Outsourcing: Buyers' Perspectives

Paper 1

INPUT®

San Francisco • New York • Washington, D.C. • London • Paris • Frankfurt • Tokyo

The information systems (IS) outsourcing revolution is spreading. IS expenditures are already over $12 billion and may exceed $40 billion in five years: Some of the world's largest companies are participating. This paper is one of a series that provide a strategic assessment of the IS Revolution:

- Outsourcing: Directions and Opportunities
- Outsourcing: Buyers' Perspectives
- Outsourcing: Contracting and Implementation
- Outsourcing: Vendor Characteristics

This series examines the rationale for IS outsourcing; the different types of IS outsourcing (it does not just apply to computer centers!); and the new opportunities in transition management, desktop services, and business operations outsourcing.

Published by INPUT 1881 Landings Drive, Mountain View, CA 94043-0848 U.S.A.

For additional information, please contact INPUT at tel. (415) 961-3300, fax (415) 961-3966

Outsourcing: Buyers' Perspectives

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 1).

EXHIBIT 1

IS Outsourcing Definition

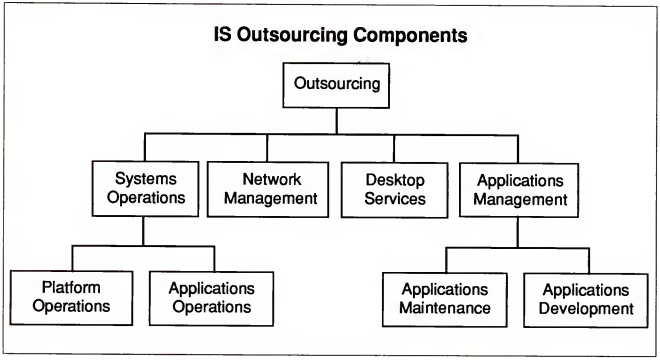
Information systems (IS) outsourcing is the contracting of an IS process or function to an external vendor on a long-term (1+ years) basis.

The various IS outsourcing segments are, as shown in Exhibit 2,

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 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.

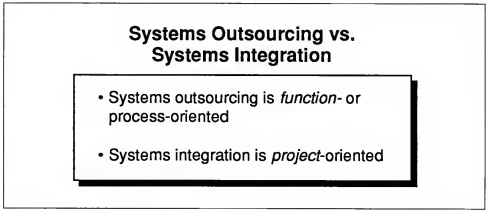
4. Applications Management - The vendor is responsible for the development and maintenance of all the applications systems a client uses to support a business operation.

- *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 other than the contract period. Systems operations and other forms of outsourcing are process-oriented, i.e., there is a continuing relationship. (See Exhibit 3.)

EXHIBIT 3



Driving Forces for Use of Information Technology

The primary forces having an impact on larger organizations are well chronicled. As shown in Exhibit 4, today's business must deal with globalization, specialization, a rapid pace of change, and integration, if it is to succeed. Each of these trends is reshaping industry and business and is directly impacting information technology strategies and programs.

- Few industries are free today from international impacts. Market barriers are being removed in all corners of the globe, creating new opportunities and permitting the entry of numerous new competitors. Today's information systems (use of information technology) strategy must

  - Provide international access
  - Use international standards
  - Support international operations

- Competition, the tight economy, and restructuring problems are causing senior management to focus on the core of an organization's capabilities. The result is a more specialized and focused organization that emphasizes what it does best. Not only are organizations limiting the breadth of their mission, they are focusing on the functions most critical to that mission. If an automobile company does not need to manufacture radios to maintain its product differentiation, it also does not need to operate its own central data center. Information systems programs must:

  - Concentrate on strategic systems that support the critical functions

  - Provide the most cost-effective methods of development and operation of IS processes at all levels.

EXHIBIT 4

Information Technology Driving Forces

Trends	Organization	Information Systems
• Globalization	International opportunities and competition	International processing requirements
• Specialization	Core business and functions	Strategic systems
• Pace of change	Structural change	Rapid response and deployment
• Integration	Intraorganizational relationships	Intra- and inter-organizational systems

- The pace of change in the world has never been more rapid. Certainly, information technology has been a factor in speeding up the pace, yet it remains the primary tool to help management deal with it. In the 1970s it was acceptable to take three to five years to build a major new system. Today it can be assumed that in three years the priorities will be different, the organization will be structured differently, and it is likely the system will not fit.
  - Today's IS program must be prepared to react rapidly to unplanned requirements, large or small.
  - Doing the routine work is important, but doing the unplanned is the measure of success today.
- Competing on a global basis, specializing as a source of competitive strength, and responding rapidly to change all drive today's critical requirement to integrate all aspects of an organization. Since the core of integration is the flow of information, the impacts on the IS program are extensive.

- Internally, the information network must support the flow of the organization. Today's applications are described as large, complex, integrated, and cross-functional—but new applications are simpler, faster, and more controlled by users.

- Externally, today's IS program must create interorganizational systems. The introduction of electronic data interchange (EDI) systems has won more than one IS manager a deserved promotion!

No large business or organization is free from unexpected, significant change today. Mergers, acquisitions, divestitures, leveraged buyouts, downsizing (reductions in work force), and re-engineering are all commonplace. These occurrences introduce a requirement for change into the information systems strategy that was not common just a few years ago. Change is a strong element of the equation that is driving outsourcing within the information systems arena today.

IS Organization in the 1990s

For years INPUT has been researching and identifying shifts in the role and priorities of information systems and the IS executive. Over the past three years, that research identified significant shifts resulting from the driving forces listed above and the explosion of information technology.

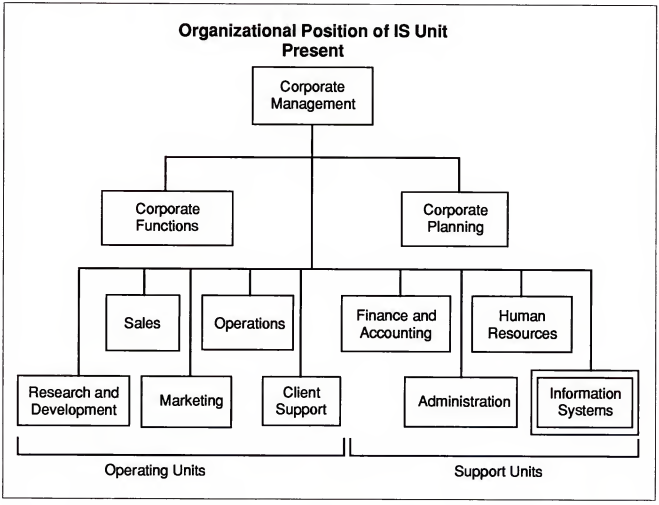
The impacts of these shifts are now being realized through such decisions as those made by Kodak, General Dynamics, and United Technologies regarding the outsourcing of their IS functions; manufacturers and banks hiring a single vendor to provide applications software, data, and network operations, and all maintenance; and IS executives saying publicly, "I don't ever want to manage a data center again."

However, a more fundamental question must be asked, "Should a separate IS organization exist at all in the 1990s?"

The IS organization has consistently grown in size, status, and cost over the last 30 years. It is now a fully recognized service unit reporting to the senior executives or, at a very high level, to a chief financial or administration officer.

A typical organization structure is shown in Exhibit 5. Various aggregations may be made by geography or product line depending on the organization, but essentially the IS department is outside the operating units' control. It is almost always a cost center.

EXHIBIT 5

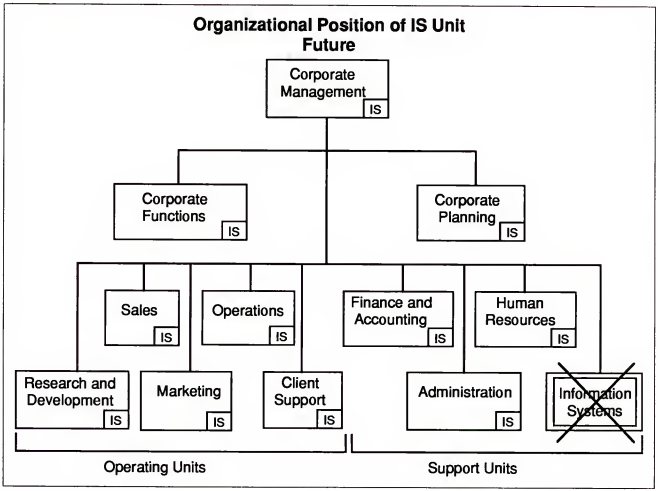


Yet in the 1980s, we consistently heard how important information systems were to the success of the organism as a whole. Concepts of "mission—critical systems," "systems for competitive advantage," etc., were introduced and adopted in large part by organizations. As executives in operating units come to believe these messages, they naturally seek more influence and control over "their" systems.

Another trend that became obvious in the 1980s was the increasing difficulty of separating computer systems from people systems. With network systems and more rapid information flow, the integration of people with their computer/communications support infrastructure has become symbiotic in operations as well as in development. Computer and communications systems by themselves accomplish nothing: they have to work with people to be effective.

A consequence of these two trends could well be the disappearance of the separate IS unit as we know it today, resulting in an organization structure depicted in Exhibit 6.

EXHIBIT 6



Operating, support, and corporate units will take, and indeed are taking, back management of the development and operation of their applications. The only remaining separable tasks are those relating to interfaces among systems/units, planning, and corporate control. But even here, these functions can be absorbed in other service units fairly effectively.

After all, interface management, for example, primarily relates to timing, definitions, action reporting, contingency planning, and information needs; all these activities have to be coordinated anyway by units other then the IS department. If all we are considering are IS technical interfaces for software, network protocols, computer standards, etc., then the rationale for a separate IS department is eroded even further. These decisions could and probably should be made by the IS people within the

units involved, not some expensive internal bureaucracy. Certainly the corporate assets need to be protected, but the corporate view can well be put by corporate planning and/or finance units.

If expert, objective opinion is needed it can be bought. Thus, the 1990s may well see the disappearance of the IS unit and the integration of IS functions with the operating, support, and corporate units in the organization.

There does exist a prior example of a similar evolution; that of electric power in the 19th century.

Analogy between Electric Power in the 1800s and Computer Power in the 1900s

In the industrial revolution, a power plant was built for each factory. This process was often carried over into other buildings including mines, government buildings, large houses, etc. These plants were used to initially provide power for work; heat, light, and ventilation came later. In many cases, gas was used for heat and light.

The plants operated on water power or on steam. Power distribution within a building was by means of cumbersome networks of pulleys, belts, axles, gears, etc.—in other words, mechanical means.

When electricity was discovered and applied, plants converted to it. However, there was initially no way to apply the right amount of power to each task (stepping down). So there was a combination of mechanical and electrical distribution in plants—but essentially still one central source. Characteristics of electric power use in the 1800s are shown in Exhibit 7.

EXHIBIT 7

Electric Power Evolution in the 1800s

• Mid-1800s	Plants/buildings/estates had own electric power generators
	Important separate unit
	Applications were lighting and work
	Usually driven by steam
	No transmission capability
	No fractional motors
	Mechanical local distribution
	Competing "protocols"
• Late-1800s	Transmission grids became available
	Standards emerged (AC over DC)
	Fractional motors applied appropriate power to tasks
	Dedicated power units disappeared a) generators b) organizations
	Local-area networks (LANs) emerged

Because power could not be transmitted, it was thought that the cities where the fuel for the power units was located would grow substantially as factories and the supporting infrastructure were built there. Thus at one time in the 19th century there was a major argument as to which would become the largest city in the world: Buffalo, New York, with its access to hydro power from Niagara Falls, or Liverpool, England, which was on top of the world's largest known coal deposit!

As the requirements to distribute electric power to users became more pronounced, the need for transmission grids and standards grew. The choices in standards were not only between AC and DC distribution but also involved the number of cycles and voltage to be used.

Once these grids and standards became established, the need to have a power unit for each geographic unit disappeared. Plants could be freely moved. Eventually both Buffalo and Liverpool declined into secondary cities. Power management in an organization became an administrative function: in some cases, such as in an aluminum plant, an extremely important one.

Also, fractional motors allowed power to be applied to individual tasks from local networks.

Consumers, whether business or individuals, bought electric appliances with motors suitable for each task. The use of electric power became integrated into everyday functions of business and working life.

One can look at the emergence of the use of computer power since 1960 in an analogous manner as shown in Exhibit 8. Central power units grew ever larger through the 1970s and 1980s. However, in the 1980s we saw the emergence of the "fractional" motor of the information systems industry, the microprocessor or microcomputer. This enables the effective distribution of power in the amount needed to the point-of-work (POW).

EXHIBIT 8

Electric Power and Computer Power Analogs

Electric Power	Computer Power
Initially standalone generators	Initially standalone data centers
Standards (AC or DC) evolved	Standards evolved
Emergence of transmission grids	Emergence of networks
Step-down motor applied power to POW*	Microprocessor applied power to POW*
Provided physical illumination	Provides information (intellectual illumination)
Electric power application eventually absorbed by users	Computer power application eventually absorbed by users

*POW = Point of Work

Telecommunications networks that enable these POWs to be connected have also emerged. These networks provide interfaces between nonstandard devices of various power as did electric power networks. Just as transmission grids enabled widespread use of lighting, so computer networks enable widespread use of information.

The analogy can be drawn further.

Initially the money to be made in the electric industry was in building electric generators for factories and other buildings. The utilities (electric power generating and transmission) companies then started to become larger customers for the manufacturers but also drove them out of the generator business.

The real money then was made in the application devices used for the myriad tasks to which human ingenuity has applied electric power. This is not so much in the small electric motors themselves but in the whole devices, e.g., ovens, drills, vacuum cleaners, etc.—in other words, applications.

In the computer industry, initially the money was made in the mainframe business. Now increasingly, profit is in the services and products that provide application of computer power directly to POWs. As with the fractional electric motor, there is not so much profit in the microprocessor itself, the "engine" for these devices.

Of course, the analogy can be drawn too far. There are substantial differences as shown in Exhibit 9.

However, electric power has been perhaps the most significant "driving force" in the growth of our civilization in the 1900s. Computer power may well be the most significant "driving force" in the growth of our civilization in the 2000s. Therefore, an examination of the evolution of electric power and its use can be valuable in predicting what will happen to the computer industry. Perhaps the computer utilities are already here: EDS, ISSC, etc.

EXHIBIT 9

Electric Power and Computer Power Differences

- Electric power works with physical, tangible things
- Computer power works with intellectual, intangible things
- Application devices for electric power are physically driven
- Application devices for computer power are software, intellectually driven
- Electric power network is a one-way consumption system
- Computer power network is a two-way flow of information
- Electric power utilities were heavily regulated
- Computer power "utilities" are nonregulated
- Electric power "standards" varied by geography
- Computer power standards will be global (?)
- Electric power requires huge generating facilities and expensive physical distribution capabilities
- Computer power requires ever smaller and cheaper generating facilities and transmission capabilities
- Electric power is physically dangerous
- Computer power is intangibly dangerous

Role of the IS Organization in the 1990s

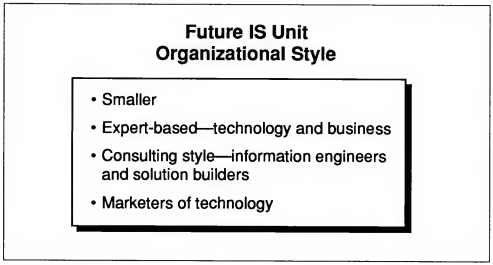
IS organizations (if they continue to exist) must adopt a significantly different style for the 1990s. As Exhibit 10 suggests, the IS organization of the 1990s must be

- Smaller, thus more flexible and responsive

- Expert-based, both in technology and the business
- Organized as consultants helping others to tap the benefits of information technology
- A promoter of information technology, not necessarily the implementer

The real job is to get the maximum benefit for the organization from information technology, both short and long term, by whatever means are available.

EXHIBIT 10



The primary roles of the IS function are described in Exhibit 11. IS management cannot ignore the more operational aspects of the information systems process, but with open-minded use of today's vendors' capabilities, they can switch the balance of their efforts in favor of strategy, architecture, verification of implementation, and the equipping of users.

- *Strategy* - This has always been an IS function, but not one that has been done well in many cases. It simply has not had time. Without a defined evolutionary strategy, new technology can't be assessed and appropriate choices made. Today there is nothing more important than identifying the next strategic information technology alternative.

- *Architecture* - Integration can't be accomplished without a technology plan or architecture. With an architecture it becomes easier to consider outsourced alternatives and new technologies, and it is possible to address unplanned, major requirements.

EXHIBIT 11

Primary Roles of IS Unit

Role	Description
Strategy	Linking information technology to business objectives
Architecture	Providing the technical infrastructure
Contract/Project Management	Overseeing the execution of major efforts
Organizational Behavior	Providing the people skills and environment for IT use

- *Contract Management* - Getting things done on time and on budget has not been a strength of IS units—yet today, more than ever, it is a requirement. IS vendors have learned how to do this, and IS units can learn from them. If the management skills are in place, then who performs the work is secondary to being sure it is performed properly. The vendor can manage the project and the IS unit can manage the vendor (or contract).

- Organizational *Behavior* - Today everyone is a "hands-on" user of information technology. From the executive suite to the factory floor, work patterns are being changed by information systems and their use. As the pace quickens, so does the requirement for behavioral support. Someone has to deal with the behavior and training aspects of IT. Who better than the IS function? It is now a full-time activity.

Successfully performing these four roles can increase the positive impact of information technology on the organization.

Information Systems Strategy and Outsourcing

1. Activity vs. Control

One way for the IS unit to consider outsourcing in a balanced manner is to tie it into the information strategy of the organization. In Exhibit 12, the activity of the IS unit has been divided into four elements.

EXHIBIT 12

IS Unit Activities and Outsourcing

Information Systems Network	IS Activity			
	Plan	Build/ Create	Operate	Maintain
• Architecture and strategy	IS Unit	→		→
• Computer/ communications	↓	←	Vendor	→
• Systems software	↓	←	Vendor	→
• Transaction applications	↓	←	Shared	→
• Decision applications	↓	←	Shared	→

- Planning and the elements of architecture and strategy should always remain within the purview of IS. They form the basis of control and, to the truly capable IS executive, are all that must be performed internally to meet the challenges of the 1990s.

  However, the IS unit should involve vendors in all phases of this activity so that the implementation activities are handled economically and effectively. The days of the IS unit doing all the planning, then telling the vendors, "Do this," are over.

- Vendors build and maintain the computers, communications facilities, and systems software. The renewed interest in systems operations/facilities management is increasing vendor involvement and control over operation and maintenance of this element.

- Through the extensive use of applications software packages and because of the push towards systems integration, the vendor's role in applications is expanding. Either a vendor or IS can effectively build, operate, and maintain these elements of today's complex information network. However, the trend is to increasing use of external suppliers because of availability and costs of required skills

IS management should use this structure to evaluate forthcoming key programs. One result will be an assessment of vendor alternatives for more major programs. A second result could be better overall performance of the information systems function.

2. Impact of Various Types of Outsourcing

Each of the outsourcing and systems management categories in Exhibit 13 is classified by the value of impact it can have on the business relative to operational, tactical, and strategic activities.

- An applications operations vendor can provide advanced applications software while assuming full systems operations responsibilities, thus allowing IS management to focus on the goals of the business. This is proving to be an increasingly common approach in the banking industry, for example. The outsourcing decision can have significant benefit for all levels of the business.

- A platform operations vendor can free the internal technical staff to concentrate on future information technology strategy. It provides more effective day-to-day operation of the computer center and network.

- Desktop services really allow user organizations to be more effective. Their impact is at the user unit level; their corporate impact is the sum of the lower-level impacts. In aggregate, such services may have more impact than large, central services.

- In a technology transition situation, the vendor can assume day-to-day management of the older technology, freeing the internal staff to speed its acclimation to and implementation of the new technology. Thus, there may be little obvious operations impact.

- An applications management vendor brings knowledge to the development of new applications and support of the current application investment. It can be particularly effective when re-engineering of legacy systems is desired.

- A systems integration project typically has its highest impact and benefit at the tactical level. The new application solution will change how a process is performed and integrate the function more tightly with the rest of the business.

EXHIBIT 13

Business Impact and Level of Benefit of Types of Outsourcing

Category	Business Impact		
	Operational	Tactical	Strategic
Applications Operations	High	High	Medium
Platform Operations	High	Medium	Medium
Desktop Services	High	Medium	Low
Transition Management	Medium	High	Low
Applications Management	High	High	Medium
Systems Integration	Medium	High	Medium
Function/ Business Re-engineering	High	High	High
Function/ Business Operation	High	Medium	Medium

- A function/business re-engineering project has a more fundamental impact. It accomplishes the changes directly. Such projects are relatively few, but of critical importance. An organization only gets one opportunity to re-engineer; if it fails, it can be out of business.

- Function/business operations contracts do not necessarily impact the strategy level. They are undertaken for economic reasons and for immediate tactical benefits such as improved customer service.

By understanding the elements of the information systems program that IS must control, and recognizing where major programs will impact the organization, each new program can be assessed against the outsourcing alternative.

Outsourcing Opportunities

Exhibit 14 shows some of the needs that outsourcing can meet which may result in benefits greater than can be provided by insourcing.

Organizational Impact of Outsourcing

The organizational impact of IS outsourcing is at three levels as shown in Exhibit 15. At the overall organization level there may be very little obvious impact of IS outsourcing. After all, many IS organizations are geographically and functionally separated from the units they serve. Interfaces with the new provider of IS are couched in the same terms as before, i.e., report titles, telephone answering messages, etc., and still use the buyer's terminology, not the vendor's.

- One area of impact, and often an uncomfortable one, results from the allocation of staff to the vendor. Formal and informal personal linkages can be broken which have been built up over the years.

- Another impact area, linked to the previous one, is that changes must now be more rigorously examined and justified. The ability to have change made on an informal basis virtually disappears, or becomes very expensive. If rigor is obtained without bureaucracy, the organization can benefit substantially, if bureaucracy and delay results from outsourcing, then user frustration will result.

- The impacts of outsourcing will be increasingly felt over time. In particular, the user functions should see faster access to skills and new technology. Typically the vendor devotes more resources to R&D in IT and its application to the customer's business. Therefore it has answers to the technology and applications questions earlier than most internal IS units. Also the wider range of skills (in IT, IS, and business functions) available to the vendor enables answers to be obtained more swiftly. In a sense the customer now has access to a captive consulting organization.

EXHIBIT 14

IS Needs Addressed by Outsourcing

Need	Opportunity
Critical Application Development	Contract with applications management vendor to develop new applications and integrate with old
Data Center Consolidation	Use platform systems operations vendor to consolidate and operate with greater economies of scale
Lower Investment	Remove the computer systems and supporting assets from balance sheet by selling IS operation to systems operations vendor
Investment Deferral	Use a systems operations vendor to provide capacity rather than adding a computer
Reduce Operating Costs	Sell IS operations to systems operation vendor through aggressive bidding process
Transition Support—Applications	Use applications maintenance vendor while developing new systems internally
Transition Support—Operations	Use platform systems operations vendor to either take over existing operation or develop new operation environment
Advanced Technology	Use application systems operations vendor to obtain and apply new technology
Network Connectivity	Contract with network management vendor to develop new network and switch over from old
Reduce Staff	Contract with applications systems operations vendor to transfer development and operations staff

EXHIBIT 15

Organizational Impacts of Outsourcing

Group	Impacts
Total Organization	No visible impact Allocation of personnel More structured changes Faster access to skills More disciplined implementation
Information Systems Management	Manage a smaller organization Shift to tactics and strategy Time available for planning Shift to vendor staff Shift out of IS interface management
Information Systems Professional	Significant initial anxiety Shift from cost center to profit environment Greater career opportunities

- Another consequence apparent over time should be more disciplined implementation. A buyer/vendor relationship is different from an internal service relationship. The vendor must pay more attention to the details of implementation because if its services fail (through the user being improperly trained, for example), it may not get paid! Internal service units can simply blame the user. Again this disciplined approach can be perceived as tedious, but it protects both parties. It is the lack of this discipline that often causes internal IS activities to fail.

The IS management staff are the most affected by IS outsourcing. If they stay with the buyer their roles change substantially:

- Firstly they manage a far smaller organization. Order of magnitude reductions are common (from 200 people to 20, for example). This entails almost a total work-time reorientation for many managers who have an internal IS orientation. Those externally oriented IS managers who have primarily devoted time to their clients, external industry activities, etc., see much less impact.

- Secondly, their role changes. Emphasis must now be much more on the planning side of management. The organizing, communicating, and control aspects now lie more with the vendor. The planning is different also. It is not devoted to resource planning (people, computer, networks) but to applications and business planning.

- Time and effort must then be allocated to this planning process. If managers do not accomplish this effectively they will be fired. There is more exposure than in their previous internal structure. There is also more potential impact. Their time is now devoted to change rather than maintaining the status quo.

- IS management now also acts as the prime interface with the vendor. This interface is now almost a partnership, although there are very important control and evaluation elements that must not be abdicated. The partnership aspects are particularly important in communications—communicating with the user departments, personnel, external providers, clients, etc.

- The biggest impact is on those IS managers who switch from the internal staff to the vendor. Their measurement criteria are often very different as is their method of work. Many of these who make this change become very enthusiastic. They are, of course, self-selected so this is not that surprising. They feel they can now truly benefit from the knowledge they have gained in the internal environment and often achieve higher recognition with the vendor.

- There remain those IS managers, like Kathy Hudson at Kodak, who move upward aggressively in the customer organization. By outsourcing the IS activity they free themselves to take greater and broader responsibility than IS.

IS staff impacts vary. For many there is very little immediate impact. They may sit at the same desk, have the same managers, and deal with the same people as before. Others, of course, have fundamental job changes, in some cases including job termination.

- The most immediate impact is one of anxiety. This starts as soon as it becomes known that the organization is considering outsourcing. This is exacerbated if the probable vendor is one with a particularly "tough" reputation. It is imperative that vendors and the buyers deal early and fast with this anxiety by clearly laying out the plan for the staff and commitments they will make. Otherwise, some of the best people (those that can easily find other jobs) will leave if they feel at all threatened.

- The long-term impact is the switch from an internal, cost-center orientation to a profit-motivated orientation. The concept of hourly billable time requires a major shift in thinking and orientation. The pace picks up substantially. Results become more important than the process. The ability to change and adapt becomes more critical.

- For many professionals, particularly the younger, upwardly oriented person, IS outsourcing often significantly enhances career opportunities if for no other reason than the vendor organizations are growing more rapidly than internal IS units.

- The more staid, "stick-in-the-mud" professional with 20 years of the same type of experience is likely to find the change very difficult and will probably not stay in the new environment. Both vendor and customer should probably expect a 30% turnover in retained staff within a year or so of the change.

Outsourcing vendors uniformly report success with the hiring of IS professionals from their clients following the signing of an agreement. Certainly not all can be offered a job, but those who receive offers frequently accept and have a turnover rate no higher than that of existing vendor employees. For the IS professional, working for a company whose business is information systems and services can bring far greater career opportunities than working for an in-house IS unit.

Vendors must identify preferred transferees as early as possible. Those who are overpaid or underqualified are also identified. The vendor helps the client address what may be a long-standing problem in these cases.

IS management should expect significant help from the outsourcing vendor in this area. Such vendors have experience to draw upon.

Buyer Attitudes toward Outsourcing

Although increasingly widely promoted as a key business concept, IS outsourcing still accounts for less than 3% of total IS expenditure in the U.S. and less than 1% in Western Europe. INPUT has examined buyer attitudes to determine why this penetration is so low.

1. Senior Executives' Views of Their IS Units

Key factors influencing senior executives when they consider the relevance of outsourcing to their organizations include the perceived value-for-money derived from IS in the past and their current degree of satisfaction with the in-house IS unit. Any management team which lacks faith in the effectiveness of its IS unit in delivering appropriate business solutions will be much more receptive to outsourcing approaches.

Overall, senior management feel that information systems have had the most significant impact in improving company efficiency and assisting in reducing business costs. Typical benefits claimed for information systems over the last decade include the reduction of paperwork and better management information leading to enhanced control of the business. Senior management also claim that their information systems have assisted them in improving overall company productivity and efficiency. While executives in the manufacturing sector claim improved inventory levels and manufacturing lead times, the claims for improved business productivity from information systems are most pronounced in the financial and business services sectors.

However they are less satisfied with IS contribution to administrative efficiency, operational cost reduction, and competitive advantage. One in five organizations is actively dissatisfied with these contributions. Obviously such users represent a target market for outsourcing vendors, provided that the vendor can convince the user that they are better positioned to make a business contribution than the in-house IS unit. At present, it is questionable whether senior executives regard information services vendors as part of the problem rather than part of the solution.

In a survey conducted by INPUT, 70% of senior executives were dissatisfied with at least one major element of their IS unit's performance.

Senior executives appear to be adequately, though not highly, satisfied with the performance of their IS unit in terms of

- Service delivery
- Development of new systems
- Return on investment

A significant proportion (about one in five) of senior executives are dissatisfied with each of these factors, and this represents an opportunity for outsourcing vendors. Where senior executives are dissatisfied with current service delivery performance, there is an opportunity for vendors to introduce platform operations. In cases where senior executives regard new systems development performance as poor, there is an opportunity for vendors offering the following:

- Application management
- Application operations
- Systems integration

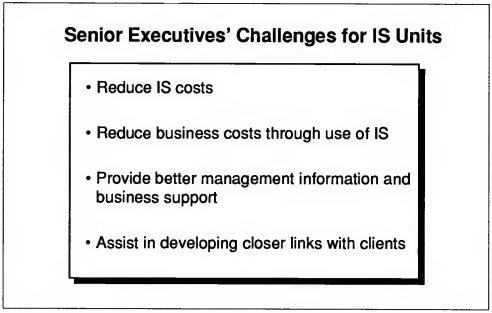
However, the true Achilles heel of many IS units lies in the poor relationships established between themselves and their internal clients. Many IS units have been taking steps to manage this interface more professionally, for example, by appointing ac-

count managers to liaise with clients. Still, over a third of senior executives remain dissatisfied with the way client liaison is handled, and the in-house IS unit's understanding of, and response to, business needs.

However, in spite of these levels of dissatisfaction, senior executives are generally loyal to their in-house IS unit.

Senior executives consider the principal challenges for IS to be cost and communications related as shown in Exhibit 16:

EXHIBIT 16



The economic situation in virtually all industrialized countries is now having a major impact on senior executives' attitudes towards IS spending. Many new development projects have been postponed. Even potentially cost-saving projects such as major equipment downsizing have been canceled because of the initial high levels of investment required.

IS has always been seen by senior executives as a key tool for reducing business costs and improving productivity, and there is increased emphasis on this role. However, the IS unit is also now expected to make its own contribution towards overall cost savings. The principal challenge is for the IS unit to maintain or improve its service to clients while simultaneously reducing its own costs.

It is clear from the above that senior executives are, on average, only moderately satisfied with the performance of their IS units. Many senior executives are dissatisfied with either the delivery of existing services or the development of new systems, and over a third of senior executives are dissatisfied with the relationship between the IS unit and its clients. Now introduced into this scenario is the fact that many senior executives would like to reduce their IS spending. This appears to be an ideal situation for outsourcing vendors, yet the moderate success of outsourcing clearly does not reflect the high level of opportunity.

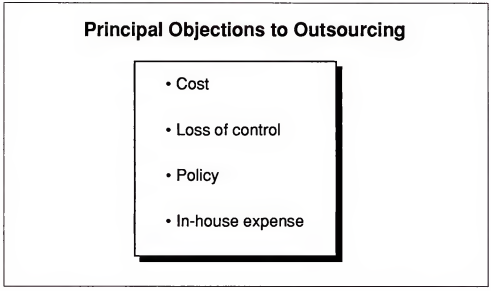
2. Attitudes toward Outsourcing in General

This level of user dissatisfaction with IS units could be expected to lead to much higher levels of outsourcing than presently exist. However, this has yet to materialize. The answer appears to lie in senior executives' perception that outsourcing services vendors are still primarily IS technicians with an inadequate understanding of the business need. A high proportion of large companies have already considered the option of outsourcing, with the majority claiming that it is not a suitable option for their organization.

The principal objection raised by those organizations that have rejected outsourcing as a viable alternative is the perceived high cost of outsourcing compared to in-house services as shown in Exhibit 17. This perception should concern outsourcing vendors. The principle of platform operations is its ability to guarantee service delivery costs for a period of years at levels equal to or below those which can be achieved by an in-house operation. So vendors should always be cost-competitive compared to in-house services when offering platform operations.

Application development is an area where services vendors are commonly perceived as being an expensive alternative to use of in-house personnel. However, taking into account the total employment costs for in-house staff, as opposed to the marginal costs of a development project, is this really true?

EXHIBIT 15



Loss of control is another major reason given by senior executives for avoiding outsourcing. This obviously depends on the attitude of the individual executive. There is a strong argument that it is actually easier to control external vendors than in-house staff due to the contractual nature of the agreement. However, executives may be nervous about awarding "open-ended" contracts rather than contracting smaller pieces.

IS managers are generally most concerned about losing control of IS strategy, project management, and systems specifications. They are less concerned about loss of control of

- Equipment operations
- Network operations
- Nonstrategic systems development

Hence these areas may meet with less opposition to outsourcing.

Corporate policy is another objection commonly raised. While IS managers may use this objection simply as a blocking device to outsourcing vendors, it does appear that organizations take a formal stance at board-level on their attitude to use of outsourcing, with many companies taking a negative position.

The presence of in-house IS expertise also acts as an inhibitor to outsourcing. Many senior executives perceive that their in-house IS units, in spite of their shortcomings, have built up a level of understanding of the way the company carries out its business. Vendors are perceived to lack this detailed knowledge, which they would have to acquire at considerable expense.

The result is that, in large organizations at least, outsourcing will only be adopted in circumstances where

- The in-house IS unit lacks the capability or resources,
- The relationship between the IS unit and senior executives has been severed, or
- IS management is prepared to adopt outsourcing, as described above.

With regard to the last point, IS managers themselves are increasingly convinced of the trend toward outsourcing; nearly 25% of respondents to a recent survey identified this as a key trend.

The current economic climate and trend to downsizing also favor services.

There is a strong pressure on IS managers to reduce their expenditure while maintaining their service to clients, increasing the likelihood of the adoption of platform operations by those organizations such as the major financial institutions where downsizing is not perceived to be appropriate.

Some vendors target outsourcing around in-house IS competencies by identifying the following:

- The core applications of strategic importance to each company
- The remaining noncore, supporting applications
- Those applications where there is strong in-house expertise
- Those application areas where in-house expertise is weak

The vendor will then typically recommend that the IS unit continue to develop and support those core applications where there is strong in-house expertise, with all the remaining application areas being outsourced.

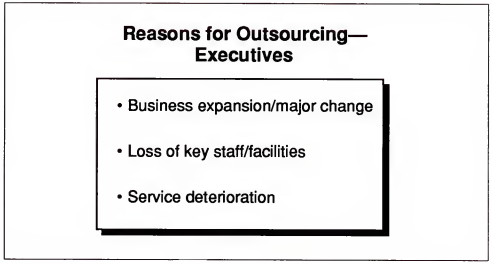
However, many senior executives perceive that their IS unit has a much better understanding of their organization's business than do outsourcing vendors.

3. Circumstances Creating Opportunities for Outsourcing

The major circumstance leading to outsourcing identified by senior executives is the inability of the IS department to provide the services required because of any of a number of factors as shown in Exhibit 18. This highlights a number of potential opportunities for outsourcing vendors since the ability of the in-house IS unit to service its clients is diminished by the following:

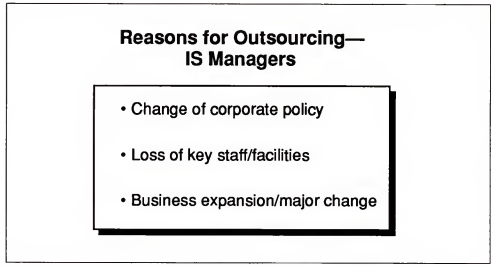
- Change in business focus
- Significant company restructuring
- Acquisition of new subsidiaries
- Downsizing or a dramatic change in technology
- Change in IS management

EXHIBIT 18



Many IS units feel vulnerable to a change in company policy on outsourcing as shown in Exhibit 19. Changes in senior management, particularly a new chief executive officer, is the most probable circumstance in which this would come about. Company acquisition is another event which could stimulate fresh thinking. Other circumstances include the severance of existing relationships between senior executives and IS management, and a refocusing on the company's core business to the exclusion of IS activities.

EXHIBIT 19



The need to increase substantially the systems development workload whether brought about by business expansion or changing business goals is another reason for possible adoption of outsourcing. However, it is probable in these instances that the workload would be satisfied more often using a systems integration service than an outsourcing approach.

Service deterioration was the other major driving force likely to lead to consideration of outsourcing by senior executives. However, it was observed in Exhibit 18 that senior executives already display quite high levels of dissatisfaction with aspects of the services currently supplied by in-house IS departments.

This presents opportunities for outsourcing vendors to demonstrate their capabilities in

- Improving the relationship between service providers and clients
- Improving service delivery
- More effective development of new systems

4. Outsourcing and Cost Reduction

Both senior executives and IS managers agree that the major challenge facing in-house IS units is the need to reduce IS costs.

The problem is that IS managers typically believe that the way for them to reduce their costs is not by reducing the delivery costs of existing services but by reducing their development activity and, where necessary, reducing the number of development staff. To the extent that IS managers recognize the need to reduce their service delivery costs, they favor options such as "lights out" processing and distributed processing over outsourcing.

One encouraging sign for outsourcing vendors is that a number of IS managers state that they would adopt outsourcing if it could be demonstrated to be cost-effective. Other IS managers state that there is a possibility of their adopting network management if their networks continued to expand and become too complex for them to readily manage in-house.

Nonetheless outsourcing vendors potentially have a significant role to play in assisting mainframe users to maintain their services to end users while reducing IS costs via services such as platform and network operations.

Implementing new systems is not currently a major priority for mainframe users. This could mean that many large IS departments will reduce their staffing in these difficult economic times, with the result being increased opportunity for outsourcing vendors.

Downsizing is considered a key trend for their organization by many IS managers (by 30% of IS manager respondents to one INPUT survey). This has several implications for outsourcing vendors.

- Firstly, it creates a large number of opportunities. At one level, downsizing creates transition management opportunities to manage the "old" systems while the in-house IS department concentrates all of its resources on the new systems. At another level, downsizing creates a discontinuity, and a need to retrain the IS department, which provides an opening for senior management to introduce applications operations services and move to a more complete outsourcing arrangement.

- Downsizing, on the other hand, is an alternative means of cost reduction to outsourcing and threatens to decrease markedly the market potential for vendors offering platform operations.

5. Effects of Buyer Attitudes on Types of Outsourcing

In large organizations, the rate of take-up of outsourcing has been significantly reduced by opposition from IS managers and the reluctance of most chief executive officers to impose its use. Accordingly the rate of take-up of differing types of outsourcing will reflect the level of resistance they meet in the IS community.

The types of service that meet the lower levels of resistance amongst IS managers are indicated in Exhibit 20, while the types of outsourcing service that typically meet high levels of opposition are listed in Exhibit 21.

EXHIBIT 20

Outsourcing Services Meeting Least IS Unit Resistance

Outsourcing Service	Level of Resistance
Transition Management	Low
Network Management	Low/Medium
Applications Maintenance	Low/Medium

EXHIBIT 21

Outsourcing Services Meeting Highest IS Unit Resistance

Outsourcing Service	Level of Resistance
Applications Operations	Very High
Applications Management	High
Platform Operations	Medium

Transition management may even be positively welcomed by IS managers, since it removes their burden of running and maintaining "old" systems, allowing the organization to concentrate on IS strategy and new systems development—its preferred activities. Furthermore, transition management may be perceived as posing little long-term threat to the in-house IS department.

Network management and applications maintenance are expected to show strong growth over the next five years as users become more confident in outsourcing these activities.

Network management is an area where many IS departments lack in-depth technical skills. Many wide-area networks that were initiated by in-house IS units are now reaching a size and complexity that makes them "unmanageable" in the absence of a unit dedicated to this task. Rather than set up such units, IS managers are often prepared to consider the use of an outsourcing vendor.

Application maintenance, namely the outsourcing of the maintenance of applications that were initially developed in-house, is a recent market development still in its infancy. However, application maintenance takes up a large proportion of IS departments' resources while being an unpopular activity with software development personnel.

The main pressures encouraging clients to outsource applications software maintenance and support include the following:

- Dependence on aging application systems
- Resource management difficulties
- Software staff discontent
- New business demands on staff
- "Holding action" during transition
- User discontent with quality of service

They are all primarily management issues, some resulting from technical difficulties:

- *Software*—Applications are becoming difficult to maintain because they are aging, skills have been lost, or languages and other systems software have become out of date. Managing the housekeeping of such software environments is a skill many IS departments lack.

- *Staff*—Retaining and motivating staff on "maintenance" projects can be hard as it doesn't have the glamorous image of new development projects. Outsourcing makes this someone else's problem, and frees staff to work on new business projects.

- *Users*—If the quality of service provided to users has declined unacceptably, the "hassle" resulting from their discontent, often resulting in new systems, can equally well result in outsourcing the support of existing applications. Giving users sufficient ownership and control over applications service stands out as a key factor in the success of any outsourcing service project.

The present economic climate provides the right environment for outsourcing vendors to market the benefits of applications maintenance services such as the following:

- Low-cost maintenance of existing systems
- High utilization of scarce in-house IS staff for new systems development
- Higher satisfaction from users

However, vendors will need to overcome some reluctance amongst IS managers to openly admit to the problems they have in maintaining "old" systems. But, apart from the danger of embarrassment, maintenance management poses little long-term threat to IS managers.

Mainframe computers, with their complex operating systems, are particularly expensive to manage. Platform operations can reduce the costs of management and also their unpredictability. They can also reduce the uncertainties in operating large computer systems caused by factors such as

- Performance worries and the consequent need for equipment upgrades
- New versions of the operating systems
- Need to change operating systems, possibly imposed by the equipment vendor
- Recruitment, training, and retention of systems software specialists

As well as assisting in cost control, outsourcing of computer operations removes day-to-day management problems, such as absent operators and users complaining that their reports have not been delivered on time.

The present economic climate should favor platform operations since IS managers now have a strong need to reduce their costs while maintaining services, which is the principal objective of mainframe platform operations. Platform operations is likely to meet with a moderate amount of resistance from IS management. However, many IS managers state that they will adopt outsourcing if it can be proven to be cost effective, and a platform operations contract may well be the lesser evil when the chief executive insists on cost savings from the IS unit.

Both applications management and applications operations are expected to meet with very high levels of resistance from IS managers. Indeed, application operations is only likely if it is imposed by the chief executive officer of the company. Typically it will only occur in organizations undergoing dramatic transformations.

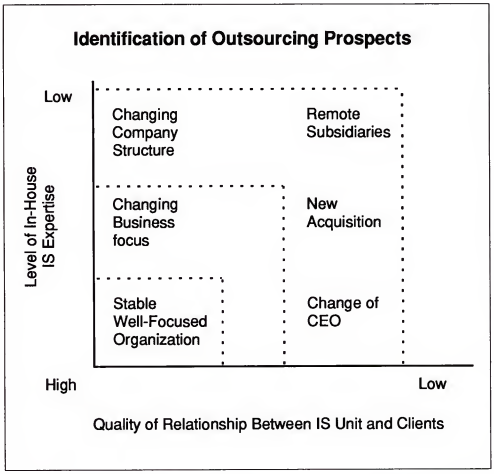
Exhibit 22 indicates the likelihood of large organizations adopting outsourcing. The organization will be more likely to adopt outsourcing the lower the in-house IS capability and the poorer the quality of the relationship between the IS department and its clients.

The subsidiaries of large conglomerates are typically good outsourcing prospects since a centralized IS unit may have difficulty in fully understanding their needs, give them a low priority compared to the core business, and be too remote to maintain a good relationship with the subsidiary's senior executives. Newly acquired or divested companies are also good outsourcing candidates.

A change of senior management can also lead to adoption of outsourcing, particularly if the new executive is known to favor outsourcing.

Company reorganizations and refocusing also commonly lead to outsourcing. Decentralization often necessitates downsizing and a realignment of IS systems. Depending on the severity of the company's problems and the attitudes of senior executives this can mean either transition management or application operations are adopted.

EXHIBIT 22



Medium-sized and smaller organizations will typically need more assistance with application development and show signs of lower levels of opposition to application management and application operations. Accordingly, they may present the best prospects for outsourcing vendors emphasizing application operations. However, they may feel they are too small to finance outsourcing and need convincing that outsourcing is a cost-effective option.

This section provides brief case studies covering several types of IS outsourcing. Examples are provided for the following:

- Transition management
- Applications maintenance
- Platform systems operations
- Application systems operations
- Desktop services

Transition Management

1. Case Study A

This example illustrates a very typical use of transition management. The company that is the subject of Exhibit 23 is a major retailing organization, whose senior executives perceived that the IS systems in use were no longer well aligned with changing business needs. Accordingly, it was decided to develop new systems and to phase out the mainframe and its existing systems.

New systems were to be developed by the internal IS department, which retained a high level of credibility with senior executives of the company. However to assist in refocusing the IS department in the new developments, it was felt desirable to free IS personnel from maintenance and support activities on the "old" systems and to free space for locating the new equipment.

As a result, a transition management contract was negotiated with a systems operations vendor whereby the mainframe was relocated in the vendor's data center and the vendor took over responsibility for operating the equipment and maintaining some of the applications for a period of two years.

EXHIBIT 23

Case Study A: Transition Management

Reasons for Adoption	Free personnel to develop new systems
Vendor Selection Criteria	Technological capability Cost Location
Length of Contract	2 Years
Level of Satisfaction	Good
Likes	Efficiency of operations
Dislikes	Minor operational problems

It is intended that the contract will terminate at the end of the two-year period when the "old" systems are no longer required.

Overall, the users have been very satisfied with the service levels provided by the vendor, the only problem being minor operational problems caused by misunderstandings between the users and the operators at the data center.

2. Case Study B

Case Study B, as summarized in Exhibit 24, concerns a regional computing center of a health authority in the U.K.

The regional computing center was responsible for the provision of processing services, software development, evaluation and acquisition, and network management covering each of the district health authorities within the region. As well as political pressure to outsource, regional computing facilities were becoming inappropriate since decision making and corresponding

information systems were being increasingly devolved to the district and hospital levels. In addition, it was difficult to recruit and retain good staff, and the region's capital budgets were inadequate to maintain IS investment.

As a result it was decided that the existing regional operation should be taken over by a systems operations vendor who was prepared to guarantee

- Service levels to the district health authorities
- Price protection to the district health authorities

Even though the entire operation was transferred to the systems operations vendor and the districts are guaranteed support for up to five years, they are also free to run their own local systems or enter into agreements with the vendors of their choice.

EXHIBIT 24

Case Study B: Long-Term Transition Management

Reasons for Adoption	Not a core activity. Trend away from regional computing centers
Vendor Selection Criteria	Price Staff selection
Length of Contract	5 years
Level of Satisfaction	Good
Likes	Improved network management
Dislikes	Would like more proactive stance

The systems operations vendor looking after the regional systems is guaranteed the right to be invited to tender for new business or applications, but will have to win the business in competition with other software and services vendors. There is no guarantee that the vendor will receive any IS development business.

So far the users have been very satisfied with the service provided, with improvements in the help desk facilities and the eradication of operating problems in the wide-area network being the most obvious manifestations of the improvements made. However, the user would also like to receive a more proactive stance from the systems operations vendor and faster progress towards the implementation of up-to-date IS systems.

Applications Maintenance—Case Study C

Case study C, outlined in Exhibit 25, concerns a large IS group where there is pressure for new applications that reflect more customer orientation. Freeing IS staff with valuable internal business knowledge was the main objective.

The application was a major inventory and warehouse management system implemented at several locations for regional operations. The five-year-old systems had been treated like most heavily used applications—speedy fixing of problems had taken precedence over elegantly engineered solutions.

Because of the speed, and lack of discipline, with which "faults" had been "corrected," the system was particularly fragile and users perceived that a 24-hour emergency service was required. The system was also providing users with very poor response times—at one point response times had reached 20 minutes. As a result, it was perceived that the system would need to be replaced as soon as a suitable application software product could be found on which to base its successor.

Since 23 people were employed in supporting the application, this was an excellent test case on which to judge the promises of the service vendor.

In this case the knowledge transfer required to release 19 of the in-house support and development staff took six months. There was also considerable spin-off in knowledge transfer from the vendor to the computer operations staff, as improved working practices were applied to establish a more stable and reliable software environment.

This led to response times of less that one second being achieved. In addition, the original high level of user complaint has given way to silent satisfaction and the original 24-hour emergency service level has been reduced to a normal working hours service. Many of the new working practices introduced by the vendor have been adopted by the IS client management.

The net result was the continued use of the application—it was no longer felt necessary to replace the system at considerable expense.

As with other types of systems operations or facilities management service, the major benefit seen by client management is having a defined and costed service level as the primary objective of the service contract.

EXHIBIT 25

Case Study C: Applications Maintenance

Reasons for Adoption	Need to free staff and improve user service
Level of Satisfaction	High
Likes	Much improved user service
Dislikes	None

This measurability of course is the key to the success of such projects. Most IS departments have not acquired the tools or management techniques to clearly define and regularly measure the performance criteria by which both users and IS management can judge the success of an application. They are more usually trapped in a "fire-fighting" mode.

When users have more than just response times by which to measure the service they receive and can assess the cost benefits of changes they would like, then they can make informed decisions and become involved in reducing running costs with clear ownership of their own application requirements.

However, in spite of the considerable success achieved by this project, no other applications have been outsourced under application maintenance agreements by the user.

C
Platform Systems Operations

1. Case Study D

The company that is the subject of Exhibit 26 is a large manufacturing company running applications such as accounting and production management on IBM mainframe equipment. Like many discrete manufacturing companies, the company operates in highly competitive markets and faces constant pressure to reduce costs.

Accordingly, the company decided that, whereas control of the information available to management is a critical success factor, running computer platforms is not. The company outsourced its mainframe operations, which were transferred to the system operations vendor's data center, but retained in-house all application development.

The major benefits perceived by the user included

- Fixed annual costs
- No overtime payments to operations personnel
- No involvement in equipment upgrades
- Freedom from concerns over evolving operating systems

The combination of service levels and cost was the major basis for the choice of vendor, but the vendor's proven technical expertise was also an important consideration.

EXHIBIT 26

Case Study D: Platform Systems Operations

Reasons for Adoption	Mainframe operations not a core business
Vendor Selection Criteria	Cost Service levels
Length of Contract	5 years
Level of Satisfaction	Good
Likes	Improved level of service
Dislikes	Adjustment to new working relationships

The users perceived that service levels improved as a result of the new arrangement, and their major concern was the length of time it took the in-house development personnel to adjust to the new working relationships with their former colleagues operating the systems.

2. Case Study E

Case Study D reflects the traditional role of platform systems operations in providing a fixed-cost service on mainframe equipment. Case Study E illustrates a different role for systems operations in a midrange platform environment.

The company that is the subject of Exhibit 27 is a manufacturing company that had decentralized into a number of business units. As a result, centralized IS services run from a common mainframe were no longer felt to be appropriate and the business units had adopted minicomputer-based solutions.

However, this had caused problems, which resulted in the financial department becoming involved in disputes over operational problems on a daily basis. The user felt that the vendor that had supplied the solution had underestimated the complexity of equipment operation. Accordingly, a platform operations contract was entered into with a systems operations vendor, which relocated the minicomputer to its own data center.

The user perceived the transition to be very well managed and is very satisfied with the invisibility of the new service, in spite of some initial confusion over the use of the vendor's hotline service. However the contract is only short term to enable the user to gain experience in systems operations and review its needs accordingly.

EXHIBIT 27

Case Study E: Platform Systems Operations

Reasons for Adoption	Underestimated problems in operating midrange systems
Vendor Selection Criteria	Established relationship
Length of Contract	18 months
Level of Satisfaction	Very high
Likes	Invisibility of service
Dislikes	"Teething problems"

Applications Systems Operations

1. Case Study F

Case Study F, illustrated in Exhibit 28, also concerns a company in the manufacturing sector that was faced with declining markets.

The company had been acquired by a conglomerate, and subsequently had been reorganized into a series of decentralized business units. Prior to this re-organization, the company had a large in-house IS department supporting mainframe-based systems. As a result of the re-organization, centralized mainframe-based systems were no longer felt to be appropriate and there was a strong need to realign the IS systems with the new business need. There was also a belief that the in-house IS department was extremely costly.

Consequently, the in-house IS department was abolished and the mainframe-based systems relocated to the vendor's data center. However this was only a transitional arrangement with the systems operations vendor also being given responsibility for the development of new midrange-based systems to meet the new requirements of the business.

The company was pleased with the software development and support capabilities of the systems operations vendor, although some problems in liaising with the operators in the vendor's data center had arisen.

EXHIBIT 28

Case Study F: Application Systems Operations

Reasons for Adoption	Move to decentralized business units Cost reduction
Length of Contract	3 years
Level of Satisfaction	High
Likes	Software development capabilities
Dislikes	Lack of consistency in operating procedures

2. Case Study G

While Case Study F is a typical example of a defensive move to systems operations being undertaken by a company facing considerable financial pressure, Case Study G, as illustrated in Exhibit 29, reflects a more forward-looking approach to systems operations.

The company concerned is a comparatively small insurance company, which recognized the need to develop comprehensive new IS systems to support its business but perceived the cost of investing in mainframe equipment and custom software development to be prohibitive for a company of its size.

So the company found a systems operations vendor that would enable them to share the use of a mainframe and that would develop the systems required. This has proved to be a satisfactory arrangement. However, the user regularly estimates the equivalent cost of providing the service in-house to ensure that the company is receiving good value from the systems operations vendor.

This is clearly so while the service is based on a mainframe platform, but the user has now turned its attention to downsizing and UNIV-based systems. It is probable that the company will at some point in the future transfer the systems in-house on UNIV-based equipment. The company believes that platform operation will be considerably simplified in this environment.

EXHIBIT 29

Case Study G: Application Systems Operations

Reasons for Adoption	Cost of developing new system
Vendor Selection Criteria	Very few suppliers
Length of Contract	3-year rolling cycle
Level of Satisfaction	Satisfactory
Likes	Application development Systems programming
Dislikes	High turnover of operations personnel

This illustrates the large potential problem facing outsourcing vendors from downsizing.

Desktop Services—Case Study H

Whereas Case Study G showed the potential negative impact of downsizing on outsourcing, this case study shows the opportunity. Case Study H is a desktop services contract issued by a large conglomerate, primarily in manufacturing, to a support and maintenance division of a major IT vendor.

The buyer required wide geographic coverage because of its many locations. It has over 90,000 PCs installed of almost every brand and configuration. The manager of IS stated the purpose of the contract is to "clean up our act and simplify the environment."

The buyer was suffering from the uncontrolled environment:

- It was not getting volume discounts that large and consistent order placements could obtain.
- Maintaining compatibility among software packages was a "nightmare."
- Training and education were complicated by the diversity of equipment.

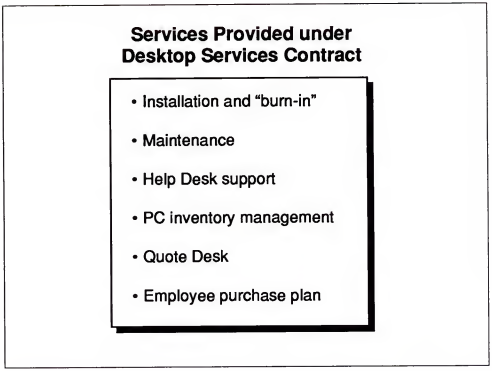
EXHIBIT 30

Case Study H: Desktop Services

Reasons for adoption	Simplify the environment, obtain discounts
Vendor selection criteria	Experience, coverage
Value of contract	$500 million
Level of satisfaction, etc.	New contract

The services provided by the vendor under this contract are listed in Exhibit 31. The employee purchase plan is a new feature (ideally it will encourage employees to purchase nonstandard items in current inventory thus getting them out of the system).

EXHIBIT 31



The first priority will be to centralize the purchase and installation of equipment. Obviously getting the procurement process under control is where savings can quickly be realized and standard platforms distributed through the organization.

This is a classic example of an external source being necessary to make a fundamental change, in this case regaining control of the desktop environment. There is actually an internal unit in the buyer already charged with many of the tasks in this contract, such as maintenance and training. But they were deemed not to be able to satisfy the overall need.

However, the buyer has not totally shifted this unit to the contractor—it is working as a subcontractor. This could be a mistake.