

OUTSOURCING
APPLICATIONS MANAGEMENT

INPUT

ABOUT INPUT

Since 1974, information technology (IT) users and vendors throughout the world have relied on INPUT for accurate, objective analysis, and insightful opinions to support their plans, market assessments and technology decisions particularly in computer software and services. Clients make informed decisions more quickly and save on the cost of internal research by using INPUT's services.

Call us today to learn how your company can use INPUT's knowledge and experience to grow and profit in the revolutionary IT world of the 1990s.

ANNUAL SUBSCRIPTION PROGRAMS

NORTH AMERICAN AND EUROPEAN MARKET ANALYSIS PROGRAMS

*Analysis of Information Services, Software, and Systems Maintenance Markets
5-year Forecasts, Competitive and Trend Analysis*

- 15 Vertical Markets
- 9 Categories of Software and Services
- 7 Cross-Industry Markets
- The Worldwide Market (30 countries)

U.S. FOCUSED PROGRAMS

- Outsourcing (vendor and user)
- Downsizing (vendor and user)
- Systems Integration
- EDI and Electronic Commerce
- IT Vendor Analysis
- U.S. Federal Government IT Procurements

EUROPEAN FOCUSED PROGRAMS

- Outsourcing (vendor and user)
- Downsizing (vendor and user)
- Systems Integration
- Network Management
- Customer Services

CUSTOM CONSULTING

Many vendors leverage INPUT's proprietary data and industry knowledge by contracting for custom consulting projects to address questions about their specific market strategies, new product/service ideas, customer satisfaction levels, competitive positions and merger/acquisition options.

INPUT advises users on a variety of IT planning and implementation issues. Clients retain INPUT to assess the effectiveness of outsourcing their IT operations, assist in the vendor selection process and in contract negotiation/implementation. INPUT has also evaluated users' plans for systems and applications downsizing.

INPUT WORLDWIDE

San Francisco — 1280 Villa Street
Mountain View, CA 94041-1194
Tel. (415) 961-3300 Fax (415) 961-3966

New York — 400 Frank W. Burr Blvd.
Teaneck, NJ 07666
Tel. (201) 801-0050 Fax (201) 801-0441

Washington, D.C. — 1953 Gallows Rd., Ste. 560
Vienna, VA 22182
Tel. (703) 847-6870 Fax (703) 847-6872

London — 17 Hill Street
London W1X 7FB, England
Tel. +71 493-9335 Fax +71 629-0179

Paris — 24, avenue du Recteur Poincaré
75016 Paris, France
Tel. +1 46 47 65 65 Fax +1 46 47 69 50

Frankfurt — Sudetenstrasse 9
W-6306 Langgöns-Niederkleen, Germany
Tel. + 6447-7229 Fax +6447-7327

Tokyo — Saida Building, 4-6
Kanda Sakuma-cho, Chiyoda-ku
Tokyo 101, Japan
Tel. +3 3864-0531 Fax +3 3864-4114

F E B R U A R Y 1 9 9 3

OUTSOURCING APPLICATIONS MANAGEMENT

INPUT LIBRARY

Published by
INPUT
1953 Gallows Road, Suite 560
Vienna, VA 22182-3934
U.S.A.

**U.S. Outsourcing Information Systems
Program**
(OSP)

Outsourcing Applications Management

Copyright © 1993 by INPUT. All rights reserved.
Printed in the United States of America.

No part of this publication may be reproduced or distributed in any form, or by any means, or stored in a data base or retrieval system, without the prior written permission of the publisher.

The information provided in this report is proprietary to INPUT. The client agrees to hold as confidential all such information, and control access to the information to prevent unauthorized disclosure. The information shall be used only by the employees of and within the current corporate structure of the client, and will not be disclosed to any other organization or person including parent, subsidiary, or affiliated organization without prior written consent of INPUT.

INPUT exercises its best efforts in preparation of the information provided in this report and believes the information contained herein to be accurate. However, INPUT shall have no liability for any loss or expense that may result from incompleteness or inaccuracy of the information provided.

Abstract

This report reviews the applications management outsourcing market that is emerging as organizations continue to turn to vendors for additional services. It explores the options that present themselves to the IS user organization that needs to concentrate on its core business and views the applications software problem as important, but not critical to the organization's success.

A forecast of the applications management market is presented and the major vendors currently active in the market are identified.

The user requirements that are stimulating demand for applications management arrangements are discussed as well as the importance of legacy systems to the user organizations.

The differences between applications maintenance and applications development are made. Vendor strategies and perspectives used to address the demands of these two submodes of applications management are reviewed.

This report contains 28 pages and 18 exhibits and was prepared as part of INPUT's 1992 U.S. Outsourcing Information Systems Program.

Digitized by the Internet Archive
in 2015

<https://archive.org/details/outourcingappli4911unse>

Table of Contents

I	Introduction	I-1
	A. Definitions	I-1
	1. Systems Operations	I-2
	2. Network Management	I-2
	3. Desktop Services	I-2
	4. Applications Management	I-3
	B. Objectives	I-4
	C. Scope	I-5
	D. Report Structure	I-5
	E. Related INPUT Reports	I-6
<hr/>		
II	Executive Overview	II-1
	A. Conclusions	II-1
	B. Recommendations	II-1
	C. Market Characteristics	II-2
	D. Vendor Perspectives	II-3
<hr/>		
III	Market Characteristics	III-1
	A. Market Definitions	III-1
	B. Market Forecast	III-3
	C. Impact of Transition Outsourcing	III-5
	D. Longevity of Legacy Systems	III-6
	E. User Requirements	III-8
<hr/>		
IV	Vendor Perspectives	IV-1
	A. Leading Vendors	IV-1
	B. Vendor Strategies	IV-3
	C. Conclusions and Recommendations	IV-4

Exhibits

I

- | | | |
|-----|---|-----|
| - 1 | IS Outsourcing Definition | I-1 |
| - 2 | IS Outsourcing Components | I-2 |
| - 3 | Systems Outsourcing vs. Systems Integration | I-3 |
| - 4 | Business or Function Operations | I-4 |
-

II

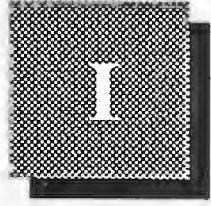
- | | | |
|-----|---|------|
| - 1 | Applications Management Market, 1992-1997 | II-2 |
| - 2 | Major Applications Management Vendors | II-3 |
-

III

- | | | |
|-----|--|--------|
| - 1 | Outsourcing Definitions | III-2 |
| - 2 | U.S. IS Outsourcing Markets, 1992-1997 | III-3 |
| - 3 | Applications Management 1992 Market | III-4 |
| - 4 | Applications Management Market 1992-1997 | III-5 |
| - 5 | Profile of a Typical Application Management Contract | III-7 |
| - 6 | Current User Requirements | III-8 |
| - 7 | Future User Requirements | III-9 |
| - 8 | Key Decision-Makers | III-10 |
| - 9 | Future Outsourcing Intentions | III-11 |
-

IV

- | | | |
|-----|---------------------------------------|------|
| - 1 | Major Applications Management Vendors | IV-2 |
| - 2 | Vendor Approaches | IV-4 |
| - 3 | Recommendations | IV-5 |



Introduction

Applications management, one of the emerging outsourcing arrangements, is often confused with applications operations. They are different, and the Definitions section that follows immediately after this section identifies the various outsourcing arrangements that can be entered.

Applications management presents new options to the IS executive, who is so buried in software maintenance activities, that the executive has no time to develop new applications. It also offers relief to the user department, which is on its own, and doesn't have the resources to develop and maintain new software applications that it needs to remain competitive.

This report takes an early look at this market segment to see what it consists of and where it is going. Much discussion of what this market will do in the next few years prompted INPUT's analysis at this time.

A

Definitions

IS outsourcing is the contracting of an information system function or process to a vendor on a long-term (at least one year) basis (see Exhibit I-1).

EXHIBIT I-1

IS Outsourcing Definition

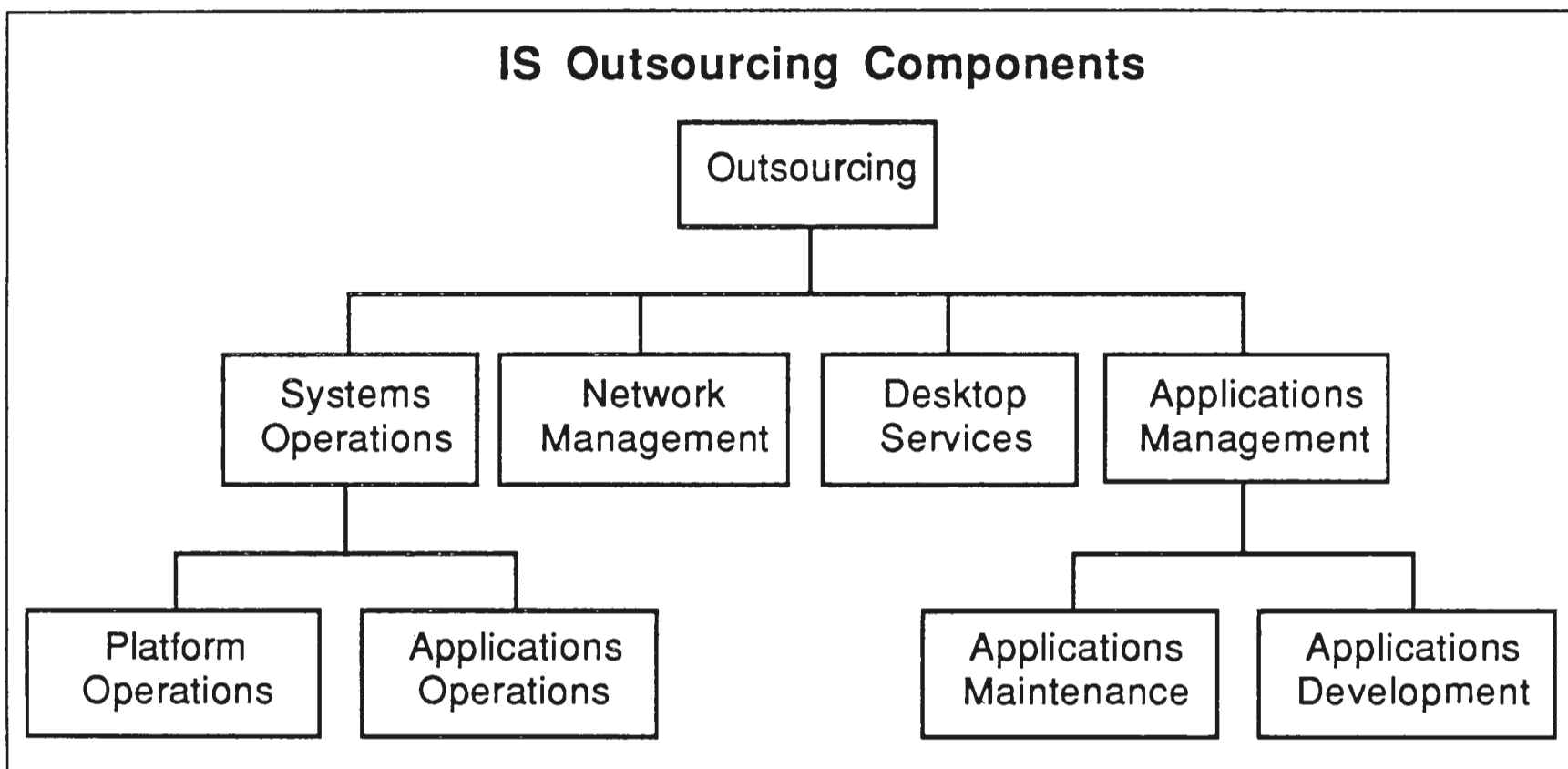
Information systems (IS) outsourcing is the contracting of an IS process or function to an external vendor on a long-term (1+ years) basis.

As shown in Exhibit I-2, the various IS outsourcing segments are:

1. Systems Operations - Contracting to a vendor the information systems operations in either of two ways:

- *Platform Systems Operations* - The vendor is responsible for managing the computer systems and their associated networks.

EXHIBIT I-2



- *Applications Systems Operations* - The vendor is responsible for developing and/or maintaining a client’s applications software as well as operating and managing the computer systems and their associated networks.

2. Network Management - Contracting to a vendor for the operations and management of the computer-related telecommunications network, transmitting data and text, voice, image, and video as required. Voice-only network operations are not part of information systems outsourcing.

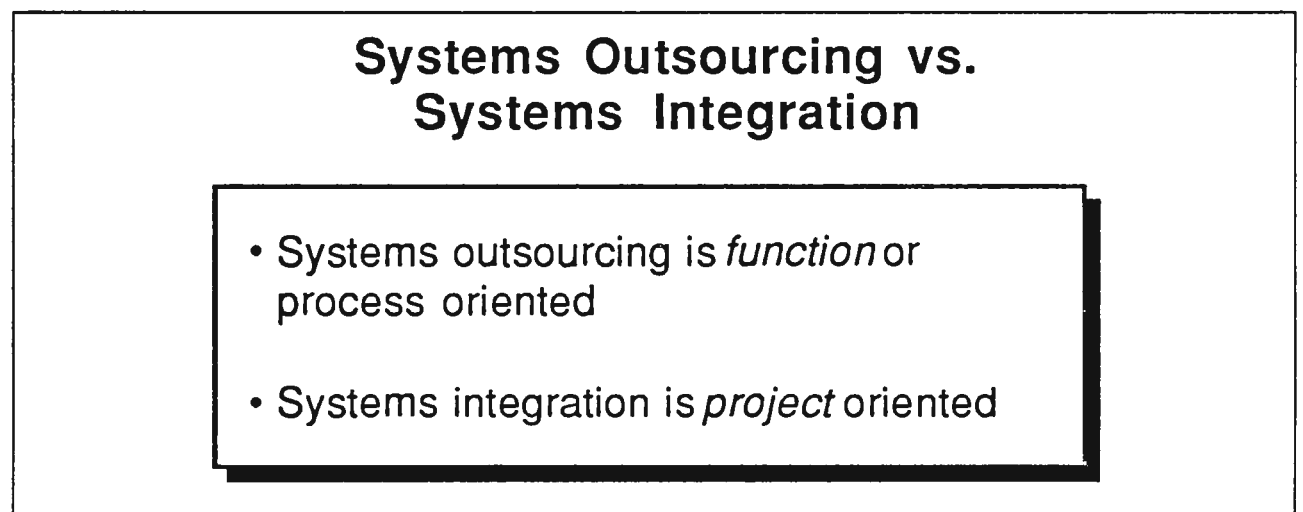
3. Desktop Services - Contracting to a vendor for the deployment, maintenance, support, and connectivity of the organization’s PC/workstation inventory. The service may also include performing the “help desk” function.

4. Applications Management - The vendor is responsible for the development and maintenance of all the applications systems a client uses to support a business operation.

- *Applications Development* - Contracting for the design, development, maintenance and enhancement of new applications software associated with a business operation.
- *Applications Maintenance* - Contracting only for the maintenance of the existing applications software associated with a business operation.

Information systems outsourcing is distinguished from systems integration in the following way: systems integration is project oriented, i.e., there is a definable start and end point to the relationship. At the end of the contract period the responsibility passes back to the client. Systems operations and other forms of outsourcing are process oriented, i.e., there is a continuing relationship and the responsibility for providing the function rests with the vendor. (See Exhibit I-3.)

EXHIBIT I-3

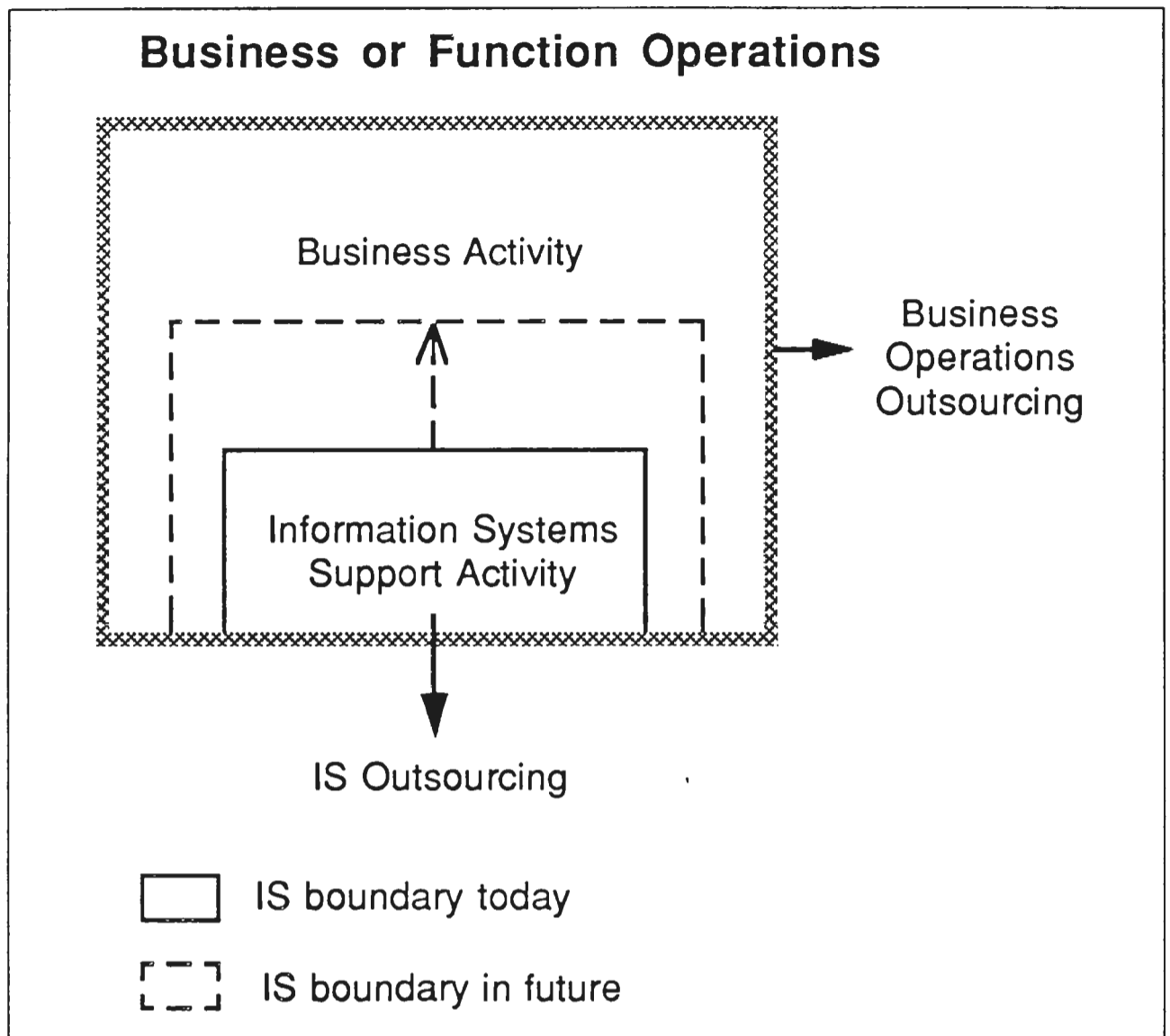


Another area of outsourcing that relates to IS outsourcing is that of business or function operations. As depicted in Exhibit I-4, a business activity that encompasses an IS activity can be outsourced. In some cases, the proportion of the business activity that is due to IS can be as high as, for example, credit card operations or airline reservations. In other cases it may be as low as in textile manufacturing.

When a business function is outsourced it includes the people and other organizational elements as well as IS.

In the 1990s, the boundary between "IS" and non-IS inside a business function will be increasingly blurred. This will make the distinction between IS outsourcing and business function outsourcing more difficult to make, and perhaps less relevant.

EXHIBIT I-4

**B****Objectives**

This report has the following major objectives:

- Position applications management in the total outsourcing market picture.
- Identify the components of application management and clarify how users are making use of them.
- Identify the characteristics that are likely to make a vendor successful in this market.
- Describe the user requirements that are met by this type of outsourcing arrangement.

This report is written for the user executive who, to remain competitive, has to resolve management problems with the function responsible for the development and maintenance of applications software. It is also written for

the vendor that wants to participate successfully in this emerging segment of the outsourcing market.

C

Scope

INPUT intends this report to be a first look at this outsourcing market segment. To speed the results to the reader, only a limited number of in-depth interviews were conducted. The data derived from these interviews could not be analyzed statistically. Rather, trends and directions were identified and developed on the basis of these results, then combined with the results of other research conducted throughout the 1992 period on the U.S. outsourcing market by INPUT.

INPUT's analysis focuses primarily on the U.S. market, although it is supplemented by another INPUT study for the European market. Many similarities exist between the two markets.

D

Report Structure

The following is a brief description of the organization of the report:

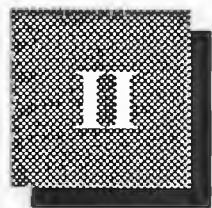
- Chapter II is an Executive Overview, which provides a summary of the major research analysis, conclusions and recommendations of the entire report.
- Chapter III, Market Characteristics, dissects the two portions of the applications management market and forecasts the size of each of the two segments. It also assesses the impact of transition outsourcing on this type of outsourcing arrangement. Finally, this chapter examines the user requirements to better assess how the potential for this market will change over the next five years.
- Chapter IV, Vendor Perspectives, is based on some in-depth discussion with major vendors that are active in the applications management segment of the outsourcing market. It identifies what characteristics users look for in vendors chosen to manage their applications software. Then this chapter will draw conclusions about the direction of this segment of the market and recommend what various types of vendors can do to grow with it.

E

Related INPUT Reports

Other INPUT reports related to downsizing and outsourcing include the following:

- *Systems Architectures for Downsizing: April, 1992*
- *Putting Downsizing in Perspective: January, 1992*
- *Outsourcing Network Management and Operations, 1992-1997, July, 1992*
- *Case Studies in Downsizing, August 1992*
- *Methodologies for IT Downsizing, 4th Quarter, 1992*
- *Methods of Approaching IS Outsourcing, May, 1992*
- *Strategic Assessment of IS Outsourcing, November, 1992*
- *Outsourcing of Desktop Services, December, 1992*
- *IS Outsourcing Market Opportunities, 1992-1997, November, 1992*



Executive Overview

Applications management presents new options to the IS executive, who is so overwhelmed in software maintenance activities, that the executive has little time to develop new applications. It also offers relief to the user department that works by itself, and does not have the resources to develop and maintain the new software applications needed to remain competitive.

A

Conclusions

Currently, applications maintenance dominate the market, but the amount of applications development will increase significantly over the next few years. There are already signs that the distinction between systems integration and applications development is blurring in many professional services firms.

INPUT believes there are indications that applications management vendors are best positioned to participate in the business operations outsourcing market. This market is likely to be a major portion of the outsourcing market by the late 1990s.

B

Recommendations

A natural progression for outsourcing vendors is to develop skills in applications management. The applications maintenance portion can be acquired by obtaining the assets of the client, and the legacy systems that need to be maintained. Other companies acquire software vendors to give them a software development capability. Both of these strategies prepare vendors to take on the responsibility for business operations when a client is ready to turn them over to the vendor. There is already some evidence of a strong trend in this direction for non-IS functions.

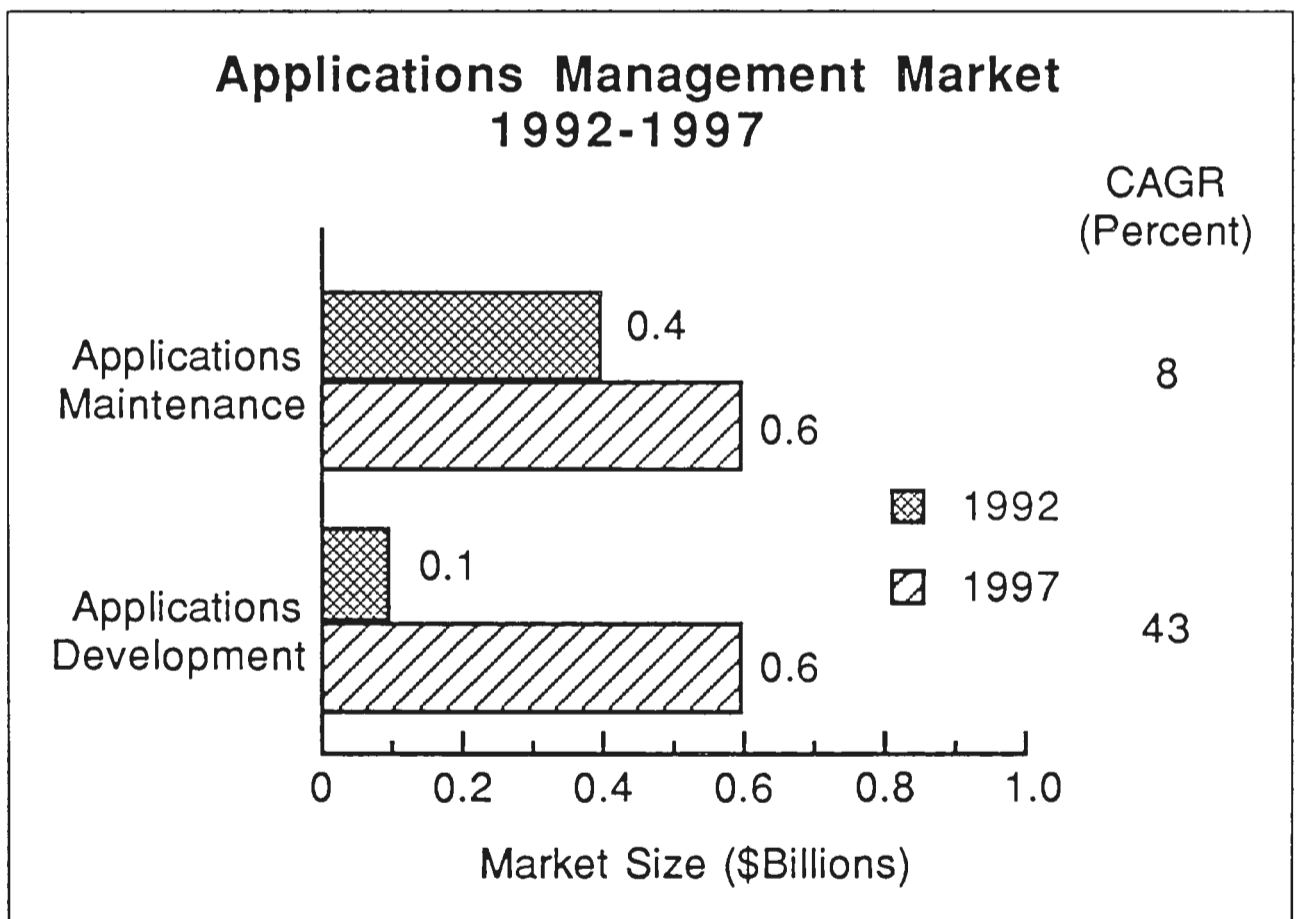
C

Market Characteristics

The reasons why organizations are turning to vendors for applications management are varied. They range from the need to get rid of the tedious and boring job of patching and massaging old, legacy systems, to adopting a new suite of software that is markedly better than what the organization currently uses, but requires technology that the organization cannot support internally. The timing often coincides with the IS organization's decision to downsize its current systems or re-engineer, in some other way, the current IS support structure.

INPUT believes that applications development will grow rapidly as a portion of the total applications management market over the period from 1992-1997. Exhibit II-1 illustrates how the market will change over this period.

EXHIBIT II-1



Transition outsourcing will proliferate in the next few years as more and more organizations change their systems to remain competitive. Transition outsourcing greatly encourages the turning over of applications maintenance to the vendor; at least in the early years. As much as the outsourcing vendors try intensive advertising campaigns, and demonstrate success in the market, IS organizations are still reluctant to turn over their applications management to a vendor. That is not the case, however, when the IS department is already replacing the software. Then, they are much more

comfortable with the outsourcing arrangement. They consider it only as a temporary arrangement. For that reason, a large portion of the applications management is currently known as applications maintenance (see Exhibit II-1 on the previous page), which is associated with a transitional system that is being replaced. Research by INPUT in the U.S. and Europe has confirmed this.

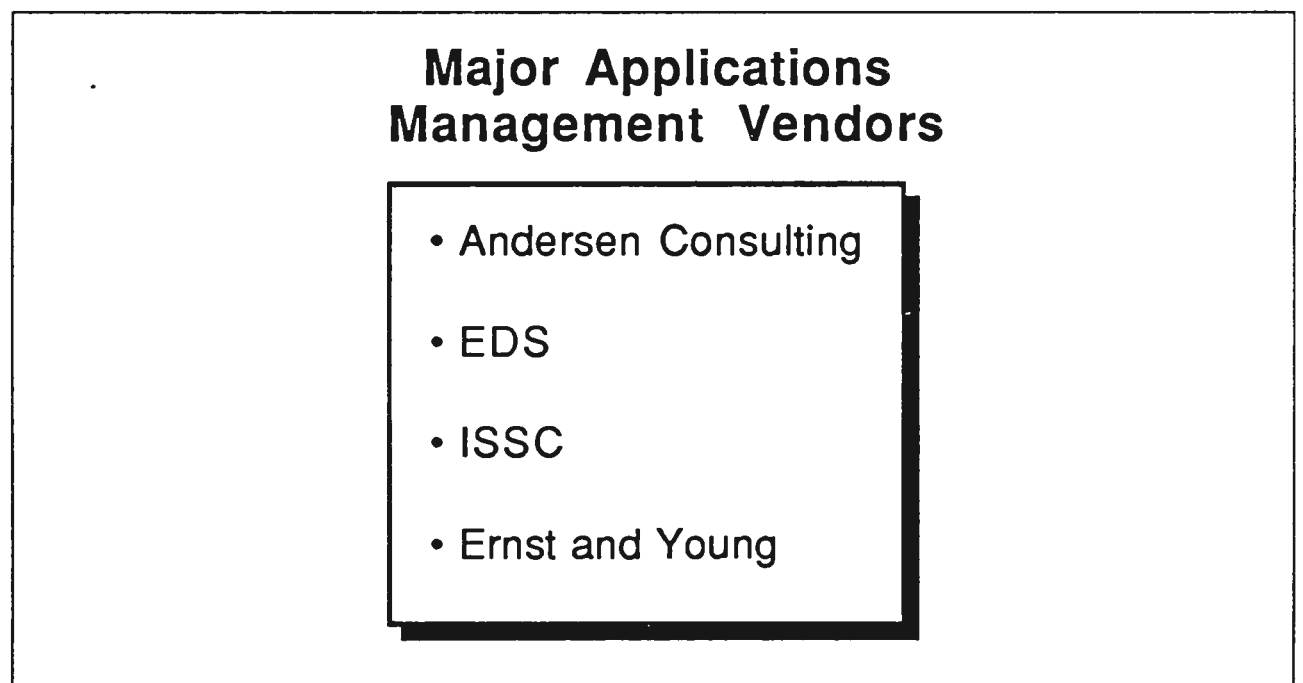
D

Vendor Perspectives

The traditional systems operations outsourcing vendors, performing either platform systems operations or applications operations, increasingly report that there are opportunities for them to take on responsibility for applications software even when there is no need to take over associated processing operations.

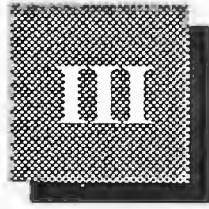
Exhibit II-2 illustrates who the leading vendors are in the U.S. market as perceived by vendors.

EXHIBIT II-2



All vendor respondents quickly emphasized that there is little distinction between a systems integration engagement and an outsourcing arrangement in the area of applications management. In fact, some consider much of the systems development, which INPUT calls applications management, to be a systems integration activity. INPUT will continue to call it systems integration when the developed product is turned back over to the client for management upon completion. However, the continued responsibility for the maintenance of the new software is becoming more of a vendor responsibility. Often the client does not have the skills to maintain new software. In other cases, the support has to be delivered to a dispersed user

base operating in the client/server environment. In either case, the vendor is best suited to provide ongoing support.



Market Characteristics

The market for applications management, in which the vendor is responsible only for the applications software, is emerging as a follow-on to the classical systems operations market mode that INPUT describes as applications operations. This occurs when the vendor has responsibility for the software and data center operations. The reasons for this are discussed below. An assessment is also made as to where it will lead and how much of the total outsourcing market it will represent.

A

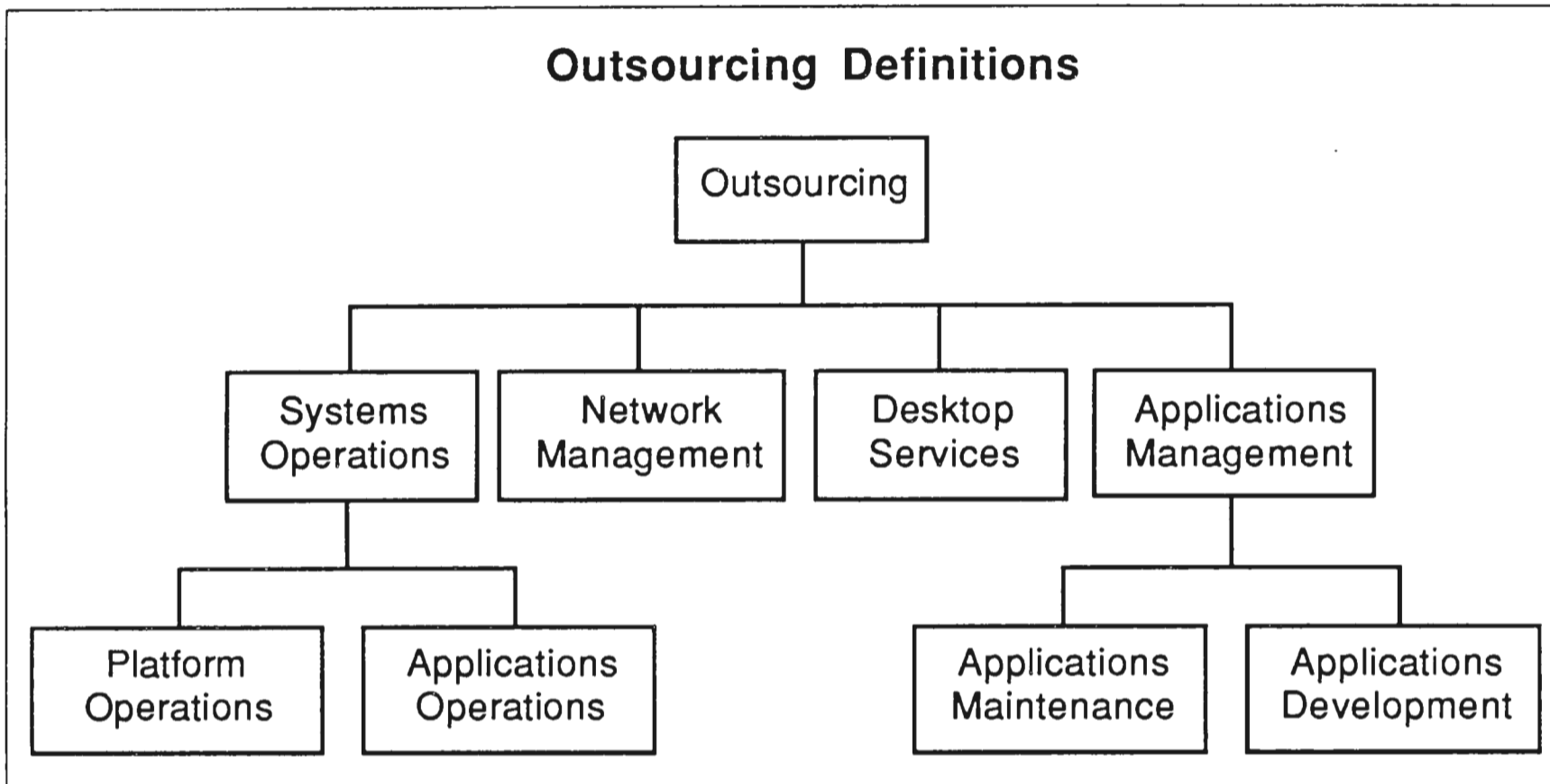
Market Definitions

To clearly assess the developing market for applications management, it is best to start by clearly defining it. Exhibit III-1 is the matrix INPUT uses to identify each type of outsourcing arrangement and to link one to the other.

By identifying outsourcing as the contracting out of all, or a major part of, an information systems function or process to a vendor, INPUT has already focused in on the concept of turning over the process to the vendor. That is the essence of the outsourcing arrangement—that the whole process is now made the vendor's responsibility.

As Exhibit III-1 shows, the classic types of systems operations, platform operations and applications operations, are no longer enough to define the available outsourcing options for IT organizations. Vendors are also taking on responsibility for network management, desktop services and applications management. INPUT's research into outsourcing has produced a report on both network management and desktop services this year.

EXHIBIT III-1



Applications management is further subdivided into applications development and applications maintenance. In applications development, the vendor gains control of the design, development and long term maintenance and enhancement of applications software associated with a business operation. In applications maintenance, the vendor only runs the maintenance of an existing set of applications software associated with a business operation.

To complete the picture, the distinction between applications management and applications operations must be simply drawn. In applications operations, the vendor performs the combination of applications management, the management of the data center and its associated network. In applications management, data center responsibility is not involved whatsoever.

These distinctions must be drawn to allow a clearer definition of each segment of the outsourcing equation within the market, and to see how they will grow and change over time. Though in reality, the relationship between the vendor and the client may take on several of these forms, INPUT distinguishes between them in order to forecast the market more clearly. In fact, the strategy of the successful vendor is to expand participation with the customer over time, demonstrating that the relationship is so effective that the client will turn over more responsibility to the vendor.

B**Market Forecast**

In its earlier report, Strategic Assessment of Outsourcing, INPUT stated that the market in 1992 for applications operations was \$5.2 billion, and that for applications management is \$0.5 billion. (See Exhibit III-2)

EXHIBIT III-2

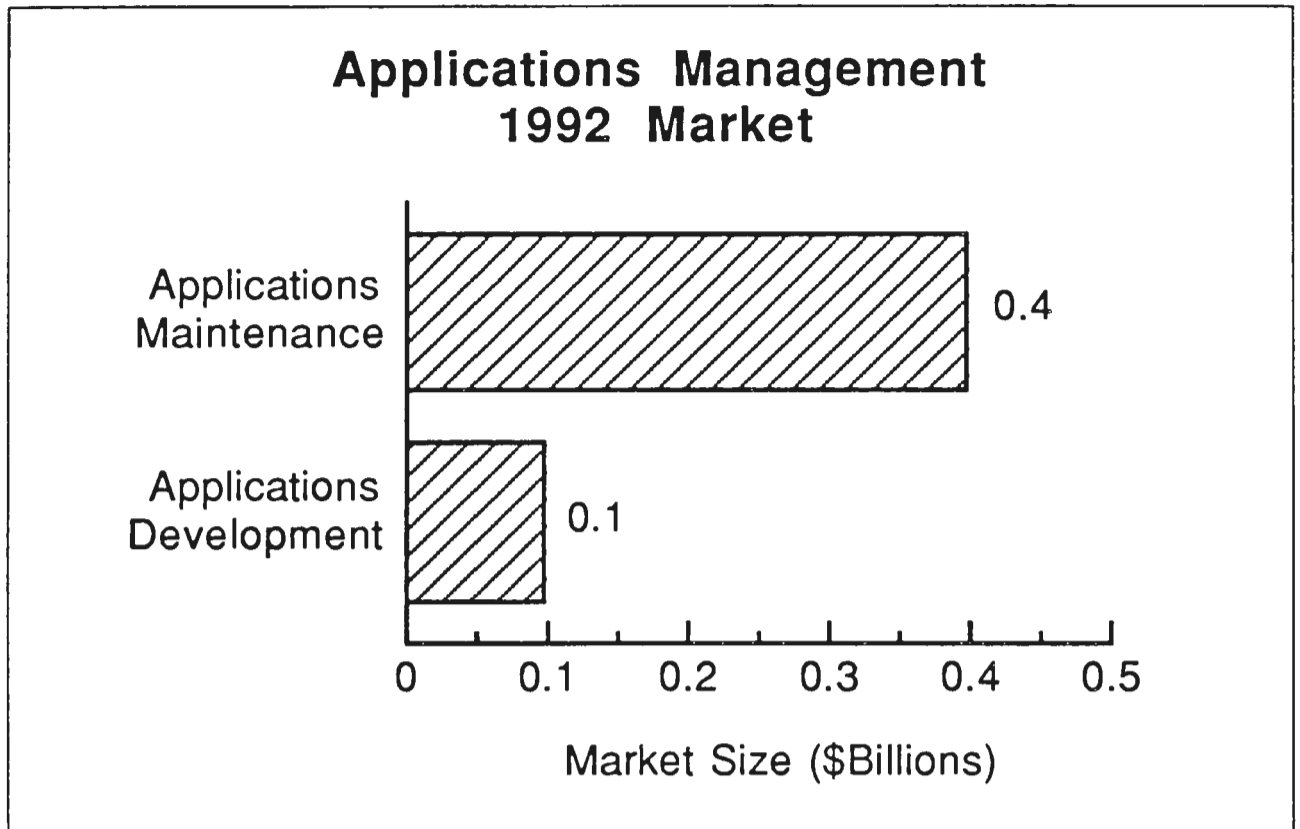
Segment	Market Size (\$ Billions)		1992-1997 CAGR (Percent)
	1992	1997	
Systems Operations			
- Platform	3.9	7.0	12
- Applications	5.2	11.5	17
Applications Management	0.5	1.2	19
Network Management	1.4	3.5	20
Desktop Services	1.2	4.5	30

INPUT stated above that applications management, the smaller of these two markets, can further be subdivided into applications development and applications maintenance.

Exhibit III-3 (on the following page) illustrates the current breakdown of these two sub-modes. This assessment is based on the vendor research conducted by INPUT for this report and may change significantly over time.

The reasons vary as to why organizations are turning to vendors for their applications management. They again range from the need to get rid of the tedious, boring job of patching old legacy systems that is consuming too much IS resources, to the desire to adopt a new software environment that is markedly better than what the client organization currently uses. The timing often coincides with the IS organization's decision to downsize its current systems, or re-engineer in some other way, the current IS support structure.

EXHIBIT III-3



In all these cases, the IS department or the user department, turns over responsibility of the process to “experts.” For example, when the vendor takes over a legacy system to maintain and enhance it, the client’s staff can then be assigned to develop and design much needed improvements to the systems. How can the vendor, whose staff may be more expensive than that of the client, do a cheaper job? INPUT probed vendors for an answer to this question. The recurring response was that the vendor has better management and maintenance tools, and can do that activity much more efficiently than the client. CASE methodology, and refined project management techniques, allow vendor organizations to use more junior staff, or it permits them to further subcontract maintenance work under rigid supervision.

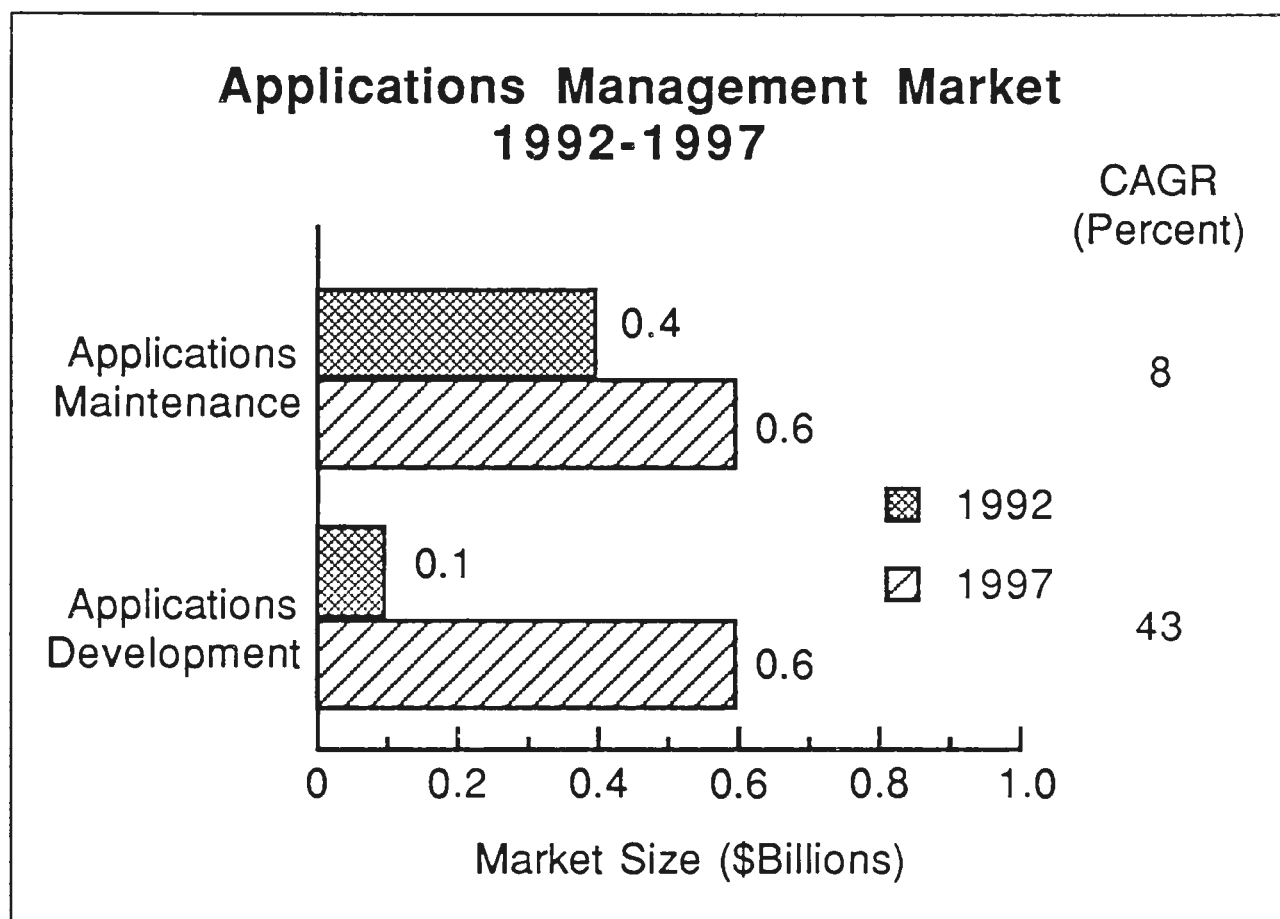
Other customers find their own staffs incapable of developing and maintaining a new system. Knowledge of new technologies and emerging software development methodologies may be absent. The alternative of hiring additional resources, even in this changing market, is not attractive because it may change the overall organization. The outsourcing of the new development to a vendor is a more viable alternative because it preserves the current organization while it allows new ideas and new blood to be instilled into the systems’ design process.

Buyers can turn to a premiere software development organization, or identify a vendor that already has highly regarded software available, which can be tailored to the buyer’s current operating environment with a minimum of change. This phenomenon is particularly true in the banking industry where Systematics, FIServe and Mellon have developed state-of-the-art software. This pre-packaged software scenario is expected to

increase in frequency because of cost pressures and the highly competitive nature of the IS marketplace.

For this reason, INPUT believes that applications development will represent most of the applications management market growth from 1992-1997. Exhibit III-4 illustrates how the market will change over this period.

EXHIBIT III-4



C Impact of Transition Outsourcing

The impact of downsizing on the IS industry is particularly evident in the outsourcing market. Applications management outsourcing has primarily emerged as a distinct, measurable market mode due to the downsizing revolution.

Many IS organizations, and those user organizations that have taken over responsibility for their own IT futures, are currently in the stages of changing their existing systems. This cannot be accomplished in a weekend of idle time. While the new systems are being developed, old systems must be kept running. That involves not only running the old equipment, but it also entails maintenance and enhancement of the old legacy software over an extended period of time, often up to two years.

Organizations are more frequently choosing to turn over the management of their legacy systems to a vendor. When they need to divest themselves of running the old data center, as well as turning over responsibility for the software, then it becomes a case for applications operations. However, in many cases the user organization has the capability to continue running its own data center, but really needs help with software maintenance and enhancement. Outsourcing vendors are more ready to assume this responsibility as their sole outsourcing function. In fact, some vendors would rather do this than perform data center outsourcing because they are better suited to that task.

This process is known as transition outsourcing. It will proliferate in the next few years as organizations change their systems to remain competitive. Transition outsourcing encourages turning applications management themselves over to the vendor. Though the outsourcing vendors continue to saturate the market with advertising campaigns and demonstrated success stories, many IS organizations are still reluctant to turn over the applications software to a vendor. Yet, this is not the case when the IS department is planning to replace the software anyway. Then, they are more comfortable with the outsourcing arrangement and consider it only a temporary arrangement while new software is developed. For that reason, a large portion of the applications management is currently applications maintenance (see Exhibit III-4 on the previous page), associated with a system in transition that is being replaced.

D

Longevity of Legacy Systems

The legacy systems previously mentioned are most likely to be replaced as the re-engineering microscope is applied to their functionality. They will continue to exist as operational systems until new systems are developed, beta-tested and installed throughout the organization. This process is estimated by respondents to take from six months to three years. For that reason, the expected life of applications maintenance contracts for these types of systems are generally short-term. The typical profile of an application management contract is illustrated in Exhibit III-5.

Although it is difficult to document, there is a prevailing attitude that many so-called legacy systems—those that have been inherited from older systems, converted from another generation of hardware, or written in an obsolete code—will be here for a long time. As a result, INPUT tried to identify characteristics of legacy systems that will become “institutional” systems. They will be systems that will not go away once they have been turned over to a vendor in a transitional outsourcing arrangement.

EXHIBIT III-5

Profile of a Typical Application Management Contract

- Value \$2 million over three years
- Covers all commercial applications
- Cobol predominant language

Institutional systems are of two types:

- **Infrequently used systems** - These are the software applications that are only used occasionally, for annual report purposes, special human resources reporting purposes, or for seasonal analysis. Most organizations have them. These applications will generally be on the list to be re-engineered. They often get removed from the conversion list as priorities change. Eventually, no resources are available to apply to redesigning these low priority systems. By then, it will probably be with the outsourcing vendor.
- **History dependent systems** - These old systems search and retrieve data from files that have been collected over time. They contain historical data that is still occasionally retrieved for actuarial or other analytical purposes. Such systems are particularly prevalent in public sector agencies and the insurance industry. Many of these systems will be allowed to continue, although new object-oriented software will make the old data more accessible.

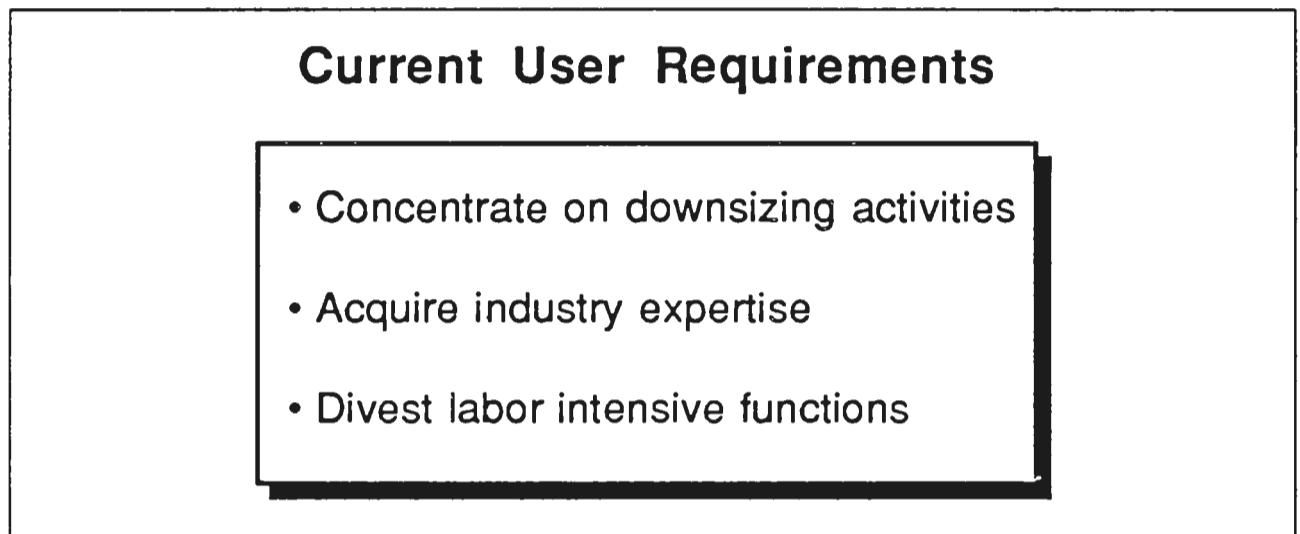
Another characteristic of institutional systems is that they tend to require large mainframes and are served by data base machines in a downsized client/server environment.

Vendors and users agree that institutional systems may remain the domain of outsourcing vendors long after the majority of the legacy systems are converted and have been replaced by new, more effective software in downsized environments.

E**User Requirements**

INPUT looked at the user needs to identify the drivers for application management services. It soon became evident that current user requirements are evolving into a new set of requirements. For that reason, current requirements are first identified, then future requirements are set forth. Exhibit III-6 summarizes the current user requirements.

EXHIBIT III-6



Much of the motivation for using a vendor to do the application management function is to release the internal IS staff for the development of a new system. As organizations seek to downsize from existing platforms to more distributed client/server environments, they find that they must maintain old systems while the new ones are developed. Since the activity of maintaining a legacy systems generally consumes over 50% of the staff time, it is natural to target this activity for outsourcing. Much of current user needs for application management is to maintain existing systems.

INPUT's European study on applications management found that users still seem comparatively reluctant to transfer new systems development activities to an outsourcing vendor. However, users of application maintenance management services show a high level of propensity to outsource additional applications maintenance management. They also show high levels of propensity to outsource network management and services. This may reflect their downsizing to distributed systems and then finding that their IS departments require additional assistance to manage the technically complex IS infrastructures on which their systems are now based. U.S. data in this area were inconclusive.

Sometimes, the user organization does not have the talent necessary to implement a new, downsized system, and turns to a vendor for expertise.

This is particularly true in user organizations that take over responsibility for their own IS destinies. User organizations do not want to retain system design and development staff in their head count. They prefer to let experts provide these functions. Outsourcing of applications development is a very good solution in this case.

In both of the above scenarios, the functions being outsourced are viewed by the user as labor intensive. In the first case, transferring applications maintenance, and the staff associated with it to a vendor, can reduce the IS staff requirements by at least 50%. The function is moved to a vendor who claims that they can do it more efficiently. The net result is often a cost reduction for the client.

The labor intensity of new applications development is of a different type. For the typical new system development and implementation project, a development staff will be required for a relatively brief time, then only a much smaller maintenance staff needs to be assigned to the client for routine upgrading. Outsourcing has always been a viable option for activities requiring peak loading of resources, so it can also be used in this context. The distinction must be maintained between outsourcing new applications and a systems integration project in which the vendor develops the new application, then turns it back to the client upon implementation. In an outsourcing arrangement, the application remains the responsibility of the vendor after implementation, a situation particularly attractive to a user department with no built-in IS expertise.

EXHIBIT III-7

Future User Requirements

- Acquire industry expertise
- Maintain data base requirements

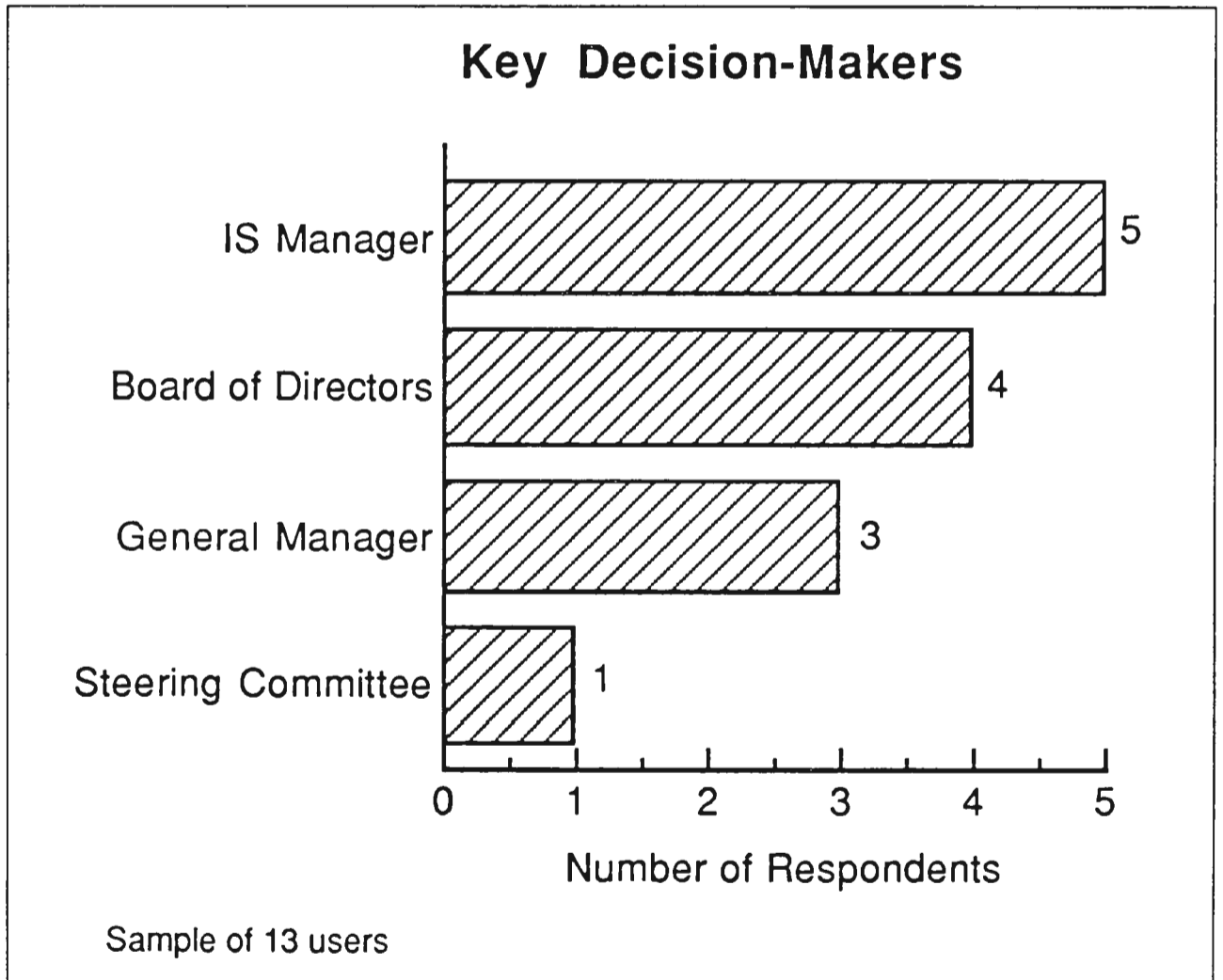
Over time, more legacy systems based on old platforms using obsolete codes will be eliminated; thus, reducing the proportion of transition outsourcing going on. At the same time, more user departments will assume responsibility for their own IS destiny. User organizations generally place more emphasis on their core business functions than on IS activities to support their missions. A natural opportunity for outsourcing vendors exists to supply applications management functions as more user organizations control their IS dollars. Vendors should respond by staffing a high level of consultants within their organizations and by building

increasingly robust, “tailorable” applications software to meet specific industry needs.

Another impact of the downsizing trend is that the organization’s central processing platform will be converted to a data base machine shared by all users. The typical configuration will find client/server clusters distributed throughout the organization, geographically dispersed, occasionally tapping a central repository of corporate data. This type of central activity is best managed and maintained by an outsourcing vendor with extensive data management procedures in place that can be leveraged by a number of user organizations. Health insurance data, and driver registration data, are two good examples of data repository applications

If applications management were sold as a standalone service, then IS management would be largely responsible for the purchasing decision. However, this is not the case, as is shown in Exhibit III-8.

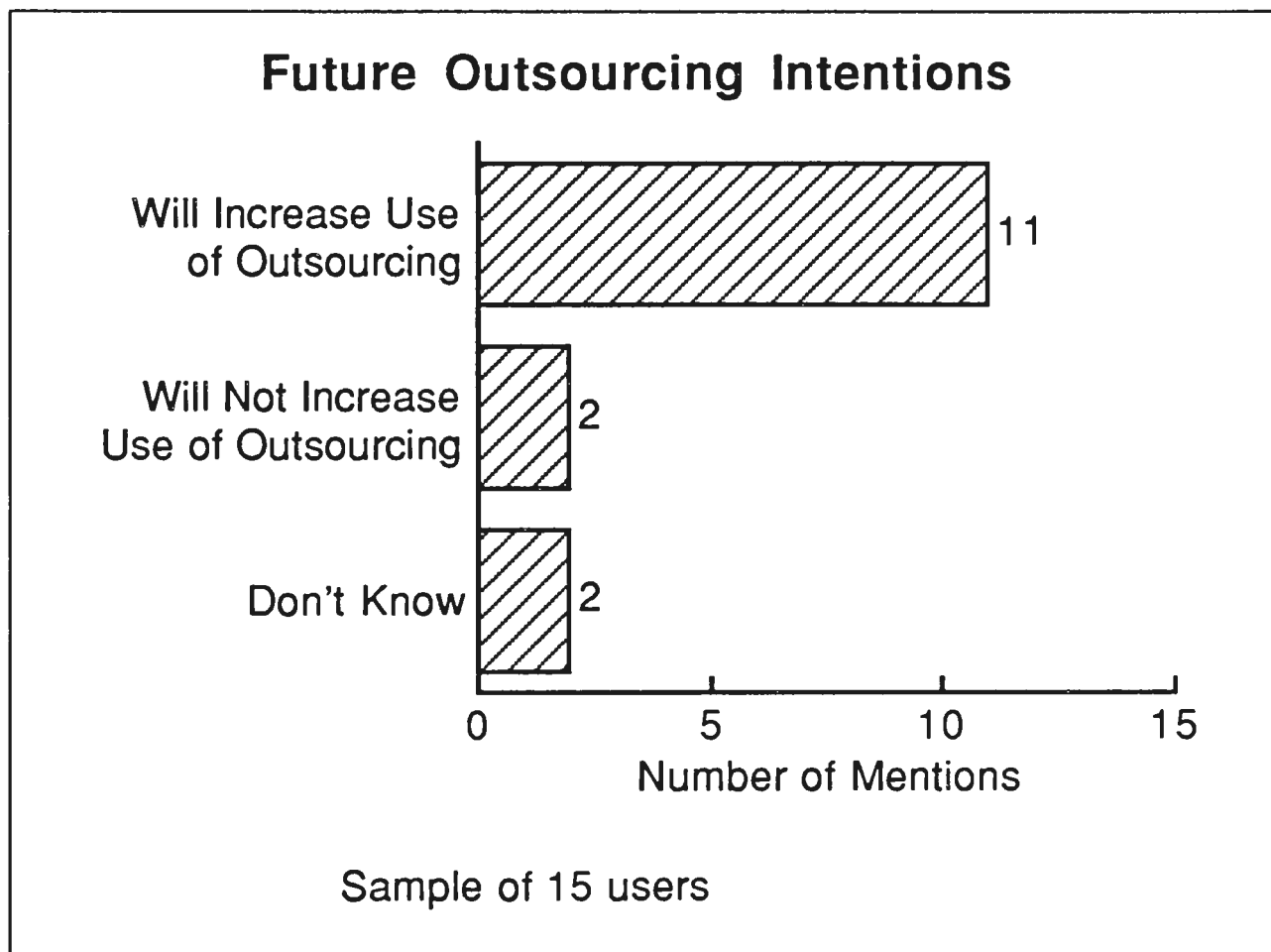
EXHIBIT III-8



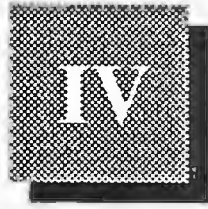
In related research conducted by INPUT in the U.K., 60% of the key decision makers were senior executives and not the organization’s IS management. In only those instances in which application maintenance services were supplied, the key decision-maker was the organization’s IS management.

Users future buying intentions are also encouraging for vendors. Exhibit III-9 lists the future outsourcing intentions of respondents, and shows that approximately 75% of these users will increase their usage of outsourcing over the next few years.

EXHIBIT III-9



(Blank)



Vendor Perspectives

Traditional systems operations outsourcing vendors, either platform operations or applications operations, increasingly report that there are opportunities for them to take on responsibility for applications software when there is no need to take over associated processing operations. Some of these vendors are now ready to take on this challenge. Others that are more attuned to running data centers, find it more difficult to assume that responsibility. New vendors may well shortly appear in this segment of the outsourcing market.

A

Leading Vendors

As mentioned above, the applications management segment of the outsourcing market is still only a small portion of the total outsourcing market. Exhibit IV-1 illustrates who are considered leading vendors in the U.S. market from the vendors' viewpoint.

Andersen Consulting has traditionally been regarded as ready to do applications management and often reluctant to handle applications operations. That is, they are more interested in the applications maintenance and development work than in running data centers. However, Andersen will provide all services required for certain clients. The platform operations portion of the contract is often only an interim, transition outsourcing arrangement while Andersen builds the new systems for the client.

Andersen sees their future in outsourcing of business operations similar to what they are performing for BP Exploration in the U.K. They view the applications management route as one step closer to business operations. INPUT believes that applications operations is the step prior to business operations outsourcing because the applications operations vendors develop an intimate knowledge of the clients' application software in the process.

EXHIBIT IV-1

Major Applications Management Vendors

- Andersen Consulting
- EDS
- ISSC
- Ernst & Young

EDS has been particularly strong in the platform operations and the desktop services area. If a client wants it, EDS has resources to do the applications management function, but they do not have any reported major activity in this area. Other applications management vendors, however, view them as a serious potential competitor. Their most recent contract with Bethlehem Steel, in which they handle all processing and applications, is closer to business operations outsourcing than it is to applications management or applications operations.

ISSC has the resources to take on applications management, though they traditionally have been involved in many platform operations outsourcing contracts. The renewed emphasis within ISSC to be the major systems integrator for IBM will enable them to take on purely applications management contracts. This pattern is likely to emerge as a part of ISSC's strategy because ISSC's current internal competition for SI engagements, the technology centers, are less likely to enter into long-term contracts.

CAP Gemini U.S. is another potential player in this segment of the outsourcing market because their parent, CAP Gemini Sogeti, is currently the leading applications management vendor in Europe. CAP Gemini Sogeti is likely to export a successful strategy to the U.S., particularly because their professional services business is not growing rapidly enough.

Ernst & Young is poised to enter this phase of the outsourcing market, even though they are not yet a major player. Their organizational structure makes it more likely that they will assume responsibility for major outsourcing contracts over a long period of time. They are not yet identified by other vendors as a major player, but all recognize the potential for their entry through some systems integration engagements.

All vendor respondents quickly emphasized that there is little distinction between a systems integration engagement and an outsourcing arrangement in the area of applications management. Some, in fact, consider much of the systems development, which INPUT calls applications management, to be a systems integration activity. INPUT will also call it systems integration when the developed product is turned back over to the client upon completion for management. However, the continued responsibility for the maintenance of the new software is becoming a vendor responsibility more often. Either the client does not have the skills to maintain new software, or the support has to be delivered to a widely dispersed user base operating in a client/server environment. In either case, the vendor is best suited to provide ongoing support.

User respondents are less clear as to who they would choose as a vendor, stating simply that their criteria are a function of their needs. Chapter III conveys that their needs usually center around a lack of technical expertise. They look to a vendor who can provide that skill in the most painless way. Often they are familiar with a vendor due to previous experience with that vendor, or because the vendor is a recognized expert in a particular industry or technology.

B

Vendor Strategies

Exhibit IV-2 on the following page illustrates basic strategies that vendors apply to the acquisition and successful completion of applications management arrangements. As in the forecast section above, the arrangements divide themselves conveniently into two categories:

- Applications Maintenance in which the vendor takes over the old, legacy system from the client.
- Applications Development in which the vendor is responsible for the development of new applications software for the client.

The challenge of applications maintenance versus applications development is different, causing the vendors' approaches to be different. When dealing with a client who wants to turn over legacy systems to the vendor, the vendor will often be asked to take over part or all of the client's staff. Vendors recognize that they may not acquire highly-qualified staff, but believe that they can be retrained to be more productive.

In some cases, the acquired staff is of superior quality. The CSC/General Dynamics contract is not a classic applications management contract, but rather an applications operations contract. Yet, it is widely reported that the systems and programming staff acquired by CSC in the deal has been a valuable asset to CSC in other activities.

EXHIBIT IV-2

Vendor Approaches

- Acquire support staff for legacy systems
- Develop new systems with own people
- Provide change in management process

When applications development of new systems are a primary consideration, the impetus on the part of the buyer to enter the arrangement is often to acquire talents they do not have in-house. In this case, the vendor supplies the staff to do the development work. Furthermore, the vendor is also likely to keep the applications management contract for the long-term because there are no systems to phase out.

Many of the vendor respondents mentioned that they see themselves as change managers in the application management process. Whether the vendor is managing a system that is intended to be replaced by a new system being developed by the internal IS staff, or if the vendor is retained as the developer of the new systems, there is a change process to be managed. The change process requires coordination with client personnel, retraining, documentation and out-placement in some cases. As the client organizations become more comfortable with the vendor's assumption of applications management responsibility, they turn more to the vendor for help and guidance in managing the change process itself.

C Conclusions and Recommendations

The vendor strategies that are evolving in response to client demands point the way to vendors that want to participate in this segment of the outsourcing market. The current market is mostly applications maintenance, but the amount of applications development will increase significantly over the next few years. There are already signs that the distinction between systems integration and applications development is blurring in many professional services firms.

INPUT believes there are indications that the applications management vendor will be best positioned to participate in the business operations outsourcing market. This is because that type of vendor will already possess extensive knowledge of the client's business process by virtue of

developing and maintaining the applications software. This market is likely to be a major portion of the outsourcing market by the late 1990s.

Those vendors that actively participated with clients in applications development over the years are likely to be candidates to take over entire business operations for those same clients. They will, after all, understand the client's business as well as many of the client's internal staff.

Exhibit IV-3 below summarizes the recommendations for current outsourcing vendors, based on INPUT's observations of what is happening in the applications management segment of the outsourcing market.

EXHIBIT IV-3**Recommendations**

- Expand outsourcing offerings
- Look for applications development work
- Prepare for business operations outsourcing

Those vendors that are still primarily platform outsourcing vendors will not fully benefit from the downsizing phenomenon unless they improve their applications management skills. In the short term, there are many transition outsourcing opportunities that only require platform outsourcing. These are, by nature, transitory and are likely to last one to three years. They may provide excellent sustenance for the outsourcing vendor. Yet, to be viable in the long term, the vendor must also provide application management services to the client. It will no longer be enough to run a data center for the client in a few years.

A natural progression for outsourcing vendors is to develop skills in applications management. The applications maintenance portion can be acquired by obtaining the assets of the client along with the legacy systems that need to be maintained. However, application development resources are more likely to come from sources other than client assets. In order to walk before you can run, some vendors need to form alliances with other vendors. Genix, primarily a platform operations vendor, has formed an alliance with CTM, which has brought the company some manufacturing expertise that can be leveraged into an applications operations array.

Other companies have acquired software assets. SCT recently bought several companies specializing in higher education, utilities and local government industries software. This has already been productive for them in outsourcing contracts in the higher education market.

Both of these strategies will prepare vendors to take on the responsibility for business operations when the client is ready to turn them over to the vendor. There is already evidence of a strong trend in this direction in non-IS functions. The Medicaid and Blue Cross outsourcing arrangements that EDS and CSC currently hold are close to the management of business operations. More responsibility is expected to be turned over to vendors in the future. Some vendors are ready now. Others need to take major steps to prepare themselves.

