



# innovations

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## IN SOFTWARE SUPPORT

THE JOURNAL OF THE SOFTWARE SUPPORT PROFESSIONALS ASSOCIATION

### Global Outsourcing of Software Support: Strategies and Tactics For Successful Implementation

by *Mandli M. Sathyanarayan, President*  
*24by7 Corporation*

*The notion of Global outsourcing or leveraging skill sets around the world is being increasingly utilized by companies for gaining competitive advantage. In this article, M. M Sathyanarayan explores the challenges and benefits of applying this concept for software support and presents the Global Outsourcing Competency Model, which details factors and best practices for success. This article focuses on 2nd and 3rd level software support, though the principles apply to level 1 also. An alternative approach is discussed for those companies not choosing to deal directly with companies located overseas.*

Global outsourcing is emerging as a key strategy to address the ever increasing demand for providing software support in many technology-based corporations. This is driven by the availability of knowledge workers outside US and Europe, in countries such as India, China, Russia and Israel. Also, communications infrastructure around the world has improved enough to be able to consider providing software support from those locations. Internet is a key part of this communications infrastructure.

Global outsourcing as a concept is neither unique nor new. Examples of global outsourcing are not hard to find in every day life. All you have to do is walk into any department store and pick up a shirt. It is likely to have the American label and look every bit the type of shirt that you are used to buying. On closer examination you are likely to find that it was made in Srilanka. The fabric was invented and made in the U.S. The manufacturer in Srilanka followed specifications laid out by the U.S. company. In this case, the shirt manufacturer in the US has leveraged skill sets around the world for competitive

advantage. The auto industry on the other hand, is more complex than the previous example. They have been carrying on global outsourcing of their manufacturing function for a long time. In the auto industry, interfaces and processes can be well defined.

The computer industry also has been outsourcing manufacturing on a global basis. For example, Taiwan supplies major components of PCs. In both these instances of manufacturing, leveraging skill sets globally is the key notion.

#### **Challenges In Global Outsourcing Of Software Support**

Can this notion of leveraging skill sets around the world

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**By Bill Rose**  
**Founder and**  
**Executive Director**

Over the past three years, the SSPA has experienced monumental growth, not just in the number of members, but the *value* of SSPA membership has increased significantly as well. Since 1995, SSPA membership has more than doubled. With over 600 member companies, SSPA provides benefits and services to well over 5000 software service executives.

SSPA has always been committed to “providing access to industry experts” and now, more than ever, SSPA members can take advantage of the numerous opportunities to come together with other industry leaders through Online Forums, Virtual Roundtables and SSPA Events. New benefits such as Executive Sessions, conducted online monthly, gives members one more opportunity to connect with their peers to discuss the latest industry issues.

These services have always been available, free of charge, to SSPA members, and I encourage members to take advantage of these invaluable opportunities that provide you with the tools needed to stay at the forefront of the software support industry. Visit us online and participate in the next Executive Session on Thursday, February 25. Hope to see you there!

<http://www.sspa-online.com>



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be applied to software support? Particularly at levels 2 and 3, it is knowledge and people intensive. People are creative and this poses a different set of management challenges compared to managing manufacturing. Also, because technology, tools and processes continue to change, it provides further challenges.

Changing current operations of a company by going the route of outsourcing, in itself provides significant challenges; however going global adds another dimension of complexity. You will now need to address these issues:

- Collaboration across country borders in addition to collaboration across company borders. This brings into focus issues such as variations in culture, legal systems and infrastructure.
- Changes that need to occur at the parent — organizationally and operationally. This is often overlooked, but is a very key component for achieving success.
- Dealing with impact of distance and differing time zones.
- Remote management and control.
- Technology transfer and intellectual property issues

### **Why Companies Consider Global Outsourcing Of Software Support**

Given such variables, the key question becomes whether software can be supported and/or developed in a distributed model around the world. Many companies such as Tandem, BNR, Sequent, GE, AT&T, IBM are already engaged in exactly this endeavor. Many other companies are considering such ventures. Our research indicates that companies consider Global Outsourcing for one or more of the following reasons:

- You can provide round the clock support at competitive cost (compared to setting up a 24 hour operation in the U.S). For example, when US is not working, the operation half way around the world can be.
- Many computer companies are facing shortage of critical skill sets. They need to leverage applicable skill sets regardless of location to achieve time to market.

*Continued on page 5*

# Support Services Conference & Expo, East

## What's the key to delivering World Class Support?

### FIND OUT!

Don't miss SSPA's Software Technical Assistance Recognition Award ceremony, where we will showcase the 1997 winners and present them with their well-earned awards.



**Date:** *Monday, March 10, 1997*

**Time:** *7:30 p.m. - 9:00 p.m.*

**Place:** *Support Services Conference & Expo, East  
Opryland Hotel, Nashville, TN*

**Who:** *Anyone interested in delivering exceptional support.*



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# UP COMING EVENTS

## MARCH 1997

### Support Services Conference

March 9-11, 1997

Opryland Hotel & Convention Center  
Nashville, TN

This event, sponsored by Help Desk Institute and the Software Support Professionals Association, is where the industry comes together to discuss the technologies and issues facing customer service and support professionals. This conference attracts more than 6,000 support professionals to the educational conference and interactive trade show floor. The Support Services conference offers more than 150 break-out sessions, plus nearly 200 additional learning and networking opportunities. In addition, the Software Technical Assistance Recognition (STAR) Awards will be given out.

### VIRTUAL RoundTable

March 19, 1997

#### 3rd Party Support Alliances and Partnerships

Alliances are a key to successful multivendor support programs today, but they don't always require an exchange of cash to make them work. This roundtable will examine how software providers get the support they need and strategies for getting the greatest value out of support alliances. In addition, discussion will focus on how these alliances are set-up and how they operate between support organizations, including contact procedures, call ownership, legal issues and more.

#### Executive Session

March 25, 1997

10:00 a.m. PST

The SSPA Executive Sessions are new monthly roundtables conducted online for SSPA Members. Moderated by Bill Rose, these hour long sessions are intended to bring together leading The SSPA Executive Sessions are new monthly roundtables conducted online for SSPA Members. Moderated by Bill Rose, these hour long sessions are intended to bring together leading industry experts to discuss the latest issues in software support.

## APRIL 1997

### VIRTUAL RoundTable

April 23, 1997

#### Legal Issues and Liabilities in Software Support

Customers and their lawyers are gradually learning that they have the same quality-related rights in software as they have in other products. As a result, they are beginning to sue software publishers for bad software. This session will talk about software support practices and how they can reduce, or heighten your risk of litigation by reasonably or unreasonably angry customers.

#### Executive Session

April 22, 1997

10:00 a.m. PST

The SSPA Executive Sessions are new monthly roundtables conducted online for SSPA Members. Moderated by Bill Rose, these hour long sessions are intended to bring together leading The SSPA Executive Sessions are new monthly roundtables conducted online for SSPA Members. Moderated by Bill Rose, these hour long sessions are intended to bring together leading industry experts to discuss the latest issues in software support.

### Don't Miss This Month's

### VIRTUAL RoundTable

2/18/97

#### Using Interactive Tools for Support

Customers who are connected to the World Wide Web and BBS are looking for answers to questions and problems. Why not collect data, grab your customers attention and connect them to a support technician to resolve the problem? This session will explore the issues of on-line interactive support, the advantages and disadvantages of using this technology, and how to assist customers when they have attempted to help themselves.

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# Global Outsourcing of Software Support

Continued from page 2

- It allows staffing flexibility. Companies do not have to hire permanently, skills needed for short duration.
- It offers the potential to improve cost structure.

## How Do You Succeed In This Endeavor?

To answer this question we went to companies already engaged in this activity to understand factors for success. Instead of gathering survey information or asking for overall recommendations, competency interviews were conducted in which participants were asked to describe what they had actually done — what worked well and what worked poorly.

The data consists of in depth discussions with over 50 executives from multi-national companies. They provided insights into what they have actually done to globally outsource software support. Besides this research, the author has drawn heavily upon his personal management experiences in this area. From these incidents, the author gleaned the major factors which in his judgment discriminate effective from ineffective instances. No quantitative methods such as discriminate analysis or factor analysis were used.

The factor information was structured into two tiers with general factors and associated business practices related to each factor. Each factor describes a distinction in orientation, attitude, behavior, or business activity which discriminates the effective from ineffective Global Outsourcing. Each practice contains a similar distinction. The Global Outsourcing Competency Model presented in figure A provides a summary view of the results of this research.

## Getting Started

Successful companies recognize from the start that global outsourcing of software support is a significant multi-disciplinary effort requiring top level commitment. Once

this is established and communicated to the organization the next steps are to :

- Establish a champion for the company and have that person report to a senior executive.
- Establish sourcing strategy (full outsourcing, selective outsourcing, joint ventures, knowledge based strategic alliances)
- Develop request for proposal (RFPs)
- Develop multi year financial models for the best case in house and the vendor proposals
- Evaluate proposals and negotiate with potential partners
- Finalize a contract.

- Establish metrics for reviewing partner performance
- Select products
- Set up a networked organization consisting of parent company and partner personnel
- Effect technology transfer if applicable
- Re-engineer

processes for export control compliance and remote access

- Execute
- Evaluate results
- Improve operations

## An Alternative Approach

Though global outsourcing offers many benefits, some companies do not find it attractive to select and manage an outsourcing partner overseas. Reasons for this orientation are the lack of economy of scale, higher priority projects vying for management attention, investment required and the lead time to make it operational.

In such cases, an alternative is to hire an outsourcing company located in the native country, but has access to resources in the offshore country. This approach offers

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*“Global outsourcing as a concept is neither unique nor new. Examples of global outsourcing are not hard to find in every day life. All you have to do is walk into any department store and pick up a shirt.”*

# Global Outsourcing of Software Support

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the following benefits:

- The outsourcing vendor insulates the client company from time consuming logistics issues such as selecting a country, establishing and managing facilities, customs and immigration issues. For example, most professionals from India require H-1 visas to work in the U.S. Also local presence largely insulates the client company from having to deal with cultural and time difference issues.
- The client company has a single interface. Project coordination is handled with the local project manager and can include regular face to face reviews.
- Since the client company deals with a local company, business negotiations are handled locally, questions are handled in real time, travel time and expenses are minimized.
- It facilitates a faster start. Computer industry is very competitive and time to market is of serious concern. This factor alone may be compelling enough for some companies to take this route.

## *About the Author*

M. M. Sathyanarayan is President of 24by7 Corporation located in Cupertino, California. 24by7 Corporation is a provider of outsourced software support. Prior to his starting 24by7, Mr. Sathyanarayan was Business Director of Global Development at Tandem Computers, where he was responsible for developing and implementing outsourcing strategies for software development and support, resulting in a 200+ person globally distributed outsourcing organization. During the last 20 years, he has established strategic partnerships, international operations and managed software development. He speaks frequently at industry forums. Internet address: sath@24by7.com. Phone: (408) 255-4140



## *Vice President of Customer Support*

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# Global Outsourcing Competency Model: Factors and Best Practices for Success

Figure A

FACTORS AND BEST PRACTICES FOR SUCCESS		
	FACTOR	BEST PRACTICES
<b>STRATEGY</b>	<ul style="list-style-type: none"> <li>• Define distributed business model</li> </ul>	<ul style="list-style-type: none"> <li>• Set specific business objectives beyond cost</li> <li>• Select country for best long term fit</li> <li>• Plan to invest early at the right levels</li> <li>• Beyond salaries, determine entire cost</li> </ul>
	<ul style="list-style-type: none"> <li>• Leverage unique Global Development capabilities</li> </ul>	<ul style="list-style-type: none"> <li>• Find and select partners to capitalize on unique global capabilities for skill set, cost and cultural fit</li> <li>• Set criteria for projects to fit the distributed roll out plan</li> <li>• Select a strategy to gain momentum</li> <li>• Address all aspects of technology transfer</li> </ul>
<b>ORGANIZATION</b>	<ul style="list-style-type: none"> <li>• Create a globally distributed organization</li> </ul>	<ul style="list-style-type: none"> <li>• Design distributed organization as a location independent global extension of parent</li> <li>• Make one global team accountable to build and operate distributed organization</li> <li>• Empower teams with information and authority</li> <li>• Establish and manage relationships: Partner relationships, employee relations, public relations</li> </ul>
	<ul style="list-style-type: none"> <li>• Organize to operate in multi-cultural environments</li> </ul>	<ul style="list-style-type: none"> <li>• Dealing with different languages</li> <li>• Dealing with context, time, information flow and power issues</li> <li>• Negotiating in multi-cultural environment</li> <li>• Working overseas in a different culture</li> </ul>
<b>OPERATIONS</b>	<ul style="list-style-type: none"> <li>• Operate as a single globally distributed organization</li> </ul>	<ul style="list-style-type: none"> <li>• Retain and expand significant knowledge</li> <li>• Employ 200% ownership approach</li> <li>• Provide tools for seamless integration of organizations</li> <li>• Re-engineer processes for export control compliance</li> <li>• Assure intellectual property protection at distributed sites</li> <li>• Assure people mobility</li> </ul>
	<ul style="list-style-type: none"> <li>• Install mechanisms for remote management and control</li> </ul>	<ul style="list-style-type: none"> <li>• Provide supplementary project management</li> <li>• Install measurement and control systems</li> <li>• Manage project risks proactively</li> <li>• Install long distance operating processes</li> <li>• Install context driven timely</li> <li>• Account for variations in operating environment</li> <li>• Think globally; make local issues transparent communications</li> </ul>
<b>IMPROVEMENTS</b>	<ul style="list-style-type: none"> <li>• Manage pattern of successes and communicate on a continuous basis.</li> </ul>	<ul style="list-style-type: none"> <li>• Proactively manage pattern of project successes</li> <li>• Manage user expectations</li> <li>• Conduct multi-level marketing</li> <li>• Become a pro-active change agent</li> <li>• Issue timely communication about successes</li> </ul>
	<ul style="list-style-type: none"> <li>• Accelerate and improve performance</li> </ul>	<ul style="list-style-type: none"> <li>• Establish a habit of continuous improvement from day one</li> <li>• Leverage distributed location for strategic advantage</li> <li>• Raise the process of effectiveness at the distributed site and leverage it to drive the parent organization</li> </ul>

# Developing an Electronic Support Services Strategy

*By John Custy, SSPA Senior Consultant*

Before you define the requirements for your Electronic Support Services offering you should ask yourself how these services fit into your companies Support and Electronic Services strategies. If you cannot map these new services to your strategies, then you will probably confuse your customers and your employees. You will also miss the opportunity to maximize the value of these services.

The primary strategic objectives for Electronic Support Services are: Improved Customer Satisfaction, Improved Competitive Position, Higher Value Services and Increased Revenues. To reach these strategic objectives we implementing Electronic Service offerings that allow: electronic submission for new incidents, checking the status of open calls (incidents), software distribution and some type of knowledge sharing. What we are usually trying to accomplish is having our customers solve more problems and answer more questions on their own by making our knowledge repositories available to them. However, before you set off and develop these new services you need to determine what level of services your customers want and what services they can use.

Assuming that you have defined the strategic objectives of your electronic service offerings, you need to identify the tactical objectives of the new services. Are you trying to increase your first time fix rate, improve the quality of responses to questions, maximize your staff, reduce the number of phone calls or move more customers to a self-help mode? Have you identified the tactical objectives you plan to implement to achieve your strategic objectives? Do you know how well these new services will be received by your customers?

Over 90% of software companies report that they offer electronic services today, however, only 30% of their customers' report use these services. Electronic services tend to emphasize convenience and speed as the way to deliver

world class services, however many companies have built electronic services that are not utilized by their customers. Why don't our customers understand how much easier it would be for them to use the electronic services? The reason is that many electronic service offerings do not meet their strategic or tactical objectives. The time to resolve an electronic call is two to three times longer than a phone call. Why would a customer use an electronic method when it takes so much longer?

When designing these new electronic services we need to consider where in the Technology Adoption/Acceptance cycle our customers are to determine the type of electronic services they can/will utilize. We also need to understand the objectives of our customers for support services.

The Internet may seem to offer a great opportunity to reduce costs and improve turnaround times, but our execution of the programs must meet our customers' expectations.

We also need to remember that Electronic Services are more than E-Mail, the

Internet or the WWW. Electronic Services are all the services that allow a customer to access information, share knowledge or communicate with their vendors without speaking to a customer representative. Electronic Services should allow customers to do more at their convenience, not at the vendors. Customers want and need access to resolve their problems when they have the time. Examples of electronic services not tied to the Internet are: bundling new training modules, CBT or video clips to explain how to use a new feature, on the CD-ROM with updates. Providing sample applications, API's, applets, with the program code is also an example of the materials we could provide to assist customers in resolving problems.

Another opportunity for electronic services is the ability to easily customize the services we offer each customer. We can notify customers of changes in product status, send them Tech Notes or updates only for the products or environments they support. We can individualize the communication with each customer based on the profiles

***“What we are usually trying to accomplish is having our customers solve more problems and answer more questions on their own by making our knowledge repositories available to them.”***

we have developed and the customer has verified. This can allow the customer to receive only materials that are important to them, allowing us to build closer relationships with them.

We also need to market our electronic services, both internally and externally. Electronic Services programs need to be communicated. Customers, Sales, Marketing and Support must understand how these new services fit in the total support and services offering. A formal communications program is necessary to do this well. We need to have all of our companies' personnel understand how the customer will use the new services, not just what the new services are if we expect rapid acceptance of the new offering.

Electronic Support Services must complement the Electronic Services strategy for your company. The issues of

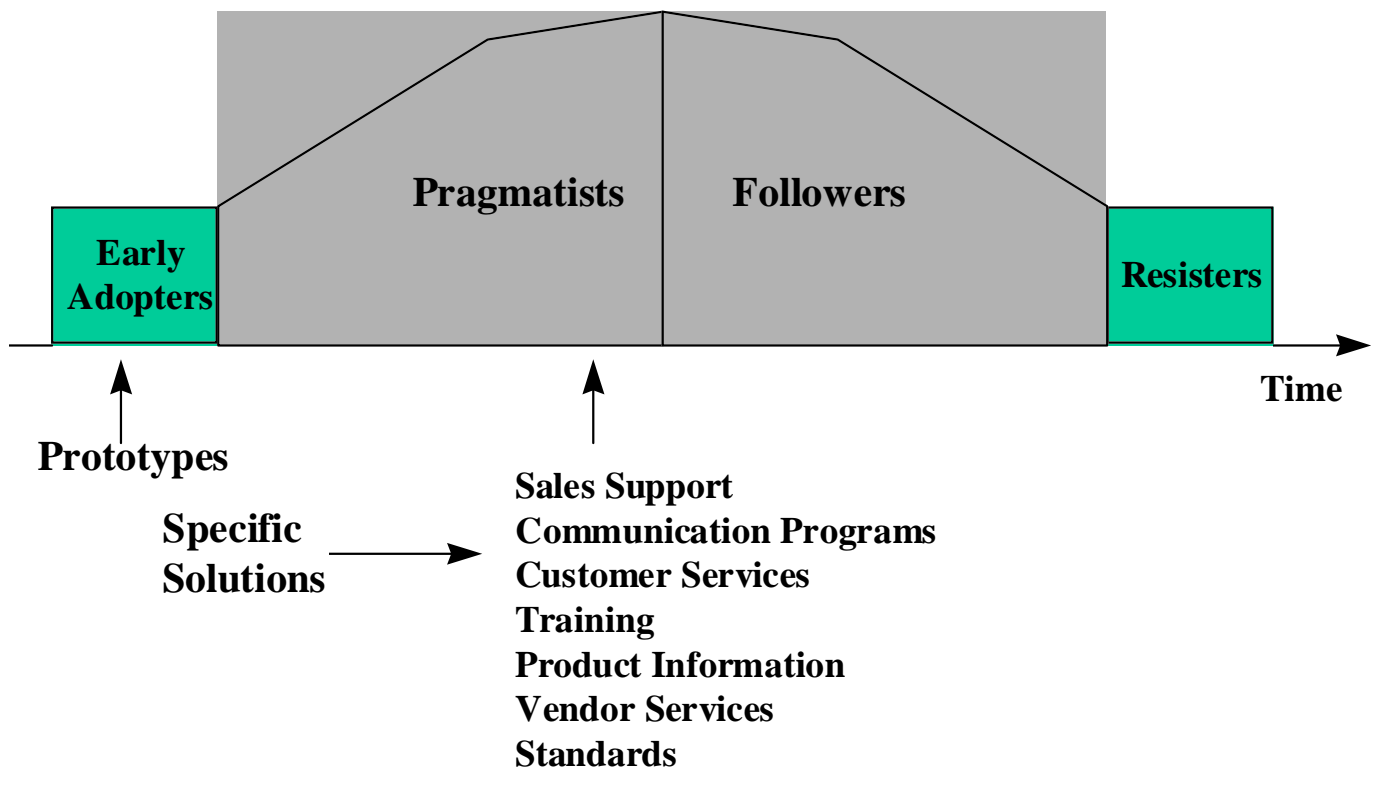
- security and infrastructure support must be addressed as
- part of your plan to implement these services. A recent
- Dataquest survey on Internet-Based Software Support
- stated that 'users seem to have a great deal of confidence
- that they will be able to find the service-related information
- they are looking for on the Internet'. We must not forget
- that in defining these new services we need to ask the
- customers what is important to them and what we need to
- do to improve services for them.

**About the author**

- John Custy has over 20 years experience in the software
- industry. He has experience in designing professional
- services, developing tiered service offerings and identify-
- ing the core competencies necessary to deliver these pro-
- grams. John is currently responsible for the delivery of
- training and consulting services for SSPA.

**Figure 1:**

## Technology Adaptation/Acceptance Cycle



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Bluestone	DataStream	Hewlett-Packard	Logical Operations
BMC Software	Datasvar Support Scandinavia	Hewlett-Packard EESOF Division	Los Alamos National Labs
Borland International	Datawatch Corporation	Hitachi Data Systems	Lotus Development Corp.
Brock International, Inc.	DCD Corporation	Holm-Dietz Computer Sys.	M/Factory
	Decisionmark	Hotel Information Sys.	MacMillian Computer
	Decisive Technology		

# MEMBER LIST, *Cont'd*

Publishing	Paciolan Systems	SAS Institute, Inc.	Success Factor Systems
MacNeal-Schwendler Corp	Parametric Technology	Scantron Corporation	Sun Microsystems
MacroMedia	PE/Applied Biosystems	Schneider Automation	Sunguard Insurance Systems
Made2Manage Systems, Inc.	PeopleSoft	SCO, The Santa Cruz	Support Management
Magic Solutions	Persistence Software	Operation, Inc.	S.W.I.F.T.
Marcam Corporation	Persoft, Inc.	Scopus Technology	Sybase, Inc.
McAfee Corporation	Pervasive Software, Inc.	SDRC	Sykes Enterprises
McGraw Hill School Sys.	Phoenix Solutions, Inc.	Seagate Software	Symantec Corp.
McQueen Limited	Pilot Software, Inc.	Seagate Software (Storage	Symix Computer Systems
MDL Information Sys.	Pitney Bowes	Management Group)	Synopsys, Inc.
MECA Software	Plant Equipment, Inc.	Secure Computing	Tandem Computers
Medicalogic, Inc.	Platinum Software	SEI Information Tech	Tech Data Corporation
MedView Services	Platinum Technology, Inc.	Sendoro Corporation	Tesseract
Mentor Graphics	Plexus	Sequent Computer Sys	The ESYS Corporation
Mercury Interactive	PointCast, Inc.	ServiceScan	The Law Office of Cem Kaner
Mergent International	Portable Software Corp.	ServiceWare, Inc.	The Quicksilver Group
Metasys, Inc.	Porter & Associates	ShareData, Inc.	The Summit Group, Inc.
MicroProse Software	Powersoft	Sherpa Corporation	Thru-Put Systems, Inc.
Microtec Research/	Prism Solutions	Siemens-Nixdorf Info. Sys	Timberline Software
Mentor Graphics	Process Software Corp.	Siemens-Nixdorf Printing	Tivoli Systems
MINDSCAPE	Professional Data Solutions	Silicon Graphics	Toshiba Amer. Info. Sys.
MJM Technologies, Inc.	Professional Support Ctr.	Silknet Software	TouchStone Software
Montgomery College	Prognostics	Simulation Sciences	Trans Cosmos USA, Inc.
Morgan Stanley	Programart	Skillsource	Triad Systems Group
National Techteam	Progress Software	SMS	Tribute, Inc.
NCD Software Corp.	Prophet 21	SOFTBANK Services Group	Trimark Technologies
NEC Systems Lab. Inc.	PSDI	Softimage	TSI International
Netcom Communications	Pure Atria	Softkey International	TSW
NetDynamics	Pyramid Technology Corp.	Softmart, Inc.	Ultradata
NetPro Computing, Inc.	QAD, Inc.	Software 2000	Unidata
Network General	Quantra Corporation	Software AG	Unisys
Neuron Data	Quintus Corporation	Software Shop Systems	United Parcel Services
Nichols Research Corp.	R & D Systems	Software Spectrum	UB Networks
Norand Corporation	Radius	Solomon Software	Vantive Corporation
Nortel	Rand McNally Media	SoMat Corporation	Verifone
Northern Telecom	Services	Sorenson Vision, Inc.	Veritas Software
Novadigm, Inc.	Reality Online, Inc.	Specifics, Inc.	Versatility, Inc.
Novell	Remedy Corporation	Speedware Corporation	Viewlogic Systems
Oberon Software	Restrac, Inc.	SPS Payment Systems	ViewStar
Object Design, Inc.	Resumix	SPSS, Inc.	Visio International
Object Technology Corp.	Reuters Information	SQA, Inc.	Visual Numerics, Inc.
Océ Printing Systems USA,	Technology, Inc.	STAC Electronics	VW&R, Inc.
Inc.	RIMS	Standpack Systems, Inc.	Wacker Siltronic Corp.
One Right Plus	Robbins-Gioia, Inc.	Starlight Networks	Walker, Richer & Quinn
On Technology Corp.	Rockwell Software, Inc.	Starpak, Inc.	Wind River Systems
Onyx Software Corp.	Rogue Wave Software	State of the Art	Wonderware
Open Port Technology	Rolfe & Nolan BSI	Sterling Commerce	WRQ Reflection Software
Optical Research Assoc.	Ross Systems	Sterling Software	Xerox Corporation
Oracle Corporation	Rothenberg Health Sys.	Storage Technology	Xilinx
Ornetix Network Products	Sales Technologies	Storm Primax	XIRCOM
OSI Software, Inc.	SAP America	Stratus Computer	Ziff Davis Support
P/E Applied Biosystems	Sarcom, Inc.	Stream International	