xerox's Americare unit has always listened to its customers so the overriding criterion will be what type of display terminals its current customers are using.

Many of Americare's microcomputer customers are requesting assistance with data storage and backup. Furthermore, they are requesting maintenance from Americare on the resulting configuration. Americare's customers have communicated to Americare that they want the ability to retrieve valuable data if it should be destroyed or lost. While Americare does not plan on offering full-scale disaster recovery services (hot sites, cold sites, etc.), Americare feels a lesser degree of protection, in the form of data backup, is in order for its microcomputer customers. Americare feels that data backup for microcomputer users will be a lucrative market and Americare expects to be offering this as a standard service in the near future.

Finally, Americare is hoping to penetrate the minicomputer maintenance market. Americare hasn't settled upon which brands and vendors it would like to service yet, but Americare's target date for this service offering is late 1988 (fourth quarter).

Strategic Perspective

Xerox's Americare operation has shown a willingness to experiment in order to penetrate new service markets, as evidenced by its recent network support service offering. As mentioned above, Americare is actively pursuing three additional markets it hopes to penetrate in the near future: data backup, minicomputers, and display terminals.

Americare is well positioned to take advantage of these opportunities in the maintenance industry. Not only does Americare have its own service locations and support staff but it also has access to Xerox's formidable manufacturing service organization. Americare can also rely on Xerox's

financial strength to help it through the current maintenance industry consolidation and through any potential future industry shakeouts.

As long as Americare continues to be instilled with Xerox's commitment to quality and service, Xerox's Americare operation should continue to grow and prosper well into the future.

