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MAY 1991

SYSTEMS OPERATIONS VENDOR CHALLENGES AND OPPORTUNITIES

WESTERN EUROPE

1990-1995

INPUT®

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Piccadilly House
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London SW1Y 4NF
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Published by
INPUT
1280 Villa Street
Mountain View, CA 94041-1194
U.S.A.

Systems Management Programme—Europe

Systems Operations Vendor Challenges and Opportunities—Western Europe, 1990-1995

SESVO • 519 • 1990

Abstract

Systems operations is defined by INPUT as the market for vendor operation and management of all or a significant part of a user's information systems functions under a long-term contract. These services can be provided in either of two distinct submodes:

- Professional services - the vendor provides personnel to operate client-supplied equipment.
- Processing services - the vendor provides personnel, equipment and (optionally) facilities.

This report discusses issues facing vendors in this rapidly growing market in Western Europe. These include marketing, developing the client relationship, human resource issues, future development opportunities and vendor alliance strategies.

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Exhibits

Exhibits (Continued)

Introduction

Introduction

A

Objectives

The objective of this report is to examine issues facing systems operations vendors in the Western European market. The report sets out to analyse, from the vendor's perspective, the principal factors concerned in identifying potential clients, building and developing the client relationship and in creating the necessary management and skill requirements for successful systems operations. Additionally, the report discusses likely future trends in the Western European market for systems operations services.

Systems operations, often referred to as facilities management (FM), is now a concept of some 20 years standing, having originated in the U.S. market in the late 1960s. The U.S. is now the most developed systems operations market in the world. Japan also represents a significant market for this service mode. The Western European market has, until the last few years, remained relatively underdeveloped. However, an upsurge of interest in outsourcing the information systems (IS) operations activity is now creating considerable interest amongst vendors for systems operations services.

B

Scope

Systems operations involves the operation and management of all or a significant part of the user's information systems functions under a long-term contract. Exhibit I-1 positions systems operations within the overall information services market. Systems operations services can be provided in either of two distinct submodes:

- *Professional Services:* The vendor provides personnel to operate client-supplied equipment. Prior to 1990, this was a submode of the Professional Services delivery mode.

- *Processing Services:* The vendor provides personnel, equipment and (optionally) facilities. Prior to 1990, this was a submode of the Processing Services delivery mode.

Systems operations vendors now provide a wide variety of services in support of existing information systems. The vendor can plan, control, provide, operate, maintain and manage any or all components of the user's information systems (equipment, networks, systems and/or application software), either at the client's site or the vendor's site. Systems operations can also be referred to as "resource management" or "facilities management."

There are two general levels of systems operations:

- *Platform/network operations* - where the vendor operates the computer system and/or network without taking responsibility for the applications

- *Application operations* - where the vendor takes responsibility for the complete system, including equipment, associated telecommunications networks, and applications software

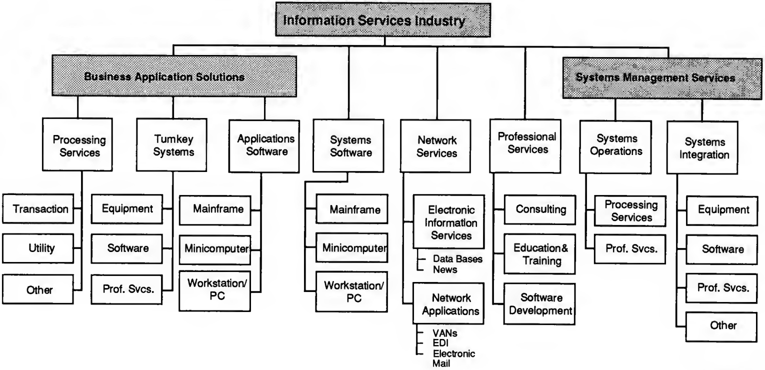
This report is specifically targeted at providing an analysis of issues and challenges within the systems operations market from the perspective of the vendor. Companion reports to this volume, listed below, provide more detailed data on the market and the vendors competing within it, and on user perspectives in respect of systems operations.

- *Systems Operations Market—Western Europe, 1990-1995*

- *Systems Operations User Issues—Western Europe, 1990-1995*

EXHIBIT I-1

Information Services Industry Structure—1990



Source: INPUT

C

Methodology

The research that contributed to this study was derived from two principal sources:

- A series of interviews specifically targeted at major systems operations vendors active in the Western European market.
- INPUT's continuous analysis of the whole computer software and services market, which includes an extensive programme of interviews with both vendors and users in Europe.

Additionally, INPUT's extensive library and database of information relating to the software and services industry was utilised.

D

Report Structure

The remaining chapters of this report are structured in the following way:

- Chapter II is an executive overview providing a concise summary of the salient points of the report.
- Chapter III describes the fundamental driving forces for systems operations contracting and the potential benefits and inhibiting factors that must be recognised in order to develop sales and marketing strategies and tactics.
- Chapter IV addresses the key challenges facing systems operations vendors—marketing, developing the client relationship, operational issues and human resourcing.
- Chapter V examines future directions for systems operations, service development opportunities and the creation of vendor alliances to assist in their exploitation.

Executive Overview

II

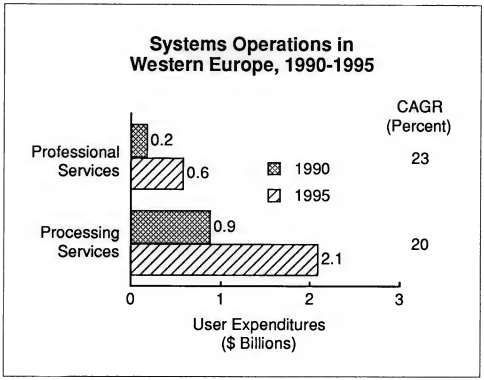
Executive Overview

A

Outsourcing Systems Operations—Key Opportunities for the 1990s

Outsourcing systems operations has emerged as a key vendor opportunity in Western Europe as users begin to recognise the distinction between the unique applications which support their organisational goals, and the utility status of the operational process. Increasingly this distinction legitimises the outsourcing of the systems operations function. There has been a significant increase in vendor activity to meet the demand for this type of service in Western Europe, which is anticipated to grow at 20% per annum to reach $2.7 billion by 1995, as shown in Exhibit II-1.

EXHIBIT II-1



The outsourcing of information systems management is becoming a key theme for the 1990s, which in turn is causing fundamental changes in the structure of the information systems and services market. Systems operations and systems integration have both emerged as uniquely important service delivery modes in response to these changes. As a result, INPUT has modified its delivery mode structure to reflect this change.

The outsourcing of systems operations is being driven by a variety of factors, economic, management and technological. It is increasingly important that information systems make a return on their investment; managers are therefore seeking to measure the effectiveness of their systems. Systems operations meets this requirement by providing a technical service that is measurable in terms of its cost impact on an organisation. Systems operations in effect provides the hybrid business/technology manager so eagerly sought; it resolves the information systems human resources problem.

The increasing complexity of information technology systems is leading to the need to build longer-term client/vendor relationships. It is thus becoming necessary for vendors to develop partnerships with their clients, taking on responsibility for information systems and allowing business executives and administrators to refocus more effort on their principal responsibilities. Thus, although systems operations can deliver tactical benefits like cost reduction and service improvement, its real benefits are strategic. Loss of control over a key strategic resource is the major argument put up against systems operations, all too frequently being an emotional response to change. The true development of a vendor/client partnership and the discipline that this imposes on both parties can actually increase management control over the systems operation, an activity that has not historically been controlled in respect of its financial return.

The development of systems operations contracts opens up the opportunity to extend service provision into further areas like network management, disaster recovery services and consultancy. In order to do this, and maintain a prime contracting relationship with the client, it may be necessary for the vendor to consider the development of alliances with other vendors. These alliances can supply the necessary specialist skills and knowledge that enable the provision of a full service offering.

B

Environmental Factors

The increasing interest in outsourcing the systems operations activity in Western Europe is being brought about by a number of factors that are economic, managerial and technological in origin. The external environment within which organisations must operate is undergoing unprecedented change. The principal causes of that change are listed in Exhibit II-2.

EXHIBIT II-2

Few companies today can operate in isolated markets free from international competition. This is particularly true in Europe as the post-1992 single market approaches. This is forcing organisations to examine the international implications for their businesses, particularly the competitive impacts.

Deregulation not only has a dramatic impact on the sector itself but has far-reaching effects on the overall business environment. It creates new opportunities but also increases competitive pressures leading to new application requirements for information systems.

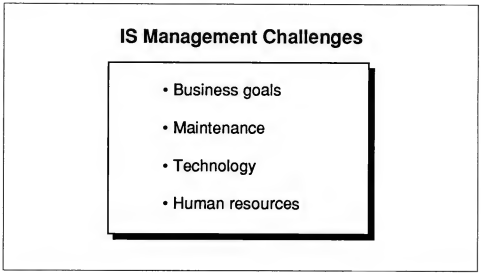
The 1990s have ushered in a new business climate in stark contrast to the heady merger/acquisition days of the 1980s. Consequently companies have been forced to re-examine their core business focus and place greater emphasis on specialisation. This leads to the need for information systems investment on strategic systems.

The pace of change in the world continues to increase. Information technology not only assists this process but also offers remedies in that it can assist management to cope with the increasing pace of change. This implies of course that the information systems capability can react quickly and respond to the environment within which it operates.

The need for integration is a response to the rapidly escalating complexity facing operational units in today's economic environment. No large business or organisation is free from unexpected significant change. The information network must support the changing flow of the organisation which will impact both inter- and intra-organisational relationships, thus generating requirements for application integration.

These new and changing requirements set the environment within which IS must manage its equipment, software and human resources. The principal challenges facing IS management are listed in Exhibit II-3.

EXHIBIT II-3



The principal business-oriented goals for IS management are to improve project delivery performance and to apply business focus. Only through the achievement of these goals can IS achieve an effective return on its investment which should be its ultimate objective.

Managing the applications maintenance function is also a critical challenge, one that is estimated to currently absorb anything between 50% to 70% of total in-house resources.

Additionally IS managers face increasing technology challenges as new possibilities are created by both new equipment and new software products. Networking and downsizing are very important issues for IS management.

Finally, but of critical importance, is the issue of human resources. Staff turnover, organisational loyalty, business appreciation focus and the need for specific technical skills all present particular challenges to IS management.

C

Outsourcing

The fundamental driving force for the phenomenon of outsourcing within the information systems environment is the increasing complexity of information technology solutions. This increasing complexity is having the effect of broadening the scope of activities for which users require support and assistance and the length of time over which they must be provided. Consequently services vendors and their clients are being drawn inexorably closer together into a partnership relationship rather than just one of a vendor and a client.

The key factor in the development of these new outsourcing relationships is that of service:

- Service through the provision of professional services, the supply of expertise to assist the client in realising information technology based solutions.

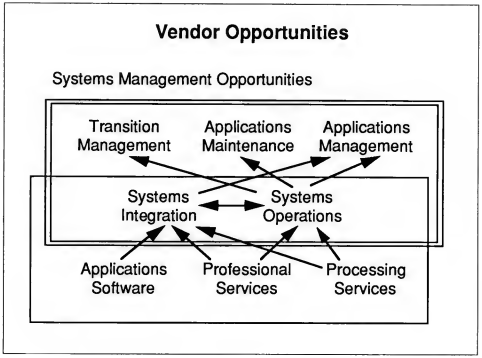
- Service through the provision of a management function that is much deeper than provided previously and that is operated through a high level of general management responsibility on the part of both the client and the vendor.

Outsourcing has thus arisen as a major theme for the early 1990s within the information systems arena, just as systems integration was the new theme of the late 1980s.

Outsourcing is causing some fundamental changes in the structure of the information systems and services market as it forces the vendor community to re-examine the whole process of selling software and services. Exhibit II-4 provides in diagrammatic form a comparison between the industry modes used by INPUT to analyse the market and the new market opportunities developing out of the trend towards outsourcing.

Over the past three years INPUT has modified its delivery mode structure to identify systems integration and systems operations as emerging and unique delivery modes. These delivery modes represent new opportunities for vendors and users in the 1990s to meet the anticipated client demands for support and services in applications management and maintenance and in transition management.

EXHIBIT II-4

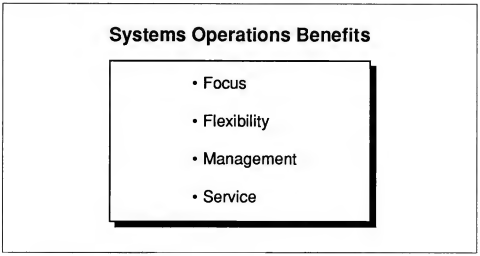


D

Systems Operations Rationale

Exhibit II-5 lists the key benefits that users can expect to achieve through outsourcing the systems operations function.

EXHIBIT II-5



In an increasingly competitive environment, senior executives need to concentrate their efforts on the core business focus of the organisation. The provision of basic information systems capabilities can increasingly be seen as a utility or commodity operation, which can more effectively

be handed over to a third-party contractor. This need for business focus would be particularly acute in a situation where an organisation is going through substantial change or undertaking a merger or an acquisition.

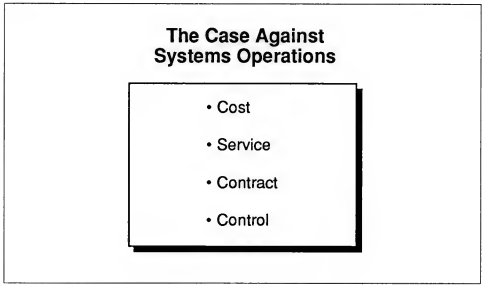
Outsourcing systems operations is an attractive proposition in these circumstances because it provides the client with a higher degree of flexibility to choose from a greater range of information systems options. It allows change to be more easily adopted and to be implemented much more quickly. A user can, for example, contract the vendor to take over existing systems and thus free up in-house resources for the development of new systems.

The provision of an external management capability is a key factor, given the increasing complexity of developing, implementing and operating information systems. It also removes, completely or substantially, the staffing issue, which is often a troublesome problem within organisations.

Of fundamental importance is the improvement of the overall service level and the overall reduction and control of costs. A systems operations vendor can bring much more extensive experience to bear on the clients' information systems challenges than is often available in-house.

Despite the strong arguments that exist for outsourcing systems operations it must be remembered that it is still a relatively small market in comparison with the total expenditure on software and services, and that strong resistance to the whole concept is met in many quarters. The principal arguments against systems operations contracting are listed in Exhibit II-6.

EXHIBIT II-6



Firstly, many organisations just do not believe that cost savings can be achieved by going to a third party service. This is probably a view partly generated by the experience of using processing services, a service mode that has declined in popularity since the beginning of the 1980s, as low cost computing capability became widely available. Possibly it is a view sustained by an incomplete understanding of the true costs of an organisation's information systems.

The cost argument is closely aligned with the service argument. There exists a strong belief that only the right level of service can be provided internally and certainly not at a reduced cost from that currently experienced. Some users believe that it will always be the vendor's priorities, not those of the client, that will prevail in any conflict situation.

Difficulties in negotiating an appropriate contract will be posed as a problem to be overcome by many users. However, perhaps the most critical issue of all is that of loss of control, and this is probably the only argument that can be considered strategic. Undoubtedly there exist situations where outsourcing would be inappropriate, but in many other situations it is difficult for management to accept that it can actually gain more control through outside contracting.

E

Marketing Challenges

Prospect identification is one of the most important marketing challenges facing the systems operations vendor. Unfortunately there exists no clear cut means of readily identifying systems operation client targets. Three issues, however, do stand out as being helpful in identifying prospects:

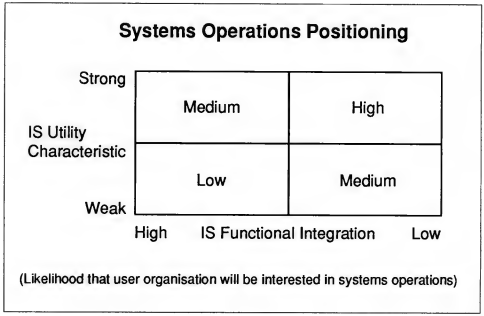
- The existence of a strong cost case for outsourcing systems operations.
- The practicality of taking over the IS organisation.
- The significance of the IS function to the prospect's overall organisation.

In respect of the last point, two important characteristics emerge:

- The degree to which IS is integrated into the organisation function(s).
- The subjective evaluation of the "strategic" nature of the information system.

Exhibit II-7 represents a positioning diagram which can be used to provide some indications of how likely an organisation is to outsource its information systems activity.

EXHIBIT II-7



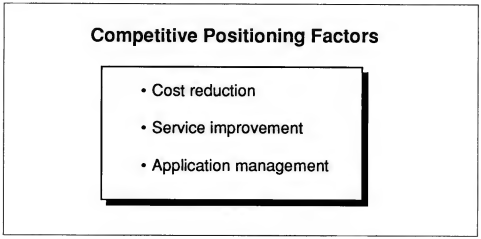
Where the information systems function is both highly integrated into an organisational function and is providing a relatively unique, specialised service, the expectation for outsourcing can be considered weak. In contrast, where the utility characteristic of the service is strong and there is a low level of integration into the business function, the prospects for systems operations outsourcing can be considered high. It is of course important to remember that this kind of analysis only represents a rough framework for establishing a broad understanding of the market; no hard and fast rules exist and many exceptions will occur.

Some other characteristics of target companies that will provide some indication of systems operations outsourcing will be:

- Fast growth.
- Structural change and refocusing.
- Problems (often financial).
- Multiple IS architectures.

In presenting themselves to the market, systems operations vendors not only have to carefully analyse the prospect base but to consider very carefully how to position themselves to take best advantage of the opportunities. Some key positioning factors are listed in Exhibit II-8. Each one of these will strongly influence how a vendor goes about developing its marketing image and identifying its prospects. In addition to the three basic approaches listed in Exhibit II-8, other approaches might emphasise a particular technological capability or a particular aspect of information services like the management of change or transition.

EXHIBIT II-8



F

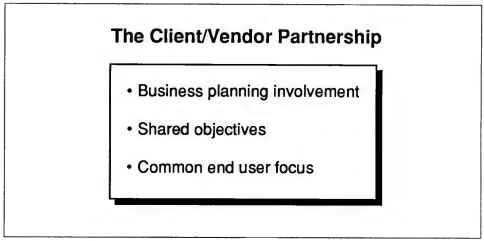
The Client Relationship

The development of the client relationship is particularly significant to both the sales and full life-cycle of a systems operations contract. Many vendors refer to this as the development of a "partnership" rather than a business relationship.

The nature of a systems operations contract is a long-term commitment typically several years in duration. Whilst important legal considerations do exist it is clear that the relationship must go beyond the definitions implied in a contract. Information systems needs and wants change rapidly over time and the client is now dependent upon the vendor for at least a substantial, if not the total provision of his information systems. Systems operations contracts can really only be either win/win or lose/lose situations.

The vendor's principal management aim must be the creation of a relationship that is tuned as precisely as possible to the clients' requirements. The key characteristics of the relationship are indicated in Exhibit II-9.

EXHIBIT II-9



Involvement in the clients' business planning process is frequently seen as an essential element. Without that level of involvement the vendor will not be able to apply the information systems to most effectively meet the clients' requirements.

It is important for both the vendor and the client to have shared objectives. The vendor must be willing and able to accept the client's objectives and work together with the client in achieving them.

The role and needs of the end user must also be thoroughly understood and catered for. The end user is the real customer, not the internal user of the information system. Both the client and vendor must share a common focus on the needs of the ultimate beneficiaries of the systems being operated.

Many vendors view the key to creating this kind of effective partnership as the management methods that are established for controlling the systems operations process. They recognise that it is often the lack of internal management capability that creates the need for a systems operations contract.

Important methods to be adopted in the systems operations management process are:

- Daily communication
- Frequent senior management visits
- Sharing of key information
- The establishment of mutual trust
- Use of verbal agreements.

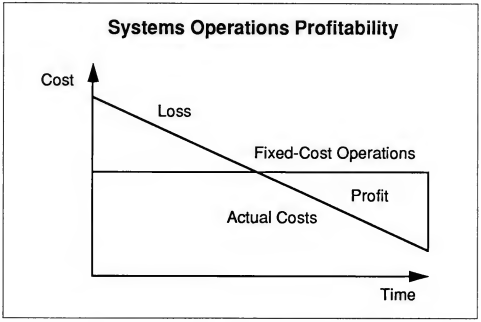
G

Operational Issues

Key operational issues for systems operations vendors are operational efficiency/profitability, technology development and human resources.

The operational efficiency of a vendor and its profitability are clearly of key importance. Exhibit II-10 shows a graphical representation of the profitability model for a systems operations contract. The systems operations vendor's strategy must be to drive down costs as quickly as possible from the initial start-up phase when the project may have to be operated at a loss. The fixed nature of the revenue stream does allow for a high potential for profit as economies of scale can be brought to bear by the vendor.

EXHIBIT II-10



One of the key issues for systems operations profitability is the location of the facility. Concentrating the client's processing load onto a control data centre is generally the most effective way of reducing costs; however this cannot always be done as the nature of the client's organisation and applications must be taken into account. Aspects of security are important in this respect. Critical mass is also an important factor, which is why major contracts are hotly contested.

Amongst the technology areas of most importance to system operations vendors are networks. The ability to connect to the client remotely clearly offers the opportunity to efficiently concentrate processing power. However, demand is rising for local-area and wide-area network support and not just for high-speed point-to-point data communication. The systems operations of computer networks is likely to become a major opportunity for the 1990s.

The ever improving price/performance characteristic of information systems is causing systems operations vendors to move away from a mainframe orientation. Smaller system units do not imply a decreasing interest in outsourcing systems operation. Networked systems of powerful workstations and file servers are presenting complex demands on internal IS departments.

As users become increasingly interested in applications support as well as platform systems operations it will be important for vendors to be well versed in system development and support methodologies and CASE. This will also apply to the reverse engineering required for the applications maintenance task.

Another important software product challenge is the use of third party products by systems operations vendors. The issue to be resolved is the level of license fee to be paid for multiple use by the systems operations vendor's clients, either centrally or on multiple sites.

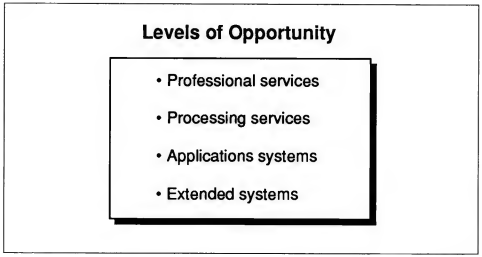
The advent of open systems standards has ushered in increasing numbers of options for users. Multiple equipment vendor sites and applications portability all imply a growing need for the management of the interface between the application need and its implementation. This is an opportunity for systems operations vendors.

Finally, one of the most important operational issues for systems operations vendors must be human resources. This is important from the aspect of securing the key management, technical and marketing people to provide the service and also from the aspect of the acquisition of staff from the client base. The latter naturally represents an important opportunity to acquire the necessary human resources by a direct transfer of staff.

H Service Opportunities

In order to perceive the full level of opportunity open to systems operations vendors it is necessary to place the service within the broad context of the full software and services market. The reason for this is the overriding need for vendors to be able to meet the developing requirements of their clients. Exhibit II-11 sets out a basic analysis of the market into four levels of opportunity. Professional services systems operations is the basic level of service where only the personnel are provided to operate the clients' system. In the processing services submode the vendor owns the equipment upon which the service is provided and often provides facilities as well. Options exist at both levels to provide the service either on the customer's site or the vendor's site and either for a single customer or multiple customers in the case of the processing services mode.

EXHIBIT II-11



Beyond these basic systems operations services lies the opportunity to provide applications systems support. There appears to be a significant opportunity developing for the provision of third-party maintenance services for applications developed in-house. This is a natural development for the systems operations vendor.

Further support needs can be met by the vendor in what is identified here as extended systems operations. The opportunity here is for vendors to expand their service coverage into areas like:

- Network Management
- Disaster Recovery Services and Back-up
- Consultancy

To match these opportunities, vendors need to maintain considerable flexibility in the face of the users changing requirements. The development of the partnership mode of operation will greatly assist this process. These opportunities will not be available to those vendors who simply wish to maintain the status quo and offer narrowly defined and rigid service products.

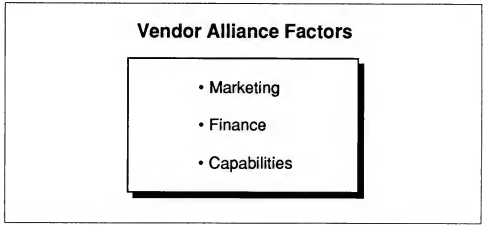
The extensive range of individual service components that constitute a client's overall systems operations requirement—elements like equipment and software installation and problem management—open up the possibility for an incremental approach to equipment maintenance organisations which already have the base support infrastructure in place for hardware maintenance.

I

Vendor Alliances

An important development in the systems operations market in Western Europe is that of partnerships between vendors. It is likely that this will become an increasingly attractive strategy as vendors seek to take advantage of the growing opportunity for systems operations services. The motivation for their development is summarised in the three factors listed in Exhibit II-12.

EXHIBIT II-12



Alliances will often have clear marketing goals. An alliance can assist in gaining access to markets that would otherwise be out of reach or require unrealistic levels of finance. An alliance can bring together the key contacts and local or specialist market knowledge required for successful market penetration or development.

The financial aspect, as referred to above, is clearly a major factor, few companies can afford the costs of developing all of the marketing opportunities available to them. Additionally an alliance may represent a means of controlling operating costs where an alliance can be formed with an organisation having a lower cost structure to fulfil some vital part of the overall systems operations contract. This could be of particular importance in situations where the vendor needs to provide an international service.

Another key factor that may motivate the need for an alliance is access to specific capabilities. An alliance may just serve to augment internal capabilities. Possible capability areas that systems operations vendors might seek to acquire or just supplement through an alliance could include:

- Network management.
- Equipment maintenance.
- Disaster recovery services.
- Applications maintenance.
- Applications development.
- Consultancy.

It is, however, important for vendors to understand that many problems can occur in the management of vendor alliances. Some vendors will therefore prefer to remain at arm's length from other vendors and try to achieve benefits of co-operation on a pure sub-contractor basis.

Typical key problems that arise in vendor alliances are short-term performance differences, unwillingness to share key assets and business culture differences. As with the vendor/client partnership, in systems operations vendor alliances can work well where the common objectives are clearly defined, communication is good and the alliance is set up to run independently from the partners.

Market Development

Market Development

A

Overview

Historically systems operations, often called facilities management (FM), has been regarded as a niche delivery mode within Western Europe and has not been considered a significant opportunity. However, towards the end of the 1980s an upsurge of interest in outsourcing the information systems operations activity has developed in Western Europe amongst users and vendors. This has led to the development of a market which in 1990 exceeded $1 billion, as shown in Exhibit III-1, and that is expected to grow strongly over the next five years.

EXHIBIT III-1

Systems Operations Market Forecast, 1990-1995
Western Europe

Subsector	Market Forecast ($ Millions)				
	1989	1990	1991	1990-1995 CAGR (Percent)	1995
Processing Services	725	860	1,025	20	2,100
Professional Services	155	195	245	23	560
Total	880	1,055	1,270	20	2,660

For more detailed data on the systems operations market in Western Europe, reference can be made to the companion volume, *Systems Operations Market—Western Europe, 1990-1995*.

Systems operations involves the operation and management of all or a significant part of the user's information systems functions under a long-term contract. These services can be provided in either of two distinct submodes:

- *Professional Services:* The vendor provides personnel to operate client-supplied equipment. Prior to 1990, this was a submode of the Professional Services delivery mode.

- *Processing Services:* The vendor provides personnel, equipment and (optionally) facilities. Prior to 1990, this was a submode of the Processing Services delivery mode.

Systems operations vendors now provide a wide variety of services in support of existing information systems. The vendor can plan, control, provide, operate, maintain and manage any or all components of the user's information systems (equipment, networks, systems and/or application software), either at the client's site or the vendor's site. Systems operations can also be referred to as "resource management" or "facilities management."

There are two general levels of systems operations:

- *Platform/network operations* - where the vendor operates the computer system and/or network without taking responsibility for the applications

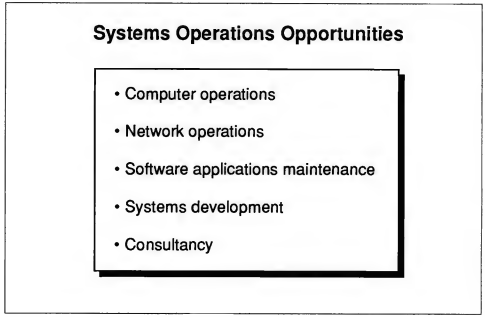
- *Application operations* - where the vendor takes responsibility for the complete system, including equipment, associated telecommunications networks, and applications software

Systems Operations is a new delivery mode introduced in INPUT's 1990 research programme. It was created by taking the Systems Operations submode out of both Processing Services and Professional Services. No other change has been made to the delivery mode definitions, and the total forecast expenditures for these three delivery modes are identical to the total forecast expenditures of the two original modes before the breakout of Systems Operations.

The full scope of opportunities available to vendors in the systems operations market is indicated in Exhibit III-2. Systems operations vendors are well placed to develop their portfolio of services beyond the operation of the platform and its applications to include systems develop-

ment services and consultancy services. Indeed there is some evidence that involvement in IS strategic consultancy is becoming of key importance in securing systems development and consequent systems operations business. CAP Gemini Sogeti's involvement with United Research and its acquisition of the MAC Group, CSC's Index Group and the success of Andersen Consulting in exploiting its position in management consultancy into the IS area, are evidence of this trend.

EXHIBIT III-2



The most significant distinguishing characteristic of systems operations services in comparison to other computer services is the element of management. Systems operations is a management service, the earning of a fee for managing on behalf of the client:

- Information systems people.
- Information systems equipment.
- Information systems facilities.

The upsurge of interest in the outsourcing of systems operations is manifested in a number of ways. Increasingly vendors report that they are finding that users understand the concepts and benefits of systems operations and that management, including IS management, is becoming less emotional in its antipathy to external assistance in the operational management of the information systems. Certainly there is evidence of

increased demand for systems operations services within the European market, as is evidenced by the incidence of major contracts such as that for the Varity Corporation (Sema Group) and for Disneyland France (GSI).

Complementary to this increasing interest in the user community has been the response of vendors to this developing opportunity. Many more vendors now claim to offer systems operations services, generally using the term "facilities management."

Major organisations like Andersen Consulting, CAP Gemini Sogeti (through its Hoskyns affiliate) and Volmac are entering the market. Mercedes Benz has set up Debis Systemhaus not only to provide services to the group companies—Mercedes Benz, AEG and Deutsche Aerospace—but also to offer systems operations services on the open market. Additionally, major equipment vendors—notably IBM, Digital and Unisys—have entered the market.

B

The Market Environment

The current interest in outsourcing information systems operations is being caused by a variety of factors, some within the overall economic environment within which users operate, others specifically related to information technology and the way in which it is used. These various factors are described below.

1. Economic Environment

The term economic environment is used here to refer to the complete external situation within which an organisation must operate and respond, both tactically and strategically, if it is to survive. Information systems based applications are increasingly an important part of that response. The external environment is the instigator of the need for change that affects first the organisation and subsequently its information systems. Exhibit III-3 summarises the main agents of change affecting European organisations.

Few industries are free today from international impacts. Market barriers are being removed, particularly within Europe in the development of the post-1992 single market, creating new opportunities and permitting the entry of numerous new competitors. Today's information systems strategy must:

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

EXHIBIT III-3

Information Technology Driving Forces

Industry	Organisation	Information Systems
Globalisation and the single European market	International opportunities and competition	International processing requirements
De-regulation	New opportunities and increased competition	New application requirements
Specialisation	Core business and functions	Strategic systems
Pace of change	Structural change	Rapid response and deployment
Integration	Intra-organisational relationships	Intra- and inter-organisational systems

Deregulation in the telecommunications, banking and finance and insurance sectors is another factor affecting the overall economic and business environment. It has already had a dramatic impact on the information systems needs of the organisations in these sectors as well as having far-reaching effects on the overall business environment.

The failures of the merger/acquisition explosion of the 1980s are causing senior management to focus on the core of an organisation's capabilities. The result is a more specialised and focused organisation that emphasises what it does best. Not only are organisations 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 computer centre. Information systems programmes must:

- Concentrate on strategic systems that support the critical functions.
- Provide the most cost effective alternative for secondary systems requirements.

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 that pace. In the 1970s it was acceptable to take three to five years to build a major new system. Today is can be assumed that in three years the priorities will be different, the organisation will be structured differently and it is therefore likely that the system will not meet the new requirements.

- Today's IS programme must be prepared to react rapidly to unplanned requirements, large or small.

- Doing the routine is important, but doing the unplanned is the measure of success today.

Competing on a global basis, specialising as a source of competitive strength, and responding rapidly to change all drive today's critical requirement to integrate all aspects of an organisation. Since the core of integration is the flow of information, the impacts on the IS programme are extensive.

- Internally, the information network must support the flow of the organisation. Today's applications are described as large, complex, integrated and cross-functional.

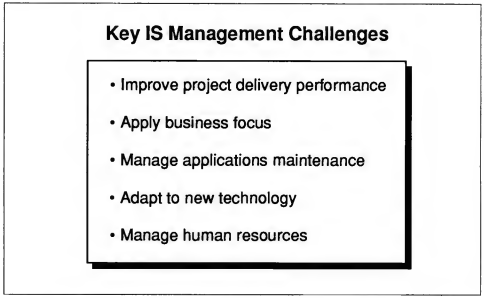
- Externally, today's IS programme must create inter-organisational systems, for example through the introduction of electronic data interchange (EDI) systems.

No large business or organisation is free from unexpected significant change today. Mergers, acquisitions, divestitures, management buyouts, and reductions in work force and levels of management 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.

2. Information Systems Management Challenges

The new and changing organisational needs are just one of the forces challenging information systems managers. Business executives and administrators are also seeking effective returns on their IS investment. Exhibit III-4 lists the key challenges for IS managers in today's more exacting environment.

EXHIBIT III-4



Achieving an effective return on IS investment implies a need for improved project delivery performance. The delays and cost overruns that have so frequently occurred in the past clearly indicated less than adequate performance, exacerbated by the implementation of application systems that have in practice had limited utility.

Software development methodologies have been presented as the solution to these problems. While undoubtedly these methodologies and the appropriate software tools through which they are in practice implemented have achieved success, too frequently they are seen as purely a technical solution. Applications must be developed with a clear linkage to the business needs. Quality assurance requirements can degenerate, for example, into a pure enforcement of standards and ignore the external realities of the application. Advances in software technology, like 4GLs and relational database management systems, have also created quality problems, for example, serious degeneration of system response times.

Another important challenge is that of applications maintenance, which absorbs a very considerable proportion of in-house development staff time; estimates have been put forward for anything between 50% and 70% of total in-house resources being dedicated to this task. Additionally IS managers face increasing technology challenges. Large user organisations have been slow to relinquish the perceived power inherent in a centralised mainframe system. Downsizing is now becoming a very serious issue for many companies.

Staffing or human resources issues are also a key challenge for IS managers. In many IS departments staff turnover is higher than in the rest of the organisation despite separate pay structures designed to offer higher compensation to retain staff longer. It is often felt that IS personnel are more loyal to their "profession" than their employer.

A common complaint is that IS staff are more concerned with technical issues, working on an advanced software product to gain personal experience perhaps, than with the business aims and application needs of the organisation that employs them. Another problem is the lack of communication that so frequently occurs between computer professionals and those who understood the business needs, exacerbated by jargon that turns systems issues into technical issues. This is not a trivial issue, as is evidenced by the case of system development methodologies originally conceived to be a business approach to computerisation. These methodologies have become repositories for techniques, and these techniques then become more important than the methodology. Discussions about the merits or otherwise of design methods through use of terms such as structure, cohesion, entities and coupling, have made the methodology incomprehensible to many end users who are asked to approve the system design.

IS staffing can thus exacerbate the overall IS performance challenge where personnel cannot understand or relate to the overall business application requirement. A potential benefit of outsourcing to client management is the removal of the entire IS function from the organisation's payroll.

The need to get results from information systems, not just a return on an investment or an improvement in project schedules is leading to the development of longer relationships with external vendors. Key to successful fulfilment of corporate IS goals is the bridging of business application requirements and the technical competence to implement the solution. The information services vendor must have therefore a deep understanding of the client's operation and be able to act as a long-term repository of IS experience. The complexities of modern systems are making short-term contractual arrangements with third parties extremely difficult to manage.

Another important driving force for systems operations, referred to above, is that of the increasing complexity of information technology. Thus whilst it is absolutely necessary and desirable to have staff who can apply the technology to the business aims it is also necessary to have staff who are competent to select and utilise the most appropriate products and methods to achieve those objectives.

Important information technology challenges facing users include:

- Increasing complexity of operational management systems software.
- Technology change as manifested in downsizing.
- Communications network operations.
- De facto and de jure standards.

Information systems are becoming more complex and more difficult to operate. Individual system units are more reliable, user interfaces may be more simplified but when disparate units are connected in cooperative processing modes and communication networks, the complexity is vastly increased.

3. Outsourcing

The overall economic situation and the specific information systems challenges, both management and technological, are conspiring to change the environment within which information systems are provided. It is becoming a very different environment from that prevailing a few years ago. Exhibit III-5 summarises the principal characteristics of the changed IS environment anticipated for the 1990s:

EXHIBIT III-5

Information Systems Characteristics for the 1990s

- Complexity of IT solutions
- Size and length of commitment
- Breadth of responsibility assumed by vendor
- Partnership versus supplier/subcontractor
- Professional services component
- Systems management

- Today's use of information technology results in complex solutions, not individual applications. Yet the user expects them with faster delivery than ever before.

- The size and length of the commitments that buyers (users and information systems) are willing to make are much larger. The focus is on solutions—not the bits and pieces that have been the general buying patterns of the 1970s and 1980s. The buyer today turns to a single purchase point, a full service vendor who can deal with a complex problem.

- The vendors who are leading the way in the changing information systems and services market have also changed.

  - They are now ready, able and willing to take on a broad set of responsibilities and to invest in the relationship with the client.

    They are interested in long-term versus short-term relationships with their primary customers. The goal is a partnership—not a subcontractor relationship—that provides lasting client relationships and account control. This partnership makes the vendor's investment possible and of mutual value.

- The typical outsourcing relationship includes a much greater service element than before.

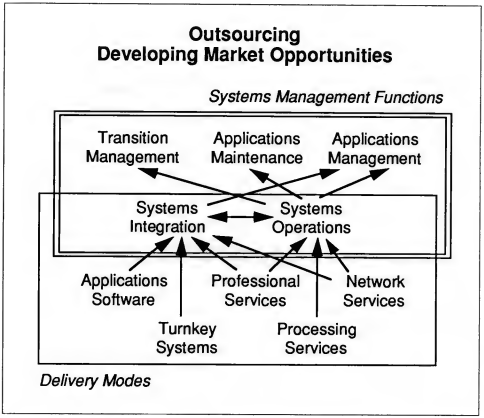
  - First, there is a large component of professional services as the buyer looks outside for expertise as well as technology solutions.

  - Second, the vendor is providing a significant management component that was simply not provided previously. The relationships are being formed at a much higher level of client and vendor management.

Outsourcing is thus becoming the theme for the early 1990s within the information systems arena, just as systems integration was the new theme of the late 1980s. Information systems management is being challenged by its organisational management and the vendor community to look differently at the process of buying products and services.

Outsourcing is causing some fundamental changes in the structure of the information systems and services market. Exhibit III-6 provides a comparison between the industry modes as used by INPUT to project the industry and the market opportunities developing out of this outsourcing trend.

EXHIBIT III-6



- Over the past three years INPUT has modified its delivery mode structure to identify systems integration and systems operations as emerging and unique delivery modes. They represent significant shifts in the professional services and the processing services markets respectively.

- Systems integration and systems operations, plus additional combinations of products and services from all of the delivery modes, represent opportunities for vendors in the 1990s. Applications management, transition management and applications maintenance represent emerging opportunities for information systems to draw on expanding vendor capabilities.

  - Users can improve response, cost-effectiveness and planning.

  - Vendors can capture more business opportunities.

C

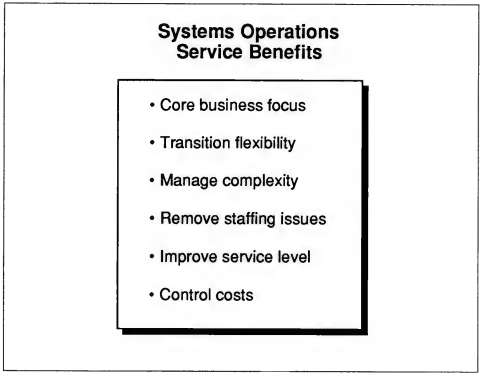
The Rationale for Outsourcing

The rationale for outsourcing the systems operations function is the subject of fierce debate. There are many strong trends in the IS environment, as discussed in section B above, that are leading users to focus on their core business and seek vendors who are prepared to run their information systems for them. On the other side of the argument, there is strong resistance to the idea of apparently losing control over an important support activity.

1. Systems Operations Service Benefits

The principal arguments for contracting out systems operations are summarised in the list of benefits shown in Exhibit III-7. It is important to recognise that business benefits rather than just technical benefits are an important aspect of the motivation to use systems operations services.

EXHIBIT III-7



A key business benefit of systems operations is that it allows more management attention to be given to the core business. The apparent paradox implied by the increasing criticality of information systems to the core business is dispelled by the realisation that computer operations are increasingly a utility-like service. The allocation of significant executive time to the management of systems operations blurs the focus

on core business issues. In an increasingly competitive and commercially challenging environment it is ever more imperative that senior executive resources be devoted to the strategic and tactical business issues.

Another important business benefit of systems operations is in handling the information systems transition caused by companies engaging in mergers or acquisitions or by other reasons such as financial difficulties, and internal restructuring. Outsourcing systems operations is an attractive option under these circumstances. A systems operations contract can give an end-user much greater flexibility in handling the transition in the business since many more information systems options are available. Systems that are inefficient or inappropriate can be more readily run down or be more readily rectified. At the same time the systems operations vendor can assist in the development and management of new systems. Further, not only does this external contracting make changes in information systems easier to adopt but allows those changes to happen much more quickly. A user can contract the vendor to take over existing systems and thus free in-house resources for new systems; alternatively the systems operations contract may concern the new systems. In a transition environment it is particularly important that management concentrate its focus on the core business challenges; systems operations contracts give executives this benefit together with additional flexibility.

The increasing complexity of modern information systems demanding the integration of computer and communications equipment and handling more and more critical applications is frequently exceeding the ability of many information systems organisations to develop and operate them. Systems integration vendors are addressing the development opportunity that this presents, and systems operations vendors are addressing the ongoing operations support opportunity.

To users unable to attract or retain expert staff of sufficient calibre to meet these increasing levels of systems complexity, systems operations contracting provides a solution. It removes the information systems staffing issue. Frequently organisations find that information systems staff are difficult to find, particularly for specialist skills, and difficult if not impossible to integrate into companywide compensation schemes. Additionally it is also difficult to offer all staff a sufficiently challenging career progression, particularly in the post-development phase.

Another important potential benefit of a systems operation contract is an improved level of service. A vendor can bring a greater, more extensive level of experience to bear on running the client's system, thus resulting in the provision of a better service. This is of significance as many organisations are increasingly focusing on service-level performance. Internal departments may be less able to meet the requirements for

reasons of staff experience and knowledge. The concept of actually contracting for a given level of service within a systems operations agreement allows for a higher degree of management focus, control and problem resolution than would be the case for an internal agreement. A further service benefit for a systems operations client comes in the area of back-up and recovery services. A vendor can more readily provide these kind of services which are probably prohibitively expensive for most organisations to provide themselves.

Perhaps the overriding appeal of a systems operations agreement lies in the area of cost control. Systems operations contracts can offer the considerable benefits of firstly reducing costs and then stabilising them. The vendor's processing power capability provides the opportunity for achieving economies of scale and passing this advantage on to users in the form of significant cost savings. A vendor gains these economies of scale through consolidation of processing power, specialisation and enhanced purchasing power over suppliers.

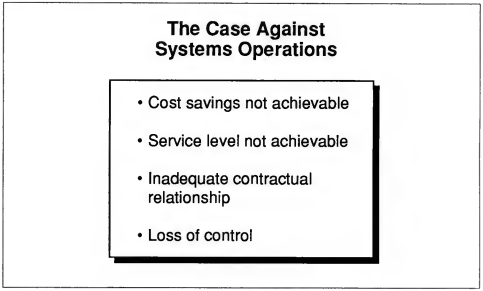
However, from the user aspect, it is not just the initial reduction in information system costs that is important but the stabilisation of those costs over a period of time. Many users will run in-house information systems departments as cost centres or even profit centres. However, they frequently meet significant difficulties in creating a costed service concept internally that really works. Vendors can provide clients with objective measures of IS costs thus greatly increasing their sense of control over their computer operations.

2. Market Inhibitors

Despite the rapidly increasing levels of user interest in systems operations contracting in Europe it needs to be recognised that in overall terms it is still a small market. Further it also needs to be recognised that considerable levels of resistance and doubt exist within the minds of decision makers responsible for information systems purchasing. The principal points in the case made out against systems operations contracting are summarised in Exhibit III-8. It is interesting to note that the case against systems operations is generally tactical rather than strategic in nature, relating to fundamental technical issues and to a cultural perspective regarding outsourcing in general.

Thus an important argument against systems operations agreements will be disbelief that it can save costs. Although there are undoubtedly situations where the opportunity to save money is limited, it is more likely that this is an emotionally based response that does not take into account the broader needs for change and new development. Possibly it is a view based on an incomplete understanding of the true costs of an organisation's information systems. Additionally it is a view that may be

EXHIBIT III-8



influenced by an experience of using processing services. In these situations buyers may be conditioned to believe that a vendor's profit margin must be a significant contributor to the costs of a contract. Many users of processing services have in the past brought systems in-house in order to effect cost savings.

Another important argument will concern service quality level. There will exist a belief that the "right" level of service can only be provided internally. The argument will be that the need on the part of the vendor to serve multiple clients will diminish the service level provided to any one client. Users believe that it will always be the vendor's priorities, not those of the client, that will prevail in any given situation. This belief would be more likely to be held by a relatively small organisation that would argue that the vendor will always have larger, more important clients whose needs will take priority.

Difficulties in negotiating a satisfactory contractual relationship with a vendor will also be cited in the anti-systems operations outsourcing argument.

The only real strategic argument put up against outsourcing systems operations is the critical issue of control. In many situations, however, more control can be exercised through outsourcing if one accepts the replacement of internal management by vendor management. For cultural or emotional reasons, this is a difficult transition for many executives to make. An allied concern would be the difficulties of reversing a systems operations contract and bringing the IS activity back in-house.

Other issues that might be raised as part of the argument against systems operations agreements would include personnel and organisational issues, such as concern over the information systems staff, their loyalty to the organisation and their future careers. An organisation might also perceive difficulties in making the transition from running a large IS organisation to a much smaller unit responsible for managing the relationship with the vendor. Many individuals might be reluctant or unable to make such a change themselves.

In summary it can be stated that the argument for systems operations contracting is fundamentally a strategic argument influenced by business considerations. The case against systems operations contracting is based largely on technical, emotional and cultural attitudes towards information systems.

Vendor Challenges

Vendor Challenges

As the systems operations market has moved from a niche position to centre-stage in terms of general awareness amongst the computer fraternity so have vendors entered the market and increased the level of competition, for example processing services vendors perceiving an opportunity to sell their services in a more marketable form. Major global vendors like Andersen Consulting and CSC have also entered the Western European market and CAP Gemini Sogeti will undoubtedly leverage Hoskyns' experience in this area in the future. This is creating a particular challenge for the established vendors already well aware of the difficulties inherent in identifying prospects and completing the sale.

To function effectively in an increasingly competitive market, systems operations vendors face a number of important challenges. The research conducted for this study indicated two broad areas of importance:

- Marketing
- Service Performance

The marketing challenges facing systems operations vendors are discussed in section A, below under the headings "improving sales performance" and "competitive positioning".

Demonstrating operational service performance is obviously key to the retention of existing clients and the attraction of new business. The service performance issues of major importance identified are:

- Developing the client relationship.
- Operational efficiency.
- Maintaining technological capability.
- Developing the human resource capabilities.

The vital issue of client relationships is addressed in section B of this chapter. Operational efficiency and technology issues are discussed in section C, and human resource issues in section D.

A

Marketing Challenges

1. Improving Sales Performance

It is clear that many companies recognise that they face considerable challenges in the area of sales performance. The principal reasons for this are:

- Sales parameters for systems operations prospects are difficult to define.
- The requirements for successful sales personnel are different from those required of many other service delivery modes.

One of the most important marketing challenges facing any organisation is the cost effective identification of prospects. This problem is particularly acute for systems operations vendors since few clear market identification factors or sales parameters seem to exist. There is no clear cut means of readily identifying potential systems operations clients. Hoskyns' productisation of systems operations services for systems transition as their "Crossroads" service is probably the only example in Europe of a way of applying specific market parameters, for this purpose. Generally the one fundamental theme that has been the most significant factor in growing systems operations contracts has been the financial motivation, or put more bluntly systems operations contracting has had an appeal as a means of reducing costs.

Nevertheless, careful examination of the market does reveal some clues that help in focusing on opportunity areas and market definition. Vendors must recognise, however, that there exists no "rule-book" for systems operations and that each client or prospect must be examined individually with great care. The salesforce must constantly be looking for those special circumstances which can be exploited to create the systems operations sale.

The obvious point concerning the willingness of the executives and managers concerned to consider outsourcing systems operations as an attractive option needs to be made. Given the welter of possible arguments for and against outsourcing the subjective attitudes of the makers needs to be sounded out and evaluated.

Three important issues stand out as candidates for careful examination by the systems operation sales person:

- Is there a significant cost argument in favour of the systems operations solution?
- Is it practical to take over the clients' IS operation or do there exist technical or organisational difficulties which could impede the sale or lead, in the event of success, to profitability concerns?
- What is the role or significance of the IS operations in question within the clients' value-added chain?

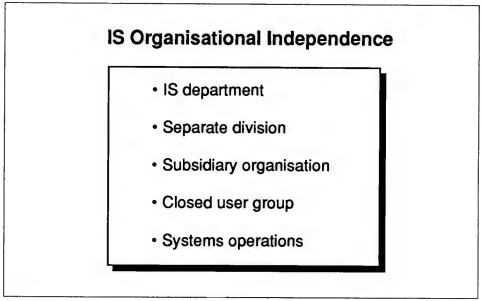
Cost effectiveness is an important issue in its own right which is addressed elsewhere in this report. As far as prospect generation/evaluation is concerned confidence must exist that a price competitive proposal can be made that will subsequently generate a profitable contract. In the European market a cost reduction of approximately 20% over current IS costs is generally a *conditio sine qua non* for obtaining the business.

A guide to the practicality of taking over a client's IS operations is given by the degree of separateness of the IS functions within the client's organisation. This idea is illustrated in Exhibit IV-1. The development of IS organisations has often followed the hierarchy listed in this exhibit. Starting with the establishment of a separate department to handle information systems development and operations, the IS function often grows more and more distinct becoming first a division (implying the move from cost centre to profit centre), then a totally separate subsidiary organisation. A closed user group (CUG) is an alternative to the subsidiary company approach and represents a halfway-house to the full outsourcing of the systems operations function. The major joint airline systems AMADEUS and GALILEO are examples of this approach. The further advanced in this hierarchy, the easier it becomes organisationally to effect the transfer to the systems operations mode. Importantly, the greater the degree of separateness the more evidence there is of a potential willingness to outsource to a third-party vendor.

Thirdly is the issue of the significance of the IS operation to the potential client value-added chain. Essentially two characteristics emerge in this analysis:

- The degree to which IS is integrated into the organisational function(s).
- The subjective evaluation of the utility nature of the system.

EXHIBIT IV-1



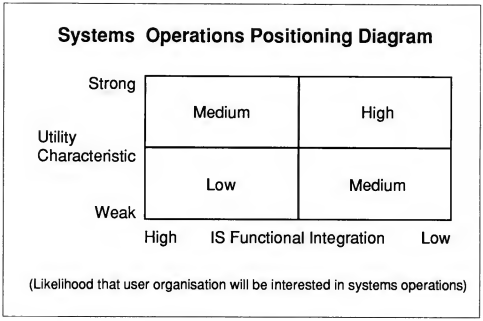
For example a manufacturing company will utilise IS in the production process, it is not a part of the product eventually consumed by the customer. IS may be perceived by the company's executives as "strategic" and representing a high value-added contribution to the company in terms of competitive advantage and profitability. It might however, be viewed as simply a utility service for which a more cost-effective solution might be provided by outsourcing.

At the other end of the spectrum a service organisation will utilise information systems that are directly involved in the provision of the ultimate service to the consumer—for example, a banking terminal, a supermarket check-out terminal or an airline reservation terminal. Here IS is highly involved in the organisation function. Again however, under different circumstances management could view some systems as being "strategic" and delivering competitive advantage and others being essentially utility services which could be outsourced.

This analysis can be summarised in the positioning diagram shown in Exhibit IV-2 which offers a method for assessing potential clients according to the criteria outlined above.

Where IS is both highly integrated into an organisational function and considered to be making a unique contribution, then the expectation for outsourcing IS activity can be considered low. In contrast, where neither of these conditions apply the opposite would be the case. It is most important to remember that these are not hard and fast rules and all sorts of exceptions will occur. A framework such as this simply provides some guiding principles for establishing a better understanding of the market.

EXHIBIT IV-2



Interestingly, an analysis of INPUT's database of systems operations contracts broadly supports this positioning, as is shown in Exhibits IV-3 and IV-4.

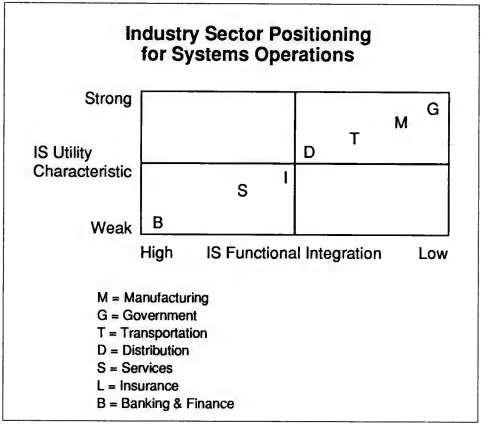
EXHIBIT IV-3

Western European Systems Operations Industry Sector Analysis

Industry Sector	Percentage of All Contracts Analysed	IS Functional Integration	IS Utility Characteristics
Manufacturing	35	Low	Strong
Government	35	Low	Strong
Transportation	5	Medium	Medium
Distribution	5	Medium	Medium
Services	10	Medium	Medium
Insurance	5	Medium	Medium
Banking & Finance	5	High	Weak

The two most populated sectors in the analysis are manufacturing and government. Both of these fit the systems operations positioning as shown in Exhibit IV-4. In both cases IS has a high utility characteristic in respect of the fundamental *raison d'etre* of those organisations, namely the supply of products and the administration of a country. At the opposite extreme a bank's IS function is becoming highly integrated into the delivery of the service to the client and its systems are probably becoming increasingly strategic and would not be considered as being simply a necessary utility service.

EXHIBIT IV-4



Of course within any one industry and within any one organisation there will exist utility applications and strategic applications. Thus in the U.S., for example, Banking and Finance is an important sector for systems operations due to the high incidence of contracts for back-office processing. It is the front office applications that are considered strategic. Thus whilst the Midland Bank in the U.K. has been heavily committed to the development and operation of its own network it has also contracted with EDS to process its Switch electronic debit card transactions. It is also necessary to remember that the provision of the information system platform (the source of processing power) can be more readily viewed as a utility service than the applications that run on it. Vendors need to search out these opportunities.

Some further characteristics of likely candidates for systems operations contracting are listed in Exhibit IV-5. Clearly the systems operations vendor is needing to search for organisations that are facing challenges, whether financial or organisational. Those challenges imply the need for change, and change breaks the status quo allowing the systems operations vendor the opportunity to offer possible solutions.

EXHIBIT IV-5

Characteristics Indicating Potential for Systems Operations

- Very fast-growing organisations
  - Demands cannot be met internally
  - Need to merge acquired IS operations
  - Need to expand geographic scope
- Organisations with major structural changes
  - Divestitures
  - Management buy-out situations
- Organisations in trouble
  - Financial problems
  - Reorganised, consolidating firms
- Medium-sized organisations
  - Inadequate development resources
  - Behind the technology curve
  - Limited investment capital
- Organisations with disparate architectures
  - Want to change architecture
  - Have incompatible data centres
- Organisations refocusing on their core business
  - Want to concentrate on what they do well
  - Need to leverage scarce resources

However, it is clear that to exploit these opportunities effectively a different type of sales person is required than that of many other service delivery modes. A systems operations sales campaign requires the identification and understanding of the real IS issues and problems for a client, which in turn implies an understanding of the business issues. Most importantly the response to the client has to be unique, it has to be a flexible response and not just a standard solution.

The sale of a systems operations contract is often a long and difficult process culminating almost inevitably in a protracted contract negotiation stage. Some vendors have cited periods of up to one year for the contract negotiation stage alone.

The key considerations in developing a systems operations service contract can be itemised as:

- Service specification
- Service level specification
- Accommodation of change
- Service costs

The contract negotiation must specify the nature and scope of the service and the required level of service. Most importantly it needs to take account of the fact that the client's needs will undoubtedly change over a period of time. The vendor will no doubt wish to potentially extend the scope of the service in the future to increase revenues from the account, and the client will want to ensure that the changing needs of the business can be accommodated.

Many potential clients view the whole question of outsourcing systems operations as an emotional issue, as something that potentially threatens their management hegemony. Contracting with a third party to run the information systems function implies loss of ownership and loss of employees. It can also have connotations of defeat and failure. Conflicting opinions will undoubtedly be manifested among a potential client's senior executives and strong resistance can be experienced from the existing in-house IS staff. Addressing this whole issue of control, demonstrating to and persuading a client that outsourcing systems operations is actually a way of gaining more control rather than less, is a central challenge for the systems operations sales person.

Consequently the systems operations sales person needs to be as much business oriented as technically oriented, in effect needs to be a hybrid. Sales personnel must be able to make approaches to a company at a senior level and thus understand and interpret the business arguments for

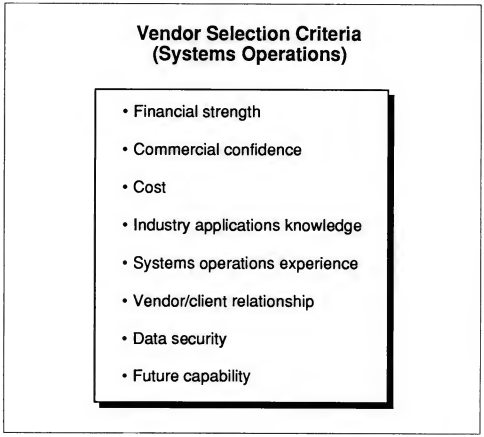
outsourcing as they apply to each individual prospect. However, they will almost certainly meet resistance on the part of IS managers to the outsourcing of systems operations and must therefore also be able to deal effectively with that resistance. Their general knowledge and understanding of the technical issues is thus also an important factor in the systems operations sales process.

The concern with the clients' problem must be manifested in a "consultancy" sales approach in opposition to a "product" sales approach. The sales personnel represent the first stage in the development of the partnership between the client and the vendor; they must therefore establish a climate of confidence, security and trust with the target client.

2. Competitive Positioning

One of the major factors in coping with a confused or chaotic market, and one with a high level of competitive activity, is that of establishing a clear market position and image. It is therefore important for vendors to formulate a coherent view of the significant criteria used by clients for vendor selection. Exhibit IV-6 summarises the key factors that vendors perceive as of most significance to prospective systems operations clients.

EXHIBIT IV-6



Vendors believe that it is very important to be able to demonstrate financial solidity and stability to a prospective systems operations client. The strategic nature of systems operations services places considerable weight on this factor.

Although cost is very important, the client is usually clear that a long-term relationship is being developed with the vendor. Consequently an overall assessment of financial strength combined with commercial confidence in the vendor are thought to be of prime importance.

Different pricing approaches for systems operations is one strategy for potential competitive differentiation. The principal pricing approaches can be defined as:

- Fixed-Price/Fixed-Period
- Transaction Volume Pricing
- Resource Utilisation Pricing
- Cost Plus Pricing

Larger vendors tend to use fixed-price approaches whilst smaller vendors with a processing services background may favour the other methods. However, there are differences in the interpretation of what fixed price means. A user that is charged on the basis of transactions or resources used, but has both a floor and a ceiling level fixed, will be most likely to consider the service to be transaction or resource based. The vendor, however, may consider the same contract to be fixed-price because there is an upper limit to the amount that can be charged. INPUT perceives that the trend is towards fixed price commitments, given the cost constraining appeal of systems operations contracting.

Vendors also perceive a high level of user interest in their industry knowledge. As has already been referenced, systems operations contracting has strategic implications for an organisation. The capability of the vendor to understand the operational business requirements of the client is therefore vital. In response to this criterion vendors do seem to be placing emphasis on an industry marketing rather than a service sector marketing approach. The needs of the government sector would be a good example of the requirement for specialised vendor knowledge of the target market applications.

With many new vendor entrants into the systems operations market it is not surprising that leading vendors place considerable emphasis on the capability to demonstrate practical experience—in particular, practical experience of running systems operations for similar organisations in the same industry.

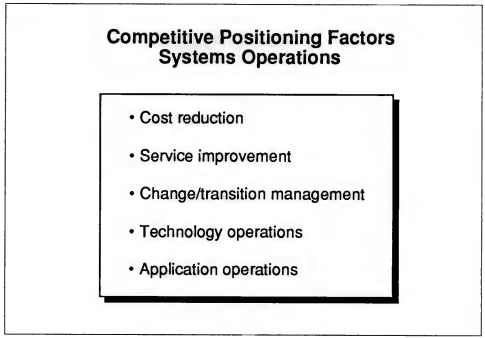
Some vendors also emphasise the people aspect of the relationship, the need to establish a common view or empathy between senior management of both the client and the vendor. Clearly an emphasis on this aspect will do much to alleviate any anxieties concerning control over the management and future direction of the systems operations activity.

Security of the client applications and data is recognised by vendors as a major client concern and consequently an important selection criterion, particularly in the finance sector. The concept of remote operations on a data centre belonging to a third party creates security concerns for the same users. This concern can imply considerable expense on the part of the vendor to reassure the client of the confidentiality and safety of the applications and the data.

One of the key triggers stimulating demand for systems operations services is that of transition or change. Users need to feel confident that the vendor has the capability to cope with their changing requirements. It has never been more difficult to predict the future and thus some premium is placed on selecting a vendor who will offer flexibility.

Clearly not all of the above criteria can be easily used as competitive positioning factors; Exhibit IV-7 summarises those that probably represent the key areas around which marketing strategies can or should be built.

EXHIBIT IV-7



B

The Client Relationship

The client/vendor relationship is of particular significance to the functioning of systems operations contracts. The client is placing a great deal of reliance on the vendor to support information systems requirements. From the vendor's perspective, high priority must be given to the activity of developing the client relationship initially and then subsequently managing it throughout the life of the contract.

As was noted in the previous subsection, vendors have identified the need for development of a strong relationship with the client during the pre-sales phase as an important selection criterion.

This area involves two important aspects which are discussed in this subsection:

- The general management issues inherent in the client/vendor relationship.
- The legal/contractual framework within which that relationship exists.

1. Management Issues

The relationship between the client and the systems operations vendor is often referred to as a "partnership" rather than a business relationship. Some vendors prefer to emphasise the degree of control that the client has over the relationship.

Whatever it is called it is clearly important that the client feel comfortable with the relationship that has been developed. This emphasis on the client relationship was summed up by one vendor interviewed in the course of the research who said:

> *"We develop a very special relationship with the client and view our service as the capacity to follow the client and anticipate all its human resource requirements."*

The nature of a systems operations contract is a long-term commitment typically several years in duration. Whilst important legal considerations do exist it is clear that the relationship must go beyond the strict definitions implied in a contract. Information systems needs and wants change rapidly over time and the client is dependent upon the vendor for at least a substantial, if not the total provision of information systems support.

The implication of this close relationship is that both parties have a vested interest in the success of the enterprise. Systems operations contracts can really only be either win/win or lose/lose situations. It can take a long time to develop the necessary relationship. In the words of one vendor:

> *"We get better at managing the users, and the clients become progressively more satisfied, as we do too. We acquire a better understanding and involvement of the expectations and future of the client. Normally after three years we obtain deeper involvement."*

The vendor's principal management aim must be the creation of a relationship that is tuned as precisely as possible to meet the client's requirements. Key characteristics of the relationship will therefore be:

- Business planning involvement.
- Shared objectives.
- Common focus on the end user.

Involvement in the customer's business planning process is frequently viewed as necessary to ensure the success of an agreement. Vendors believe that unless they can be involved in the customer's planning process, they are not able to apply technology in the manner best suited to meeting the customer's strategic and tactical needs.

Vendors and clients must have shared objectives. The vendor must be willing and able to accept and work to achieve the customer's business objectives.

The vendor and the customer must both accept that the real customer is the end user of the service, not the internal user of the information systems. It will only be through focusing on the needs of the client organisation's customers that effective investments in IS can be made.

Clearly the importance of partnership relationships cannot be left to chance and it is becoming increasingly important that both vendors and their clients adopt objective methods for the measurement of the health of their partnership. Many vendors see the key to the development of an effective partnership as being the management tools that the vendor can provide the client for controlling the systems operations process. Some vendors claim that they will not agree to sign a contract unless a method of control is agreed with the client. It has to be recognised that it is often the lack of internal management capability that creates the need for

systems operations contracts. It is the management skills of the vendor that will determine the success of the relationship. This emphasises the need for business skills as well as technical skills for it is in this area that users are often weakest, as one vendor commented:

> *"Facilities management (systems operations) provides the hybrid managers that the client cannot provide himself."*

The management tools that make the systems operations partnership work are not easily defined. Nevertheless some factors stand out clearly and these are listed in Exhibit IV-8.

EXHIBIT IV-8

Tools for Management of the Systems Operations Partnership

- Open communication
  - Daily, at user level
  - Frequent visit at senior management levels
- Strategic planning
  - Vendor must be part of process
  - User must share key information with vendor
- More than a contract
  - Sharing of risks over time
  - Verbal agreements supplement contract
  - Need for mutual trust

Open communication is essential. Not only must the vendor be taking the pulse of the user on a daily basis, but senior management of both companies must be in constant communication to assure both a smooth start to a project and responsive operations during the whole life of the contract. The vendor is almost certain to have some full-time representation on the client's site in order to maintain this continuous communication between the two parties.

Operating in true partnership mode will also imply vendor personnel being intimately involved in the planning and strategy development for the client's information systems. This implies the vendor being privy to much confidential information, but this is necessary if the vendor is to apply systems resources to the most effective use of the client.

The working arrangements must evolve away from the legal terms of the formal contract toward a true working partnership where both parties are motivated to take risks and assume responsibilities that are mutually beneficial.

In summary, the key points for vendors in the development of a successful long-term client relationship are:

- Create a win/win partnership.
- The vendor has to be proactive in the relationship.
- The vendor has to supply the client with the necessary management capability.
- The vendor has to give the client terms of reference and the tools that the client needs to manage the relationship; this implies the necessary accounting controls.
- The vendor needs to tailor the service to the individual client.
- The vendor has to anticipate the changing requirements of the client and be flexible in response to them.

2. The Legal/Contractual Framework

The view presented in the previous section indicated that success in systems operations comes not from managing the relationship by the strict letter of the contract but by being flexible in meeting client needs through the development of a true partnership with the client. However, vendors must recognise that a legal/contractual framework is still an important area and that problems could result if insufficient attention is paid to this activity.

Although an initial agreement with the client may be arrived at within three months of commencing the sales cycle, the contract negotiating process alone can take between three months to one year. The significance of the contract is to define not just the services and the service quality, but also the migration from the existing situation to the agreed new one, to ensure the control and auditability from the client's point of view, and to define the reversing out procedure in the event of termination of the contract.

Just like any functional specification, a thoroughly prepared contract is clearly of benefit to both the provider and the receiver. Bearing in mind the importance of the client-vendor relationship in systems operations contracts, the contract negotiation is a very good opportunity to lay the foundations for this relationship. As part of the sales process it is an opportunity to demonstrate that the control of the information systems service will be greater under the new arrangements than under the old.

The contract negotiation process can be traumatic for the user, and this should be borne in mind. It is generally advisable, as with any large project to break up the contract into discrete parts wherever possible. This facilitates progress, and increases the possibility of early payment as services are provided.

It will be necessary to establish whether the client wishes to participate in the transfer of side contracts for matters such as existing disaster recovery services, communications and network companies, equipment maintenance agreements, and software product licenses. Standard contracts tend to be a series of exclusion clauses, and it is important for the vendor to specify what the service includes, as much as what it excludes, or risk having to provide free services that are not specified but expected.

In order to protect the supplier of the service as much as to protect the client, specifications should not only specify the nature of the service, but also some performance criteria, which might include availability, service response times, communications and network performance characteristics (clearly indicating dependence on other parties), volumes, delivery of outputs, and documentation and development standards.

One of the key provisions in the contract, apart from specifying the starting point for the service, is to specify a structure and the mechanisms for changes. These will typically include determining the scope of changes under the existing agreement, how they will be instigated by user request, what the change specifications should contain, and how the costs should be specified, and options for the client to obtain a second opinion.

The contract should also indicate a procedure for resolving disputes in the daily organisation and running of the contract. Typically this will involve resort to more senior management prior to involving a third party for an independent opinion. To anticipate disputes over costs, some form of index linking should be built in and the appropriate inflation index should be specified, not only for the existing service, but also for new developments.

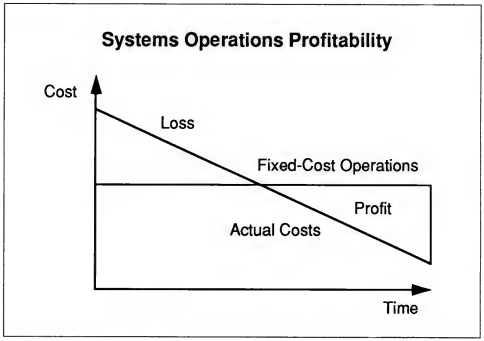
C

Operational Issues

1. Operational Efficiency/Profitability

The overall operational efficiency of a vendor and thus its resulting profitability is clearly one of the most important challenges for a systems operations vendor. Exhibit IV-9 shows a graphical representation of the profitability model for a systems operations contract.

EXHIBIT IV-9



To achieve profitability the systems operations vendor's strategy must be to drive down the costs as quickly as possible. It is possible, as is shown in Exhibit IV-9, that an initial period of loss may need to be sustained whilst the cost reduction process is put in train. Typically within Western Europe the competitive marketplace determines that an initial cost reduction of approximately 20% be demonstrated by the incoming systems operations vendor.

Vendors differ quite considerably in their attitudes to the profitability of systems operations contracts. Some vendors will not enter into a systems operations contract that is not profitable from the outset, whereas others are prepared to take a longer-term view and expect to lose money in the first year. The priorities of the client and consequently the contract negotiation will have a significant influence on the cash flow of a contract. If the client is simply trying to get rid of its IS department as a cost cutting exercise, it will be keen to maximise short-term savings, and the vendor may have to accept a longer term attitude to profitability. Alternatively, clients who are seeking to re-invest in order to update their technology and change their systems architecture will be more willing to invest and are likely to provide additional revenue opportunities as well.

Interestingly, some vendors expressed little concern for the profitability of the data centre itself, since they view systems operations as more of a tactical service than a strategic one. The vendor signs a systems operations contract in order to gain a strategic foothold with the client, and then to use that to leverage profitable services such as software development or software maintenance. Some vendors see the operation of the data centre as a secondary issue, since their prime concern is the acquisition of the client's staff. Systems operations is thus viewed as a means to an end.

One of the key issues for systems operations efficiency and profitability is the location of the facility. Most vendors agree that it is more profitable to concentrate the client's processing load into a central data centre than to run the processing on the client's site. This is because the vendor's site is generally already running at greater efficiency than that of the client, and there are then greater opportunities for economies of scale.

The problem of location can be a sensitive issue for the client. There are cases of vendors pulling out of the bidding process because of the insistence on the part of the client that the facility should remain close to the client's offices. This is particularly true in the case of local government in the U.K., which has been one of the fastest growing sectors of the systems operations market.

Not all vendors agree that the location of the facility is important; one vendor in Germany commented that high city centre property costs had caused many companies to re-locate their data centres out of town anyway, and so that once the contract is signed, the actual location of the facility is irrelevant. However, it is likely that location across national boundaries could be a perceived problem on the part of the client in the short-term, and for some institutions such as banks, there would be legal implications, at least until 1993.

Client attitudes to the location of the processing centre will depend on the nature of the organisation and its applications. Local government organisations are geographically oriented and will therefore choose to have centres within their own territory. Financial institutions and central government departments will be concerned about security and confidentiality; these issues will not only affect location but profitability as well. Consolidation on the vendor site may provide an opportunity for cost savings, but adding additional security features will possibly more than compensate for this.

Critical mass is clearly also an important factor in achieving operational efficiency for systems operations vendors. This is why many vendors are keen to identify and win big contracts. The larger the contract value the greater the opportunity for efficiency gains and consequent profitability. Some vendors have indicated the need for processing centres to be able to offer at least 50 MIPS (millions of instructions per second) as the threshold point for viability.

The whole issue of critical mass will become extremely important as the large vendors try to extend their geographical coverage within and across national boundaries. Systems operations profitability is traditionally obtained by standardising procedures, improving disciplines to avoid reruns, and taking advantage of all the exploitable power. This is achieved best when networking technology can be applied in order to increase the exploitable mass of processing power, and the available human resources.

2. Technology Issues

The need to maintain a high level of operational efficiency implies the need for systems operations vendors to maintain a state of the art technological capability. Some important technology issues for vendors are thus:

- Network capability
- Equipment platform price/performance
- Software development technologies
- Software products
- Open systems.

The development of a strong networking capability is seen by most vendors as being of paramount importance. As indicated in the previous section the capability to connect to the client remotely allows for the efficient concentration of processing power and geographical flexibility. The communication skills that vendors must develop are not just for straightforward data links to a central site but for local-area and wide-area networks. The systems operations of computer networks is likely to become a major opportunity for the 1990s.

Equipment platform price/performance is another important issue for systems operations vendors. A number of vendors perceive a threat to their mainframe based systems operations businesses from the continuing improvement in computer equipment cost/performance and resulting downsizing. However, new systems combining multiple computers within networks are presenting systems operations vendors with new opportunities to handle the ensuing complexity. Nevertheless, vendors will have to change their skill sets and outlook to take advantage of these new opportunities; for example, one vendor interviewed spoke of setting up the concept of a "hotel" for AS/400s to replace the existing large IBM mainframe data centre.

The changes that are taking place in the user's IS environment are complex to manage irrespective of the size of the basic equipment unit. It is this management opportunity which is key to the gaining of systems operations contracts.

For the systems operations vendor concerned with supporting the client's applications, the increasing importance of software development technology is a key issue. CASE tools are increasingly of significance for re-engineering existing client-written applications software as part of the maintenance activity as well as for the development of new software. A systems operations vendor that does not develop the necessary capabilities in this area is thus limiting the scope of the services that it can potentially provide.

It is, however, important to understand that the complexity of implementing CASE tools is creating more opportunities. For example, user organisations' failure to solve their development and maintenance problems opens another opportunity to approach the systems operations market, systems operations being in this instance a supplementary service to the applications development and maintenance business.

The use of the software products of third parties by the systems operations vendor is currently emerging as an area of some controversy. The legal dispute between CA (Computer Associates) and Hoskyns (part of the CAP Gemini Group) over license fees for software products provided to systems operations clients remains unresolved.

The issue is the fee to be paid for multiple use of a product by a systems operations vendor either on one central data centre or on multiple sites. It is not yet clear whether it would generally be advantageous for a systems operations vendor to offer its own software products. It is much more likely that the systems operations vendor will create collaborative commercial agreements with product vendors in order to meet the client's requirements. This situation also opens up the possibility for software product vendors in specialist markets to enter the systems operations market.

The impact of the market moves towards open systems on the systems operations business is unclear. The advent of open industry standards providing users with greater flexibility, more options and applications portability is increasing the complexity for many users of actually achieving systems developed and operated in-house. The plethora of different de jure and de facto standards (SAA for example) is in the view of many systems operations vendors aiding the development of the market. The resulting confusion and uncertainty amongst users is a powerful argument for bringing in an outside organisation to take over the whole responsibility for the information system.

Increasing numbers of options, multiple equipment vendor systems and portability of applications all imply a significant need for managing the interface between the application and its implementation. It is the systems operations vendor that can address that need.

D

Human Resources

The previous sections in this chapter have addressed the various marketing and operational challenges of importance to systems operations vendors. A key factor in actually meeting these challenges is assembling and developing the human resources that can deliver the desired level of service to the client.

It must be remembered that one of the key client reasons for outsourcing systems operations is the lack internally of the required skilled personnel, in particular of people who have the expertise to address complex systems integration and systems operations management. It is, however, important to understand that many users will not recognise this lack of personnel; they will have difficulty in assessing what their real human resource requirements will be in the future. Problems in this area are not planned for but stumbled over.

The principal human resource challenges for vendors include:

- Taking on client's staff.
- Identifying and developing the requisite skills.

A significant feature of many systems operations contracts is that the client's staff are taken on as employees as part of the contract. The normal staff induction problems are given additional dimensions by the number of people being taken on, added to which the emotional attitudes of many staff can be difficult, since they have been taken over rather than having applied to join the vendor voluntarily.

As well as taking on staff, the vendor will also often have to take on legally binding commitments that were made by their previous employers. This can be difficult in some European countries. In the Netherlands, Sweden, and Germany, employer burdens can be considerably higher than in other countries.

There are considerable practical differences between working for an in-house information systems function, and working for an external vendor. Staff will be required to make mental adjustments, and this process has to be managed effectively. Considerable management effort is necessary to identify the suitability of the staff to their new situation and to anticipate and resolve problems. Hiring, training and providing career opportunities for information systems staff is, and has always been, a problem for many companies. This is particularly true for operations personnel.

Systems operations requires a high degree of technical expertise. But the expertise needed is not the same as the expertise needed for the clients' core business. While systems development staff are frequently able to learn enough about the business to transfer into business departments, operations personnel frequently do not have the same level of career opportunities. Systems operations vendors can however provide career growth opportunities for operational staff.

In most companies the information systems staff have a higher turnover than the staff in the rest of the company, which leads to a feeling that they are more loyal to their profession than they are to their employer. This is exacerbated by the fact that information systems staff tend to be more highly paid, and often require their own pay structure.

Many information systems staff seem to be more concerned with their own technical issues and expertise than they are with the market or business issues of their employers. A typical example is the tendency for them to acquire skills to suit their own curriculum vitae, rather than skills that would be most useful to the company for which they work.

As well as managing the staff transfer, it is possible that many will have to change their location of work. At the same time new skills provided from existing vendor staff will need to be added to the staff being taken over, all of which involves a significant management and co-ordination effort.

Consequently systems operations vendors need to develop human resources skills not only for the technical operations but for management of the activity and for sales and marketing.

Exhibit IV-10 lists the key staff capabilities required by systems operations vendors. They are ordered by the volumes of staff expected to be found in each category on a systems operations vendor's head count.

EXHIBIT IV-10

Systems Operations Skill Requirements

- System/network operations
- Technical support
- General management
- User support
- Network design/development
- Applications maintenance/development
- Project management
- Sales

Over the next several years, clients will look increasingly to vendors to provide application maintenance and development services. The effect of this transition will be different for different types of vendors.

Systems operations companies, whose expertise is primarily platform operations, will need to develop greater application skills or establish strong alliances to ensure availability of the skills. Alliances are a powerful method of gaining access to key human resource skill sets. Vendors are increasingly developing these relationships and this trend is anticipated to strengthen.

Professional services companies that have established relationships based in systems development or systems integration opportunities will need to demonstrate an ability to manage the operation of large, complex, geographically dispersed platforms.

Equipment manufacturers need to develop an ability to deliver application development and platform operations skills. Equipment manufacturers must also demonstrate a willingness to accept and manage multivendor platforms. The client's platform strategy may or may not be consistent with the vendor's platform strategy.

While most vendors recognise the need to broaden their base of skills and knowledge, INPUT believes that, within the next five years, vendors must be able to deliver a fully integrated set of information systems services. This must include applications maintenance and development, information technology (operations) management, and network development and management. Network skills stand out as being one of the most critical requirements for technical skills.

Improvement of selling capability is another significant challenge for many vendors. There can be a great deal of resistance to the concept of systems operations, both on the part of the end user who is concerned over the control issue and the loss of company assets, and on the part of the information systems department personnel who see systems operations as a major threat to their jobs. The nature of this resistance is therefore very often emotional rather than rational, and a significant level of sales skill is necessary in order to surmount many of these obstacles. In addition, since every situation tends to be very different, a traditional product or solutions sales approach is not effective. In particular, the systems operations sale must be made to general management and not just to information systems mangers, the typical target for software and services firms. This emphasises the need for the salesman to be both a businessman and a technical consultant.

Strategic Directions

Strategic Directions

This chapter addresses the future directions open and available to software and services vendors in the development of their systems operations contracting business. Section A addresses the current definitions of systems operations and the adjacent opportunities and service development possibilities. Section B examines the possibility of using vendor alliances to address systems operations opportunities.

A

Systems Operations Opportunities

It is important that systems operations services are viewed within the broad context of all software and services opportunities. The reason for this is the overriding need to meet changing client requirements over time. This was one of the points emphasised in section IV-A above in relation to the importance of creating a partnership between the vendor and the client in providing systems operations services. This section therefore examines the wider systems operations opportunity by:

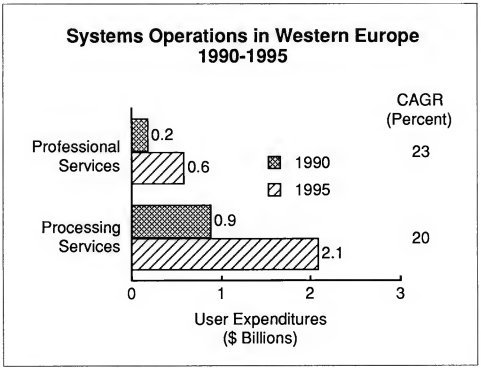
- Defining current systems operations delivery modes.
- Describing immediate systems operations options.
- Placing systems operations in the context of the wider software and services market opportunity.

Systems operations services are classified into two submodes—professional services or processing services:

- In the professional services submode the vendor provides the personnel to operate a system owned by the client. It is thus the provision of a people-based service on the clients' installation.
- In the processing services submodes the vendor owns the equipment and provides operating personnel and often facilities as well.

The processing services submode is currently the most common method of providing systems operations as is shown in Exhibit V-1 which shows the market size and forecast for Western Europe.

EXHIBIT V-1



In both of these submodes, systems operations can operate in equipment located either at the vendor's or the customer's site. These options are shown in Exhibit V-2, which identifies the dominant mode in each case. The further option is for the data centre to be either dedicated to one single customer or shared amongst a number of clients; these possibilities are shown in Exhibit V-3 which also highlights the dominant modes.

Another important distinction in systems operations contracts is between platform operations and application operations:

- In platform operations, the vendor provides the computer processing capacity and/or network without taking responsibility for the applications that the client develops and maintains.

- In applications operations, the vendor is responsible for the complete systems function, including equipment, telecommunications requirements, and applications software. This usually involves maintenance, development, and upgrade functions.

EXHIBIT V-2

Equipment Ownership Options

Location of Computer	Ownership of Equipment	
	Vendor	Customer
Vendor Site	Processing Services	Professional Services
Customer Site	Processing Services	Professional Services

Dominant Modes

EXHIBIT V-3

Equipment Dedication Options

Location of Computer	Ownership of Equipment	
	Shared	Single Customer
Vendor Site	Processing Services	Professional Services
Customer Site	Processing Services	Professional Services

Dominant Modes

This analysis can be further extended by breaking out the individual components of systems operations together with additional service elements that are obvious opportunities for vendors. Thus we have:

- Systems Operations Professional Services (Platform).
- Provision of Platform (MIPS).
- Application System Maintenance.
- Network Access Management.

- Disaster Recovery Services and Backup.
- Technical Consultancy.

Clearly each one of these services can be provided separately on a discrete basis, for example there appears to be developing a significant opportunity to provide third-party application systems maintenance, the maintenance of applications software written by the client. Consequently a number of variations can exist, each of which is designed to address unique client requirements. Exhibit V-4 identifies some of these variations using this classification to allow a better understanding of how this market functions and the vendor opportunities that it presents.

EXHIBIT V-4

Systems Operations Opportunities

Systems Operations Components	Options*			
	1	2	3	4
Professional Services	●	●	●	●
Platform		●	●	●
Application Maintenance			●	●
Network Management				●
DRS/Backup				●
Consultancy				●

*

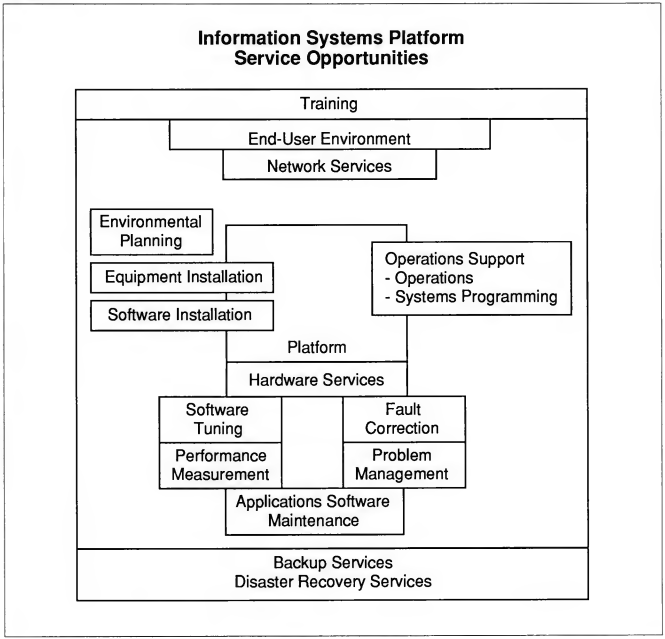
Option	Description
1	Professional Services Systems Operations
2	Processing Services Systems Operations
3	Applications Systems Operations
4	Extended Systems Operations

The options indicated in Exhibit V-4 underline the need for the vendor to be flexible in the face of changing user requirements, as already referred to. Rather than being a threat, this range of options offers the vendor a considerable opportunity. A partnership approach between the vendor

and the client has been identified by many vendors as the only way to keep track of, and meet, the changing meeds of the client. However, INPUT research has also uncovered user criticism of vendors wanting to maintain the status quo. Some clients specifically want a much fuller service than that indicated by options 1 and 2 in Exhibit V-4. For example, they may require the provision of strategic technical guidance on new developments and directions for their information systems plans.

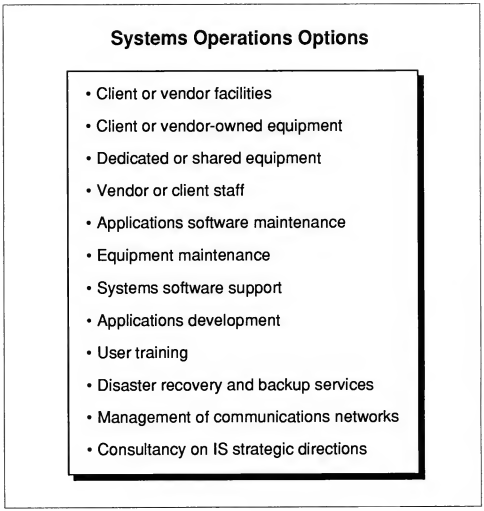
An analysis of all the individual service components needs of an information system opens up the possibility for vendors to enter this market via an incremental service strategy rather than via a full contract approach. The opportunity for an incremental service approach is indicated in Exhibit V-5. This exhibit identifies a number of essential services for the operation of a significant processing capability, most of which are currently provided in-house. This is an approach which is likely to be taken by equipment service companies, whether equipment vendors or independent maintenance companies. These companies are well placed to exploit this type of strategy, as they are already solidly in place with the provision of hardware field maintenance services.

EXHIBIT V-5



Another additional professional services opportunity not shown in Exhibit V-5 is that of applications software development. This is obviously a natural opportunity for professional services firms. This, and all the other systems operations options referenced above are listed in Exhibit V-6.

EXHIBIT V-6



B

Vendor Alliances

An important development in the systems operations market in Western Europe is that of partnerships between vendors. Vendor alliances are expected to become an important vendor strategy as the systems operations market expands further. These alliances can take a number of forms:

- Setting up a jointly owned company specifically to provide systems operations services, for example, Axone, a company formed in France by IBM and the Sema Group.
- One vendor acting as the prime contractor, subcontracting out vendor-specific skills as necessary, for example:
  - Data Networks PLC (part of the Sema Group) and Hitachi Data Systems.
  - IBM and CTG.

- Forming a joint company with a user, for example:

  - CEGEKA NV, originally founded by Computer Sciences Corporation, and the Belgian coal mining group Kempense Steenkolenmijnen. (CSC subsequently sold its interest to Volvo.) Note also Credit Agricole's 30% interest in the Axone group formed by IBM and the Sema Group.

These alliances are motivated by a number of principal factors:

- Marketing
- Finance
- Capabilities

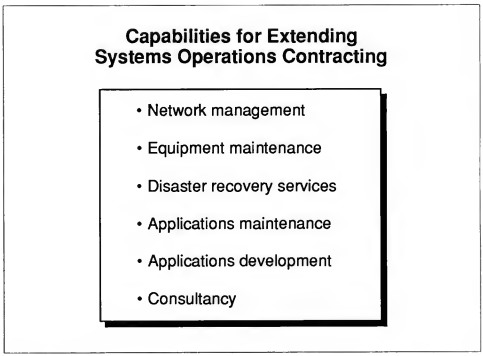
Alliances are often created to serve wider marketing goals, principally to enter new markets or to develop existing markets. The partner will bring to the alliance the local knowledge and key contacts required for proper exploration of that opportunity. Without that partnership, market entry would probably be impossible or require access to unrealistic levels of finance.

Finance is thus another very important aspect of the motivation to form an alliance, to assuage the costs of market entry and development. It can also be viewed as a means of controlling operating costs. The formation of an alliance with a firm that has a lower cost structure and that can deliver a necessary part of the overall systems operations contract will give the prime vendor a more competitive position in the market. This approach may be particularly effective where a vendor is called upon to provide multi-country services. Seeking partners in the various geographically dispersed locations, each with its own requirements for local knowledge, experience and cost structures, would serve to overcome many intractable problems.

Another key motivation for a vendor alliance is access to specific capabilities, for example industry knowledge or expertise, or equipment maintenance. It may simply be necessary to augment internal capabilities to meet specific needs or to gain access to expertise that is just not available in-house. Access to these key capabilities may serve to help the penetration of a new market or strengthen the vendor's competitive position.

Exhibit V-7 lists the principal areas of capabilities that systems operations vendors might seek to supplement or gain access to through the formation of an alliance.

EXHIBIT V-7



In order to provide access to wide-area networks and to offer comprehensive network management services, an alliance may be necessary for some vendors. Thus although Andersen Consulting has a network capability itself, it has also formed SigmaNet, an alliance with Motorola Codex to offer managed network services in the U.K. initially and possibly internationally at some point in the future.

Equipment maintenance services need to be subcontracted out by most systems operations vendors and therefore greater access to experience and knowledge of this area from an alliance may be an attractive option. As pointed out in the previous chapter, equipment maintenance is an entry point to systems operations.

Support of applications software and its development are areas where vendors are least likely to need alliances since most vendors have entered the systems operations business on the strength of their applications or business knowledge. However, as stressed elsewhere it is increasingly likely that systems operations vendors will have to demonstrate applications and industry knowledge in order to gain contracts. Some vendors may therefore need to consider alliances in order to gain access to particular markets.

This might also be true of consultancy services. Certainly in the professional services business the ability to provide consultancy services, both at the strategic and at the technical level, is emerging as a key requirement for the generation of other business. This has extended through into

management consultancy where vendors like Andersen Consulting are particularly strong. CAP Gemini Sogeti's interest in United Research and its recent acquisition of the MAC Group also provides evidence of this need.

It would be remiss to end this short section on alliances without drawing attention to the fact that many problems occur in their management and vendors need to give very careful consideration to this aspect. Many vendors will prefer to remain at arm's length with other vendors and maintain the relationship purely on a subcontracting basis.

The problems that can contribute to the failure of alliances are much studied by business schools and Exhibit V-8 lists key problems identified by a UCLA study of the subject in the United States.

EXHIBIT V-8

Problems of Vendor Alliances

- Problems
  - Impact of environment forces
  - Short-term differences in performance
  - Perceptions versus actual benefits
  - Unwillingness to share key assets
  - Differences in business culture
- Steps to minimise failures
  - Clearly determine common objectives
  - Communicate strategy to operating people
  - Avoid complexity
  - Insulate alliances from partners

Problems can occur quickly if adequate planning and execution of the agreement do not occur. Failure to identify roles and responsibilities clearly and to resolve how key assets will be shared are quoted frequently as problems, as are the differences in business culture between different firms.

Steps can be taken to prevent the type of distrust that prohibits the development of a successful alliance. Clearly written objectives in the hands of key managers and open communication appear to be the most necessary and effective tools.

It is obviously a massive sales and marketing task to identify the most likely prospect for a systems operations project, line up the proper alliances to flesh out the vendors' technical capabilities, and conduct the negotiations that lead to a successful sale. This underlines the inherent advantages of the large vendors in addressing this market and the increasing demands being placed on vendors in general in this sector.