# THE PROFITABILITY CHALLENGE SYSTEMS OPERATIONS

## W.EUROPE 1991

INPUT

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## INPUT OFFICES


**North America**

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

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

**Washington, D.C.**
**INPUT, INC.**
1953 Gallows Road, Suite 560
Vienna, VA 22182
Tel. (703) 847-6870 Fax (703) 847-6872

**International**

**London**
**INPUT LTD.**
Piccadilly House
33/37 Regent Street
London SW1Y 4NF, England
Tel. (071) 493-9335 Fax (071) 629-0179

**Paris**
**INPUT SARL**
24, avenue du Recteur Poincaré
75016 Paris, France
Tel. (1) 46 47 65 65 Fax (1) 46 47 69 50

**Frankfurt**
**INPUT LTD.**
Sudetenstrasse 9
W-6306 Langgöns-Niederkleen, Germany
Tel. 0 6447-7229 Fax 0 6447-7327

**Tokyo**
**INPUT KK**
Saida Building, 4-6
Kanda Sakuma-cho, Chiyoda-ku
Tokyo 101, Japan
Tel. (03) 3864-0531 Fax (03) 3864-4114


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# THE PROFITABILITY CHALLENGE SYSTEMS OPERATIONS

# WESTERN EUROPE 1991

INPUT®

Piccadilly House, 33/37 Regent Street, London SW1Y 4NF, UK +44 71 493 9335
24, avenue du Recteur Poincaré, 75016 Paris, France +33 1 46 47 65 65
Sudetenstrasse 9, D-6306 Langgöns-Niederkleen, Germany +49 6447 7229

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24, avenue du Recteur Poincaré, 75016 Paris, France +33 1 46 47 65 65
Sudetenstrasse 9, D-6306 Langgöns-Niederkleen, Germany +49 6447 7229

Researched and Published by
**INPUT**
Piccadilly House
33/37 Regent Street
London SW1Y 4NF
England

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The Profitability Challenge

Systems Operations

Western Europe, 1991

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## Abstract

Although the systems operations market continues to expand, profitability has become a major issue for systems operations vendors in Western Europe. This report sets out to identify the factors affecting vendors' profitability in the systems operations market including the impact of the recession in a number of countries, and the influence of contract renewals. Vendors' strategies to improve their profitability are also analysed.

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.

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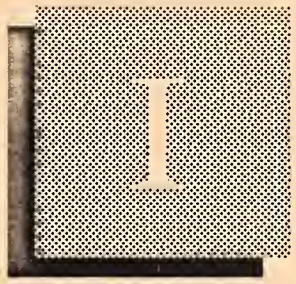


# Introduction

# I 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 impact of the recession in Western Europe on the systems operations market, the factors affecting the profitability of the systems operations market and vendor's strategies to improve their profitability.

Renewals of systems operations contracts can also have a significant impact on contract profitability and so the characteristics of contract renewals are also discussed in this report.

## B Scope and Methodology

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, 1991-1996

- Systems Operations User Issues Western Europe, 1991-1996

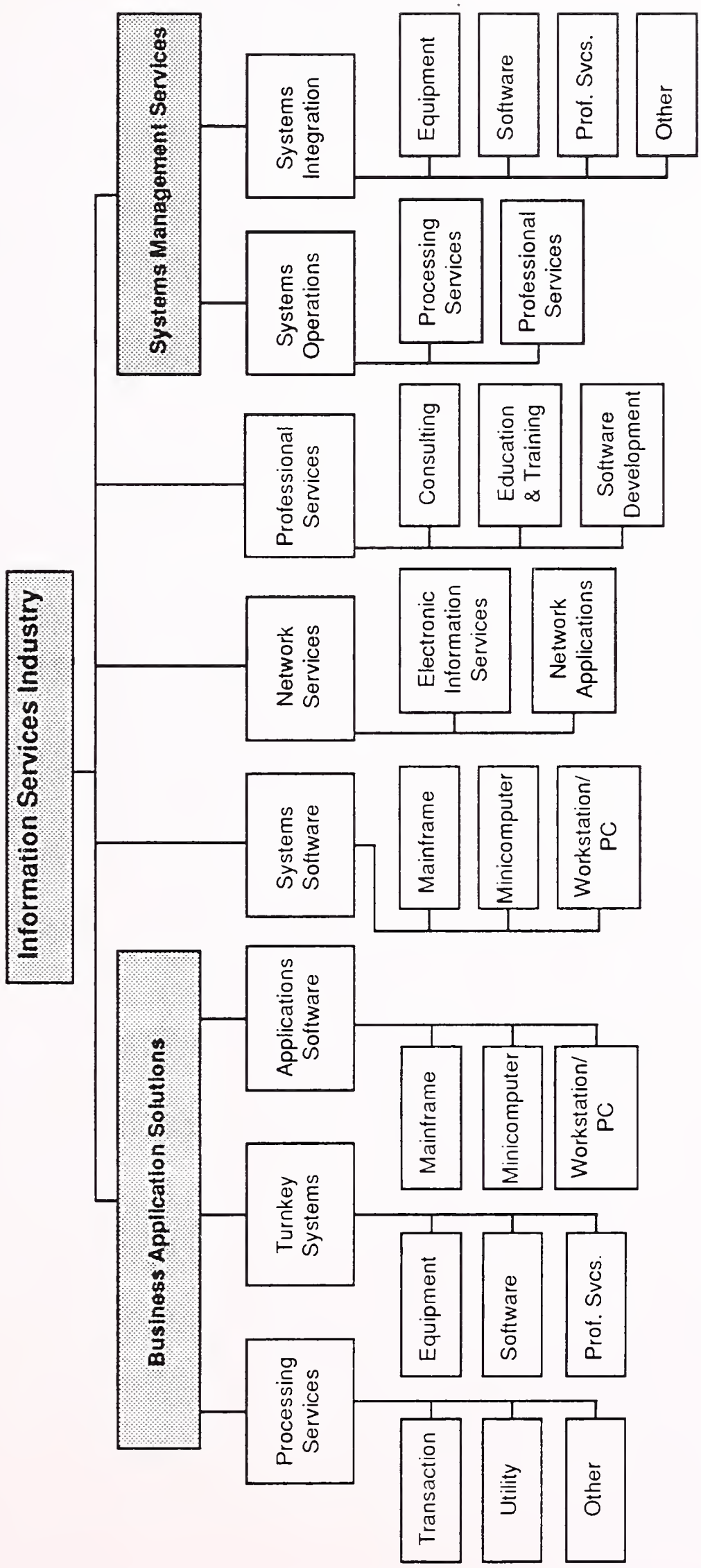
The research that contributed to this study was derived from two principal sources:

- 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.

## Exhibit I-1



## C
## Report structure

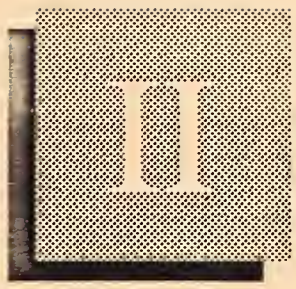
The remaining chapters of this report are structured in the following way:

- Chapter II is an executive overview providing a concise summary of the salient points of the report.

- Chapter III considers the impact of the recession on the systems operations market and the manner in which the recession can be considered to act as a driving force on the market.

- Chapter IV evaluates the factors affecting profitability in the systems operations market and vendors' strategies to increase their profitability. This is an area of real concern for many vendors at the present time.

- Chapter V discusses the nature of renewals of Systems Operations contracts and users' typical attitudes and actions at the time of renewal.



# Executive Overview

# II Executive Overview

## A
## Vendors Look to Existing Clients to Maintain their Profitability

Although the systems operations market continues to expand strongly, vendors are experiencing strong price competition for their services. This price competition is particularly intense in the platform operations segment.

Vendors accordingly require a strategy to manage their profitability. There are three approaches that vendors can adopt:

- Concentrate on higher value-added services such as application operations and business operations, rather than platform operations
- Seek to improve the profitability of their existing client base
- Aggressively target reductions in their platform operations cost base.

So far the leading systems operations vendors have been typically taking the first two of these approaches, in response to the pressures on their profitability.

The majority of leading vendors are endeavouring to move away from platform operations and place more emphasis on application operations where higher margins can be maintained. While new users of systems operations typically remain resistant to this approach, vendors are finding that their existing clients are increasingly amenable to making the transition from platform operations to application operations, as they renew their systems operations contracts.

By adopting this strategy, vendors are leaving themselves vulnerable to price competition in the platform operations segment. This is potentially a dangerous strategy which could lead to reduced market share since many users entering the systems operations market for the first time will do so via platform operations.

Often users will only adopt higher value-added services such as application operations at a later stage in the development of their use of systems operations.

Exhibit II-1 summarises the major current trends in the systems operations market in Western Europe.

**Exhibit II-1**

**Major Trends**
**Systems Operations, Western Europe**

- Increasing price competition for vendors
- Vendors develop existing clients to enhance profitability
- AS/400s increasingly the subject of systems operations

The increased price competition is being stimulated by an increase in the potential number of systems operations suppliers and by the effects of the recession in some of the leading Western European economies such as France and the United Kingdom.

The systems operations market is increasingly attractive to equipment manufacturers, such as IBM and ICL, and spin-offs from in-house IS departments such as ITNet and Barclays in the UK. Systems operations vendors are concerned that the spin-offs will offer marginal pricing to attract new business. They are also concerned that the equipment manufacturers will support their systems operations activities via better margins on their equipment than are generally available on the open market.

While the recession is acting as a spur to systems operations activities in countries such as the United Kingdom and France, since companies in the midst of a recession are very aware of the need to control, and where possible reduce, their costs, it also leads to increased pressure on prices. This is because the effect of the recession differs between the platform operations and application operations segments. Since the motivation for platform operations is essentially cost control, this segment is receiving the major boost from the recession. The recession also emphasises the role of price in vendor selection. The effect on the application operations segments is less positive since the recession discourages, and leads to the postponement of, development projects which are a prerequisite for application operations. The recession also tends to lengthen the buying cycle for all systems operations contracts since it leads to an overall reduction in business activity and discourages companies from spending with outside suppliers.

However, another positive consequence of the recession is that it lessens the resistance to systems operations from in-house IS staff. When development projects are being frozen, budgets cut-back, and redundancies a reality then the prospect of a career with a systems operations vendor becomes a much more attractive proposition.

Another major trend in the systems operations market is the markets' development from the management of mainframes to include mid-range equipment such as the IBM AS/400. Unlike mainframes which are typically moved to the vendors data centre, production mid-range machines typically remain on the user's premises. This presents a challenge to systems operations vendors to reduce the cost of running these systems. Vendors typically move any development and maintenance activity into their own data centres and attempt to achieve further economies of scale by either remote management of the production equipment or using computer-aware end users as operators. The market for systems operations on mid-range equipment is being stimulated by the high level of transition management contracts. A typical transition management contract involves the vendor in managing existing services usually from a mainframe while new distributed systems are developed. While the initial intention is frequently that the user will manage the new system, in practice, vendors are finding that they are often asked to manage the new computer services.

## B
## Renewals can Boost Profitability

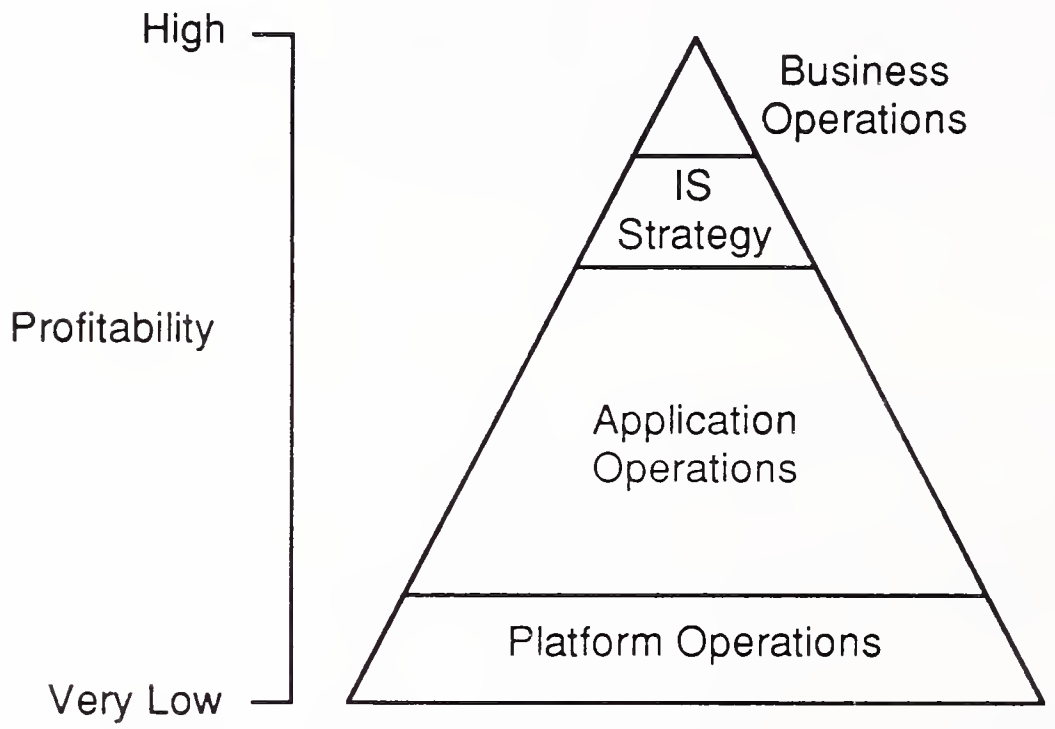
Many systems operations vendors in Western Europe are concerned with contract profitability at the present time, and are finding that they rarely achieve the target contribution levels they have set themselves on individual deals.

Price competition for platform operations contracts is particularly severe. Exhibit II-2 shows the traditional view of profitability by type of activity, with platform operations regarded as marginally profitable, application operations regarded as offering high levels of profitability, and business operations contracts - such as that undertaken by Andersen Consulting with BP Exploration - potentially the most lucrative of all.

Accordingly the majority of vendors are seeking to reduce their dependence on platform operations contracts in favour of application operations.

**Exhibit II-2**

## Profitability
## Systems Operations, Western Europe



Vendors are being assisted in this transformation by their existing clients some of whose contracts are now at the renewal stage. Renewals have been found to have three key characteristics, namely:

- Existing service levels are crucial to the re-negotiation of the contract. A dissatisfied client will almost certainly switch vendors.

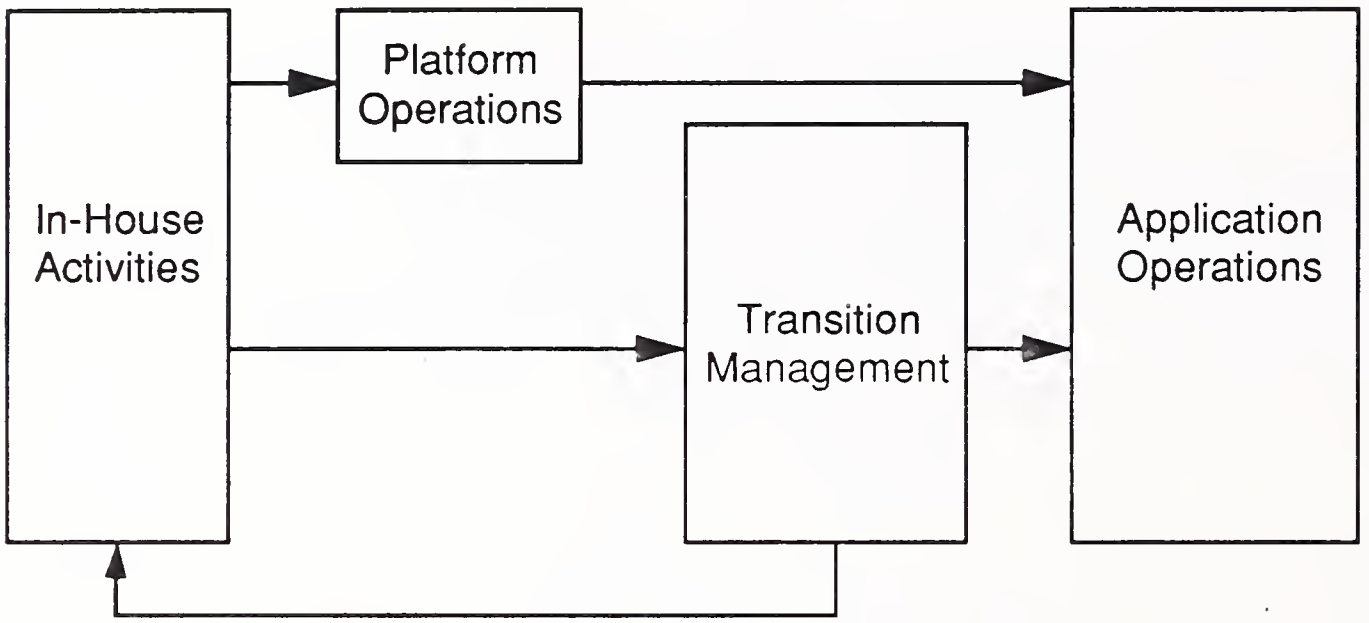
- Users will attempt to drive down the cost of any re-negotiated contract, and will re-evaluate the market in a bid to do so.

- Users are more susceptible to application operations the second time around.

Hence while users will typically use competitive tendering at the renewal stage and will bargain determinedly, they have also lost some of their initial fear of system operations and will often be prepared to commit more of their activities to the management of systems operations vendors. This frequently means taking the step from platform operations to application operations as illustrated in Exhibit II-3 which shows the evolution path of a typical systems operations user.

**Exhibit II-3**

## Typical User Evolution
## Systems Operations, Western Europe



## C
## Vendors Need Both Platform Operations and Application Operations Capability

This potentially leaves systems operations vendors in the quandary illustrated in Exhibit II-4. New users typically buy platform operations - in the guise of either computer operations contracts or transition management contracts - where the primary motivation is cost control. However, once these users have greater experience of using systems operations their requirements often evolve to application operations where the vendor selection criteria are business/industry knowledge and development capability.

Ideally vendors need to satisfy both market segments. It is important to be competitive in platform operations if a vendor is to attract new business, but the vendor also needs applications operations skills to meet the evolving requirements of the user base.

**Exhibit II-4**

**The Paradox**
**Systems Operations, Western Europe**

- New users buy:
  - Platform operations
  - Cost control
- Existing users buy:
  - Industry knowledge/consultancy
  - Development capability

However as indicated in Exhibit II-5, few vendors appear to offer this combination of skills. In particular, few vendors are endeavouring to drive down the cost curve to make their platform operations offerings truly cost-effective. However one example of a company doing just this is Axone - the joint venture between IBM and Sema Group in France. Axone believes that a critical mass of $200 million is required to achieve significant economies of scale, and is actively seeking to reduce its ratio of personnel to computer power from one person per two mips down to one person for every ten mips. Many other vendors seem more concerned with generating a good geographic coverage of data centres rather than concentrating on being price-competitive in platform operations.

Most vendors are seeking to improve their profitability by placing more emphasis on application operations. The extreme form of value-added service, offered by Andersen Consulting, is business operations where the vendor not only undertakes all application development but also manages and operates the business function served by the information systems.

**Exhibit II-5**

**Vendor Strategies**
**Systems Operations, Western Europe**

- Few vendors targeting cost-efficient platform operations
- Most vendors preserving profitability by moving to higher value-added services

# Recessionary Impacts—Systems Operations

# III Recessionary Impacts - Systems Operations

## A
## Recession Boosts Platform Operations

Whilst the recession now impacting a number of countries in Western Europe is likely to have a negative impact on most sectors of the software and services industry and is frequently reported as a major factor behind the cancellation of major projects, its effect on the systems operations market is not so clear-cut.

For example, is the net effect of the recession an embargo on all forms of external expenditure including systems operations deals, or does systems operations' promise of reduced costs become even more attractive to user management in periods of recession? This chapter sets out to:

- investigate the direct impact of the recession on systems operations opportunities
- consider the implications for information services and systems operations vendors.

The answer the first of these questions, INPUT conducted research amongst the vendor community to ascertain their view of the impact of the recession on their systems operations businesses.

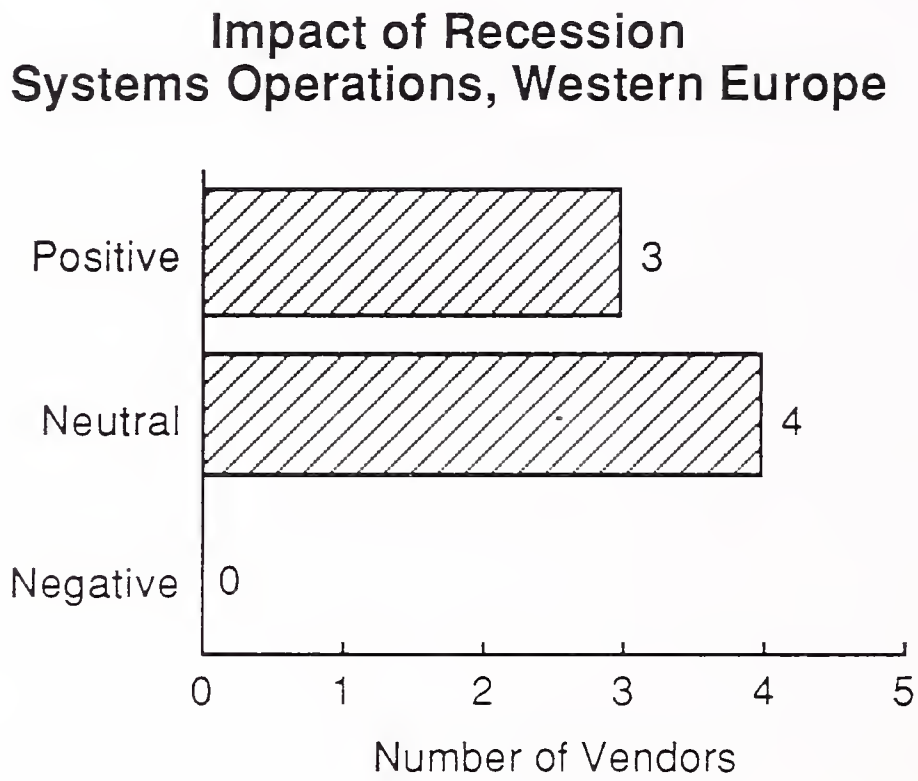
As shown in Exhibit III-1, approximately half of the vendors questioned regarded the recession as having a beneficial impact on the systems operations market. The remainder of the sample of vendors chosen believed the recession to be neutral in impact on the systems operations market. Unlike the overall software and services market where the recession, or threat of recession, has had a marked influence on market growth which is often commented upon by vendors, no vendors believed that the recession was having an overall negative impact on the systems operations market.

However the recession's impact is felt differently in the platform operations and application operations segments of the market. One of the principal motivations for users adopting platform operations is the desire to remove cost uncertainty by fixing the cost of computer or network operations over a period of years, and it is typically expected that vendors will guarantee to manage a user's platform operations services more cost-effectively than could be achieved in-house. Accordingly such deals can become even more attractive in times of recession when the pressure on companies to cut their costs is at its greatest.

The impact of recession is less beneficial on the applications operations segment. In this instance, user management's desire to cut IS spending is tempered by the need to realign the information systems with the overall needs of this business. This involves a major application development component to the systems operations deal which makes its approval susceptible to postponement in Recessionary periods.

**Exhibit III-1**



It is possible to identify separately the positive driving forces towards systems operations which are accentuated by the recession and the inhibitors to systems operations which are stimulated by Recessionary influences.

The positive driving forces which are accentuated by the recession include:

- Greater cost-consciousness exhibited by users
- Systems operations become more attractive to in-house IS personnel.

Firstly companies become more conscious in times of recession and in-house IS departments which have in the past often been immune from contributing to the corporate cost reduction exercise, are now coming under pressure from financial directors to contribute their share of corporate savings. Two ways of achieving cost savings which are regularly considered are downsizing and systems operations. Indeed the two approaches can even be combined. However one advantage that systems operations has over downsizing is that it can assist companies in fixing major elements of their IS costs for a period of years. Platform operations contracts are often for periods of five years or more, and vendors are prepared to offer improved terms to clients for even longer term contracts.

Hence the recession would be expected to give a significant boost to the number of prospects looking for fixed price, platform operations deals. This is indeed found to be the case though there is a suspicion amongst some vendors that a portion of this activity is purely defensive posturing by in-house IS managers keen to defend their own empires.

However, contrary to this, a number of vendors have found that the recession makes systems operations a more attractive proposition to in-house IS personnel, who are typically opposed to such deals when business is booming. In times of recession, companies are typically cutting back on development projects and possibly in the present climate looking for cost savings in their IS departments - maybe via redundancies. In this climate, a relatively secure and progressive career path within a systems operations vendor can begin to appear an attractive prospect compared to the status quo.

However these positive driving forces are counterbalanced by a number of factors which act to inhibit the development of the systems operations market. These include:

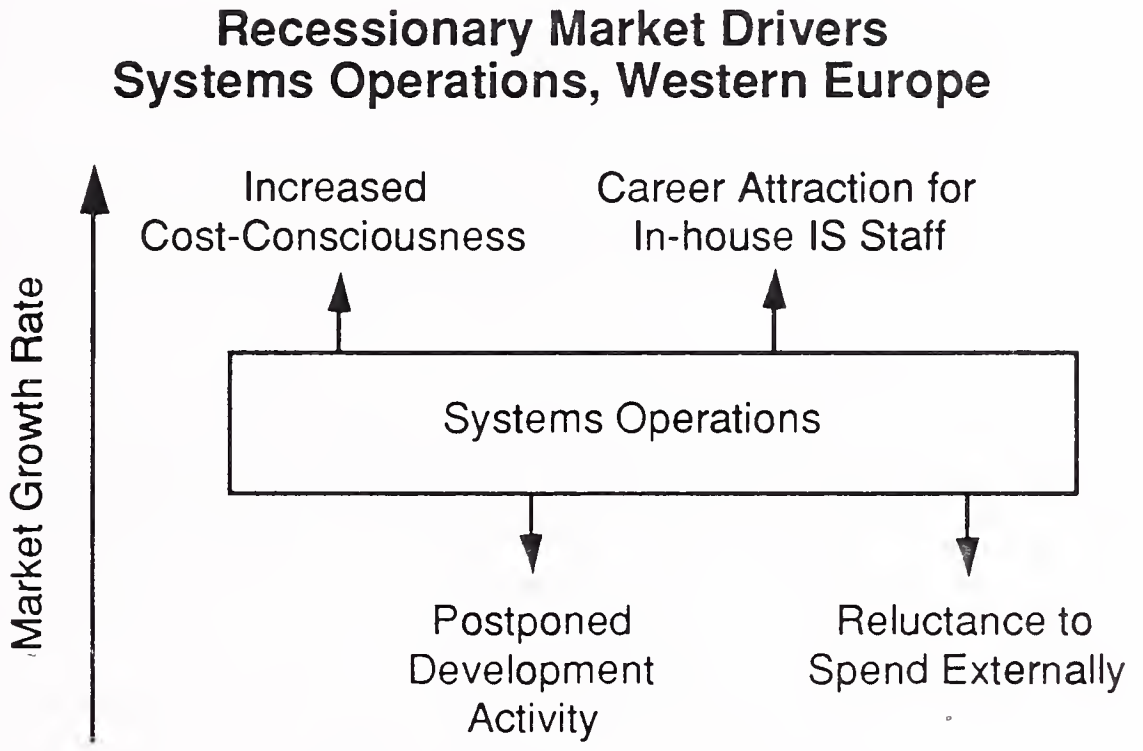
- stagnation
- fear of external spending commitments
- increases in the length of the buying cycle.

The first of these is the general level of stagnation caused by a recession as companies adopt a "wait and see" stance to their operations. This stagnation, as already mentioned, tends to lead to the postponement of major projects. It can also lead to delays in the speed with which companies downsize or move to open systems - both of which are major sources of systems operations contracts. These migrations are important to systems operations vendors since companies frequently either ask systems operations vendors to manage their existing systems while they manage the implementation of the new systems or ask systems operations vendors to assist actively in the migration.

Secondly, recession tends to discourage external spending per se, and thirdly because of the lack of business activity and hence deadlines, the length of the buying cycle increases. The length of the buying cycle may also be affected by the large number of in-house IS departments evaluating systems operations in a defensive manner, with no real buying intention. There appears to be a significant amount of such activity at the moment possibly prompted by the concerns of companies' senior financial personnel.

The impact of the main driving forces which are heightened by the recession is shown diagrammatically in Exhibit III-2.

Exhibit III-2



## B
## Implications for Information Services Vendors

Faced with recession in most markets across Western Europe, INPUT recommends that vendors ask themselves a parallel set of questions, as outlined in Exhibit III-3 and detailed in the rest of this section.

### 1. Recession Planning and Spending Cuts

While users look at plans for a recession and cuts in spending from the inside, information services vendors should ask a parallel set of questions vis-a-vis each user organisation:

- How will my buyer be affected by recession?

- How are they approaching recession planning? Are they planning early and rationally, or will they need to be hit on the head by the impacts and then overreact in ways that hurt my business with them needlessly?

**Exhibit III-3**

**Information Services Vendors**
**Recommended Recession-Related**
**Question Topics**

- Recession planning and current spending restrictions
- Determining and proposing trade-offs
- Implications of hardware cuts and downsizing
- Inside application development versus outside system development
- Defending against consulting cuts
- Holding steady on processing services
- The challenges for systems integrators
- Opportunities for systems operations
- Sector-specific questions

- If they have no official recession plan in place, what is the state of my buyer's business in terms of any organisation-wide spending restrictions, either those in place now, planned, or rumoured?

## 2. Trade-offs

Whatever the buyer's planning situation, there may be opportunities for a vendor to help them plan. Ask:

- How could we help the buyer establish plans for coping with a recession so as to include trade-offs that both benefit the buyer and avoid cuts in their business with us, one of their information services vendors?

- Besides avoiding cuts in their spending with us, can we help the buyer see opportunities to cope more effectively with a recession that also increase our business with them, perhaps at the expense of alternative spending and thus result in a net saving?

- What more do we need to understand about the buyer's long-term information systems budget and strategy - and any Recessionary impacts - to better position ourselves to propose and win such trade-offs?

## 3. Hardware

Hardware cuts and downsizing can have direct or indirect impacts on information services vendors. Ask:

- If hardware spending is cut, what are the automatic implications for us as an information services vendor to that buyer?

- What opportunities for us can we see in hardware cuts that the buyer might not see without our prompting?

- What is the buyer's position in the strong new trend toward downsizing, and how can we use that to our advantage?

- Systems operations vendors may wish to emphasize the cost-cutting role of downsizing, and offer to manage the buyer's existing systems while the downsizing is being implemented.

### 4. Systems Development

This is a classic two-edged sword in a recession. Ask:

- Are there new opportunities for us in systems development if the buyer needs to reduce internal application development spending due to a recession?

- How do we defend against the tendency of many buyers to cut outside system development spending before firing internal application developers?

- While the recession may lead to a reduction in development activity, it is a good time for systems operations vendors to get into position for the up-turn in development spending. Buyers often only transfer development activity to systems operations vendors once they have acquired familiarity with the vendor through transfer of a low risk activity such as platform operations.

### 5. Consulting

Many users will cut consulting in a recession, some entirely. Ask:

- How can we protect against the buyer's knee-jerk, cut-it-all attitude toward consulting spending that they consider non-essential?

- What services can we offer for a net saving to the buyer?

### 6. Processing Services

Processing services firms look to be in a good position. Ask:

- How should we guard against being fat and happy in our stable relationship with each long-term buyer to avoid an unexpected recession-based cancellation of service?

- For prospects just thinking of starting up with us, how can we use recession preparedness (or coping) to move them to act more quickly?

## 7. Systems Integration

Systems integrators may face some challenges during a recession. Ask:

- Does my buyer perceive our value being delivered in mid- to long- range savings, efficiency, or service improvements, and thus are we vulnerable to a short, recession-induced pause in the project until their money is flowing again?

- Can we defend continuation of the project without interruption based on finishing the job now so that the buyer is well-positioned to hit the ground running competitively, fully equipped with the newly integrated systems?

## 8. Systems Operations

Systems operations vendors appear ideally positioned to benefit from a recession. Ask:

- Since our buyers (and our prospects who are considering buying) regard us as a cost-saving option, how can we maximise the opportunity during tight times?

- To encourage action now, how can we minimise any front-ends costs that the buyer might incur to switch to our services?

- Which of the following types of systems operations does the buyer perceive to offer the best opportunities for cost stabilisation/cutting:

  - platform operations

  - transition management (in support of downsizing)

  - application operations

  - business operations.

- While platform operations and transition management appear to offer the most clear-cut cost saving opportunities, the buyer may also consider that business operations is the best way to cut costs in the long-term.

## 9. Sector-Specific Questions

Most vendors sell in multiple market sectors. For information services vendors as a whole the questions to ask include:

- What is the percentage of our business in each sector.
- How can we shift resources short-term to maximise our presence in those sectors that will likely experience minimum Recessionary impact?
- Whatever the level of projected impact, where are the "cherries" in each market sector - those organisations less impacted than the average? How can we sell more directly to them?
- In contrast, which buyers or potential buyers in a low-impact market sector are special cases and are likely to feel more severe Recessionary impacts that will limit their spending on our services?

However systems operations vendors may decide they wish to identify those market sectors where the recession has had least impact and those where the recession has had most impact and target them accordingly. Indeed those sectors such as the retail sector and the discrete manufacturing sector which have suffered most from the recession in Western Europe may offer the best potential for systems operations cost-savings offerings. On the other hand sectors such as utilities which have suffered less from the recession together with the food and drink and pharmaceuticals sectors may be more susceptible to offerings with a high application development content.

# IV

# Profitability Issues—Systems Operations

# IV Profitability Issues - Systems Operations

The profitability of systems operations contracts is currently a major source of concern for vendors operating in the Western European systems operations market. This is of particular concern since the systems operations delivery mode is the delivery mode least affected by the recession.

This chapter sets out to analyse profitability in the Western European Systems Operations market by considering:

- the present market conditions in the systems operations market and vendors' responses to these
- vendor pricing of systems operations
- the overall profitability of a number of leading systems operations vendors
- the role of platform operations efficiency in determining vendors' competitiveness and profitability.

## A
## Profitability Threatened by Price War

Most systems operations vendors operating in Western Europe are concerned about the degree of competition for systems operations deals. Some of the pressure on vendors' profitability are shown in Exhibit IV-1. Indeed the systems operations market is currently characterised by:

- keen price competition
- a tendency to over-supply.

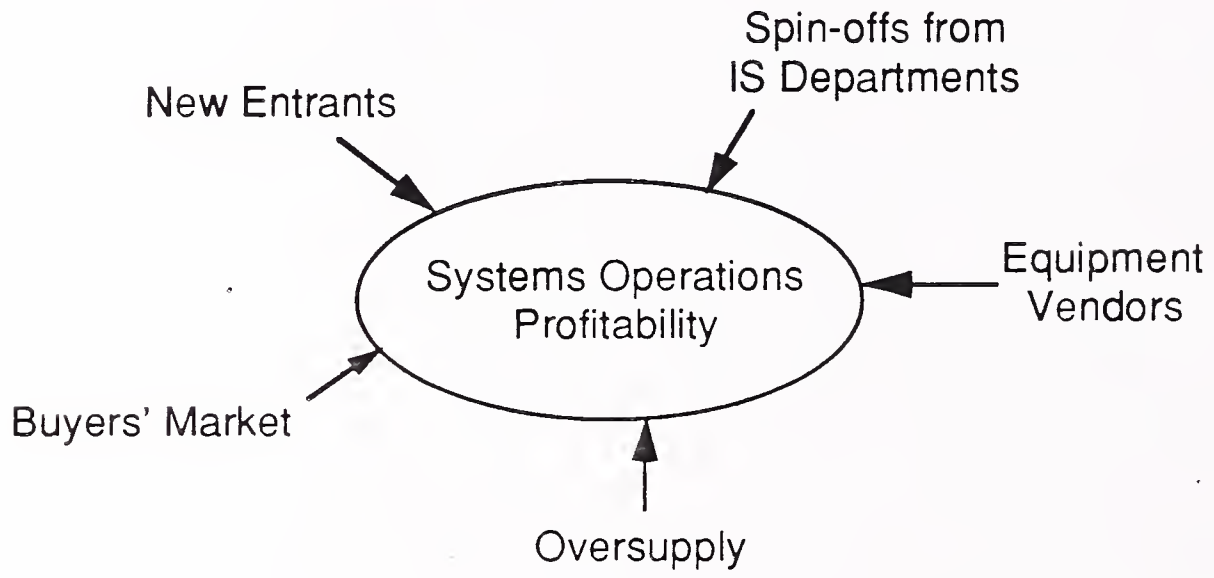
This was reflected in the following comments made by vendors:

> *"There is a lot of competition. Some competitors are not doing too good a job of pricing"*
>
> *"Some small players are buying their way into the market. There is a danger of systems operations getting a bad name"*
>
> *"Marginal pricing is taking place"*
>
> *"Some of the spin-offs and equipment manufacturers are sailing close to the wind"*
>
> *"It is a buyers' market at present"*

Exhibit IV-1

## Pressures on Profitability
## Systems Operations, Western Europe



Overall while most of the leading systems operations vendors stated that they would rarely take on an unprofitable deal, they felt that a number of their competitors were targeting revenue rather than profitability. These accusations were typically made against the systems operations vendors with close links to major equipment vendors or those vendors which are recent off-shoots from a major user's in-house IS operations. However there is no evidence to suggest that vendors are taking an unrealistic stance to their contract pricing.

On the other hand, it can be argued that the major equipment vendors could "transfer price" major equipment items to their own subsidiaries at lower prices than would be available to other systems operations vendors. The systems operations market is very attractive to equipment vendors since it offers in the short-term a guaranteed commitment to their products and in the long-term a much greater degree of account control.

In the case of recent off-shoots from in-house IS departments, it is probable that they typically have spare capacity on existing equipment which is providing them with the means to enter the systems operations market. The prior existence of spare capacity can be a competitive advantage in pricing systems operations deals.

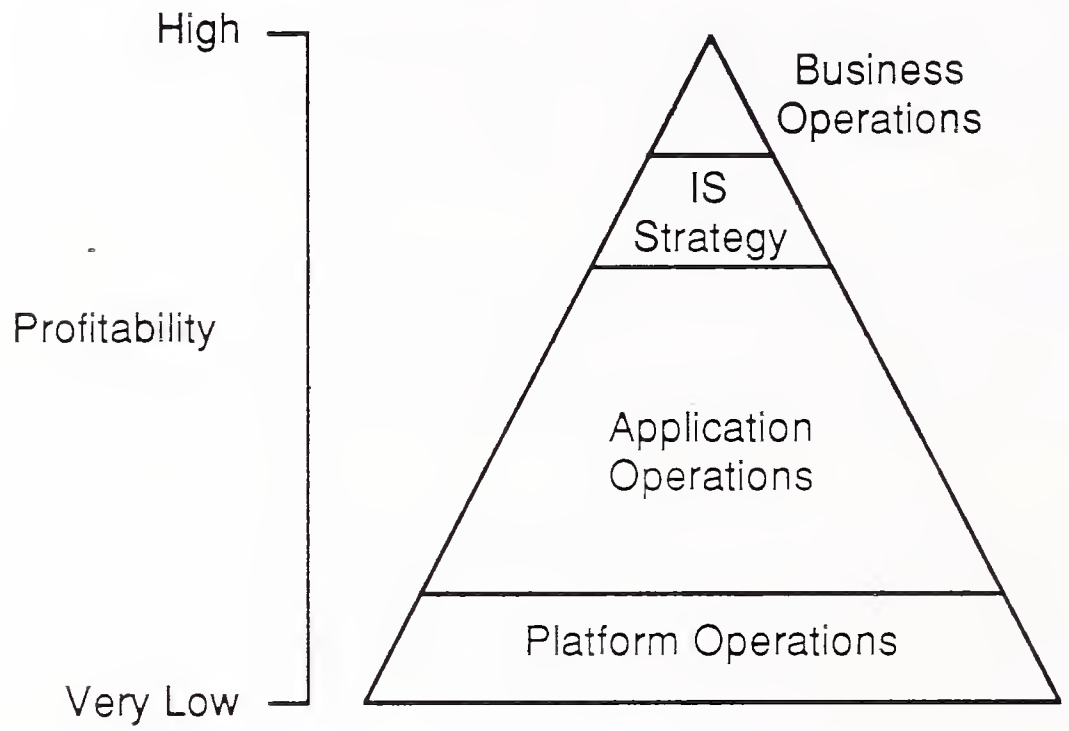
The aggressive stance of these new entrants to the systems operations market is having an impact on the profitability which can be achieved by traditional systems operations vendors. One vendor stated that while they set target contribution levels for each deal, they were in practice rarely achieving these at the present time. Another vendor stated that they now expected 5/6 suppliers to be invited to tender for each contract, a significant increase over the last eighteen months.

As a result, most vendors felt that the market could not support the large number of suppliers currently operating in the market.

The response of the majority of traditional systems operations vendors to this market scenario is to attempt to move to higher value-added services. The profitability of systems operations is heavily dependent on the activities performed as part of the contract as is illustrated in Exhibit IV-2.

Exhibit IV-2

## Profitability
## Systems Operations, Western Europe



Platform operations is by far the most competitive area and can exhibit very low levels of profitability. One vendor commented that ten percent margin on revenue before tax was a good performance in this segment of the market. Also the level of profitability that can be achieved is very dependent on economies of scale and the pattern of resources required by a client, and the consolidation of data centres is critical to the creation of profitability. Little profitability can be achieved by retaining a dedicated data centre to serve an individual client. One vendor suggested that platform operations deals are best regarded as "holes" and "fillers". Accordingly depending on the spare capacity available within a vendor's data centre, the terms on which vendors can price the same deal could vary significantly from vendor to vendor depending on the "holes" in capacity currently in existence.

Hence pricing of contracts has to be considered by vendors at two levels: firstly the cost of "production" and secondly the price that will enable the business to be secured. Leading vendors nearly always aim to make a profit over the life of each individual deal. However, it is also clear that most vendors are prepared to price at a loss where they feel they have a strategic need either to enter a new industry sector or to acquire a data centre covering a specific geographic region.

Surprisingly perhaps only one of the vendors interviewed has a strategy in place to improve its profitability and make the supplier more price competitive in the area of platform operations. This vendor felt that there were significant economies of scale to be achieved once a critical size of $200 million from platform operations was achieved. The vendor is also actively seeking to reduce its ratio of personnel to computer power from one person per two mips to one person from every ten mips.

However, this is not the typical strategy in place. Most vendors faced with significant competition and low profitability in the platform operations segment of the market are attempting to move to higher value added services. As shown in Exhibit IV-2 the profitability of the activity can be expected to increase as the vendor moves from platform operations through application development to IS strategy and business operations. This is clearly the strategy of companies such as Andersen Consulting who faced with increasing commoditisation of platform operations are seeking to take over discrete elements of a company's business operations such as their accounting function. Andersen Consulting believes that in return for certainty and improved business processes this can be achieved at a premium over client cost.

## B
## Vendor Pricing

A consistent theme noted in conversations with all vendors is that there is no standard formula for systems operations contracts. Each contract must be structured to meet a client's specific needs and requirements.

There is a clear indication that fixed pricing is a preferred pricing method. However, it must be noted that this type of contract must generally include an option to renegotiate pricing if the work mix or volume changes.

The principal pricing approaches can be defined as:

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

- Resource utilisation-based charging is most common in processing service-type contracts. In these contracts, the exact volume of work is frequently unknown. In addition, determining a fixed price per customer is difficult when work for multiple customers is run on the same system.

- Many resource-utilisation based contracts are a holdover from the service bureau days when customers were offered reduced transaction prices if they would commit to staying with the service bureau for an extended period of time. The concept of reduced, per-unit pricing for longer-term commitments has not changed.

- Fixed-price policies are most common when a vendor accepts responsibility for all of a client's work. Since the client's processing environment can be thoroughly analysed before contracting, workloads can be determined in advance. Whether the work is actually performed on dedicated equipment or in a shared work environment becomes less important.

Different pricing approaches for systems operations is one strategy for potential competitive differentiation.

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 containing appeal of systems operations contracting.

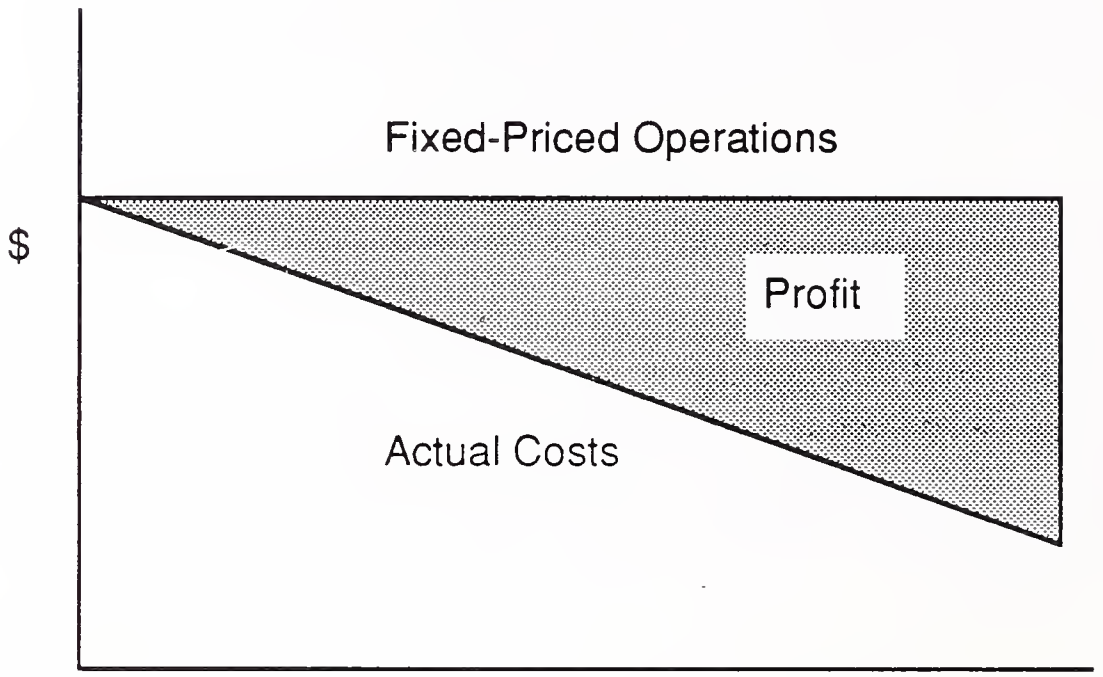
However another approach used by some vendors is to link the price charged to the level of output, for example the number of vehicles produced in the case of a car manufacturer, from the client's own business. This approach has the advantage that it can enable the vendor to establish an attractively low starting price in times of recession while offering the vendor an automatic price rise linked to the client's ability to pay.

Most often, the vendors who prefer fixed-cost contracts prefer them for many of the same reasons that vendor-owned equipment, operation on vendor premises, and shared equipment are preferred. A combination of these factors at a fixed price provides the vendor with flexibility to manage cost, and the personnel resources and technology to maximise profit. Exhibit IV-3 graphically illustrates this concept.

In this example, the vendor offers a fixed price to the client based on flat or modestly escalating cost assumptions that appear to provide modest profit margins. These margins can be increased handsomely, however, if the vendor manages the cost leverage it has at its disposal. The vendor can apply technology to improve personnel productivity, insert technology to make processing more efficient, and apply a number of other cost-management techniques. The contract that appears to have low margin today may become a real "cash cow" if managed effectively. Forward pricing concepts need to be clearly understood and applied in the systems operations environment. The vendor's pricing flexibility and ability to assume risk are very much a result of the number of variables that it controls.

Exhibit IV-3

## Efficiency Yields Profits
## Systems Operations, Western Europe



Two other offerings provide vendors with additional technical leverage. Some vendors such as EDS have value-added networks that provide them with the flexibility to move the workload from one processing centre to another. In the U.S., IBM has implemented a remote "lights out" operating capability which allows it to operate processing centres, that have virtually no operators, from remote control centres. Applications of technology like these provide vendors with additional opportunities to reduce cost and improve the competitiveness of their offerings.

However there are also dangers in the pricing approach shown in Exhibit IV-2. If this approach is too rigorously applied and the client notices that after several years the vendor is making "excessive" profits from the deal, then the client will become dissatisfied and the relationship between client and vendor will begin to break down posing a significant threat to the renewal of the contract. To avoid this occurrence, some vendors review contract pricing with their clients throughout the life of the contract. Any excessive, or unexpected, savings on the deal are then shared with the client promptly in such a way as to preserve both client satisfaction and the vendor's profit margin. This pricing approach is easiest to apply where significant losses in the start-up phase of the contract are avoided. If heavy losses are made in the initial stages of a contract then a high level of profitability will be required in the later stages of the contract to restore the overall deal to profitability. Accordingly if it is difficult to spread the initial transitional workload over a period of time, some vendors, while endeavouring to maintain a fixed price contract, will make a one-off transitional charge at the start of the project.

The vendor's pricing approach to a systems operations contract is also significantly influenced by the length of the contract with vendors prepared to offer lower initial prices for longer contract lengths.

However, the length of a contract is highly dependent on the reason that a user enters into a systems operations agreement.

- Shorter-term contracts are generally entered into by companies with specific needs such as those with financial difficulties or those faced with restructuring issues. Whether they continue to contract is determined by the resolution to the short-term problem. Transition management contracts undertaken by users downsizing are typically short, say two years, in duration.

- Shorter-term contracts are also a derivative of the service bureau environment. Companies using processing-based have historically been those that were growing and were either looking for specific applications or short-term capabilities until they could develop in-house capabilities.

- INPUT believes that the trend in the industry is toward longer-term contracts. Companies are interested in methods by which they can achieve a degree of predictability in their information systems costs. Long-term, fixed-price contracts fill this need.

## C
## Profitability Enhanced by Value-Added Services

Exhibit IV-4 summarises the net profitability achieved by a number of leading systems operations vendors in 1990.

The net profitability achieved within this group of vendors in 1990 varies widely from the 8.1% return on sales achieved by EDS to the 1.5% return on sales achieved by Axone. While it would be unreasonable to attribute the levels of profitability achieved by any of these vendors solely to their systems operations activities, some general conclusions can be drawn. Of course the proportion of their revenues attributable to systems operations also varies dramatically across these vendors from the 50% contribution for Axone to the 8% for Sema Group.

EDS showed the highest level of profitability amongst this group of vendors in 1990, and the company has consistently exhibited high overall levels of profitability over the past five years as evident from Exhibit IV-5.

**Exhibit IV-4**

**Vendor Profitability, 1990**
**Systems Operations, Western Europe**

| Vendor | Proportion of Revenues from Systems Operations (%) | Net Profitability (%) |
|---|---|---|
| EDS | 40 | 8.1 |
| Hoskyns | 48 | 4.5 |
| Sema Group | 8 | 2.8 |
| Finsiel | 9 | 2.5 |
| Axone | 50 | 1.5 |

## Exhibit IV-5

## EDS Five-year Financial Summary ($ Millions) (FYE 31-12)

| YEAR | 1986 | 1987 | 1988 | 1989 | 1990 |
|---|---|---|---|---|---|
| Revenue | 4,366.0 | 4,427.7 | 4,844.1 | 5,466.8 | 6,108.8 |
| Annual Growth Rate | 27% | 1% | 9% | 13% | 12% |
| Profit before Taxes | 464.0 | 524.3 | 589.4 | 680.3 | 788.7 |
| Annual Growth Rate | 28% | 13% | 12% | 15% | 16% |
| Profit after Taxes | 260.9 | 323.1 | 384.1 | 435.3 | 496.9 |
| Annual Growth Rate | 37% | 24% | 19% | 13% | 14% |
| EPS (Earning/share) | $1.07 | $1.33 | $1.57 | $1.81 | $2.08 |
| Annual Growth Rate | 36% | 24% | 19% | 15% | 15% |

However EDS is unlike the other vendors listed in Exhibit IV-4 in that

- a high proportion of its revenues originate outside Western Europe
- a high proportion of its revenues are captive, arising from the vendor's association with General Motors.

Another characteristic of EDS is that in the systems operations market, the company's emphasis is on targeting only the largest corporations and on targeting application operations wherever possible. While it is difficult to comment on the success or otherwise of this approach within Western Europe, it is clear that worldwide this approach, and the company's close association with General Motors, has yielded comparatively high levels of profitability.

While not reaching the heights of profitability attained by EDS, Hoskyns, which was one of the first companies to target systems operations in Western Europe, achieved very acceptable levels of profitability in both 1989 and 1990 as shown in Exhibit IV-6.

Exhibit IV-6

Hoskyns
Two-Year Financial Summary
(FYE 31-10) (£ millions)

| YEAR | 1989 | 1990 |
|---|---|---|
| Revenues | 188.7 | 223.3 |
| Annual Growth Rate | - | 18% |
| Profit before Taxes | 15.2 | 17.3 |
| Profit after Taxes | 9.6 | 9.9 |
| % Net Profit | 5.1 | 4.5 |

Whereas EDS' contract mix is predominantly oriented towards applications operations, Hoskyns has a wide mix of systems operations clients covering:

- Platform operations
- transition management (crossroads)
- application operations.

Traditionally Hoskyns has been particularly successful in the transition management market segment where the company has offered its "crossroads" service for many years. However while Hoskyns' profitability remains good, the company, like most other traditional systems operations vendors, is finding it increasingly difficult to win platform operations contracts in the face of severe competition. Hoskyns therefore has the immediate choice between falling profitability and falling market share.

The Sema Group and Finsiel, whose five-year summaries are shown in Exhibit IV-7 and IV-8 respectively, fall into the middle ground in terms of their profitability in 1990. However it is especially dangerous to draw strong conclusions from these figures since the proportions of their revenues attributable to systems operations are approximately 10%. Nonetheless both these vendors tend to be more active towards the platform operations aspect of the systems operations market.

## Exhibit IV-7

### Sema Group
### Five-Year Financial Summary (FYE 31-12) (£ Millions)

| YEAR | 1986 | 1987 | 1988 | 1989 | 1990 |
|---|---|---|---|---|---|
| Revenue | 78.7 | 113 | 266 | 293 | 375 |
| Annual Growth Rate (%) | 55 | 34 | 135 | 10 | 28 |
| Profit before Taxes | 5.8 | 8.2 | 12.9 | 17.5 | 15.3 |
| Annual Growth Rate (%) | 115 | 41 | 57 | 35 | -12 |
| Profit after Taxes | 3.6 | 3.1 | 5.0 | 10.9 | 10.4 |
| Annual Growth Rate (%) | 125 | -14 | 61 | 118 | -5 |
| EPS (Earning/share) | 10.4p | 13.1p | 8.4p | 11.6p | 10.5 |

If the 28% growth in 1990 revenue, 18% was attributable to acquisitions and 10% to internal growth.

## Exhibit IV-8

### Finsiel SpA
### Five-Year Financial Summary (FYE 31-12) (Lire Billions)

| YEAR | 1986 | 1987 | 1988 | 1989 | 1990 |
|---|---|---|---|---|---|
| Revenue | 455 | 575 | 699 | 901 | 1,049 |
| Annual Growth Rate | 38% | 26% | 22% | 29% | 16% |
| Profit before Taxes | 23.0 | 35.5 | 43.0 | 37.2 | 45.9 |
| Profit after Taxes | 10.9 | 17.7 | 21.6 | 17.3 | 26.2 |
| % Net Profit | 2.4% | 3.1% | 3.1% | 1.9% | 2.5% |

Axone, whose financial summary is shown in Exhibit IV-9, has the lowest net profitability, at 1.5% return on sales, of any of this group of vendors. However Axone may well be very satisfied with this rate of return since the company is aggressively targeting the platform operations and transition management segments of the market and has been achieving very high levels of revenue growth as a result.

Axone also believes strongly in the economies of scale which can be achieved in platform operations and in the necessity of managing down the cost of providing these services. If the company succeeds in these aims then it will become even more price competitive in platform operations while providing management with the opportunity to increase the profitability of its operations.

**Exhibit IV-9**

**Axone**
**Three-Year Financial Summary (FYE 31-12) (FF Millions)**

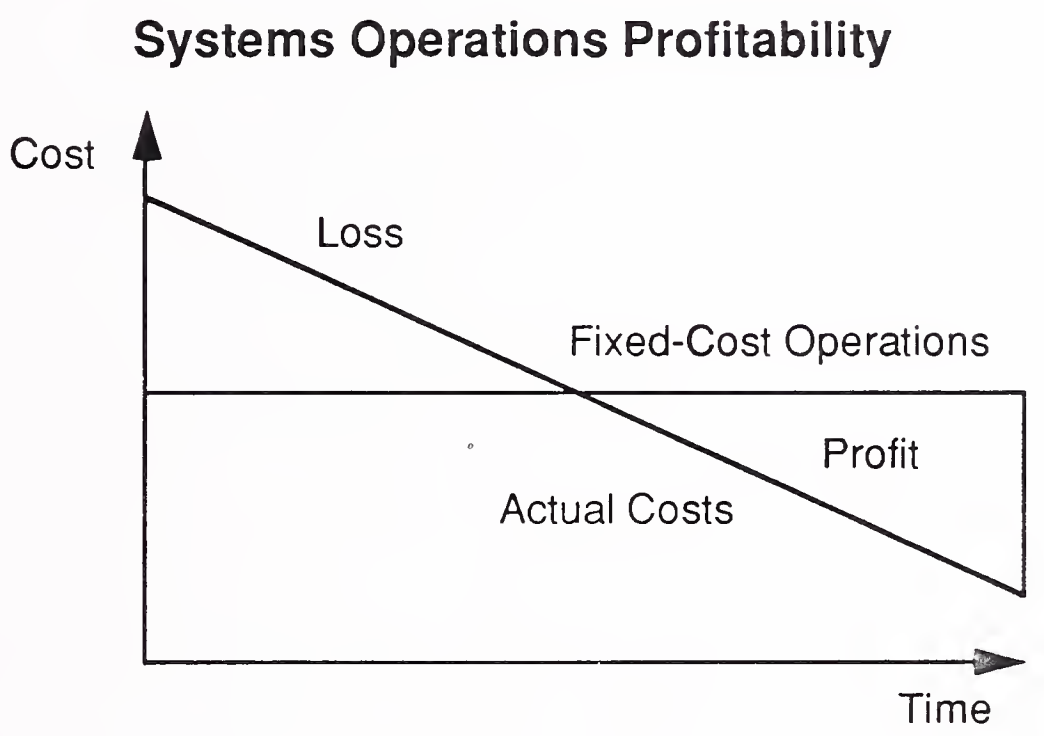
| YEAR | 1988 | 1989 | 1990 |
|---|---|---|---|
| Revenue | 64 | 135 | 190 |
| Annual Growth Rate (%) | - | 111 | 41 |
| Profit after Taxes | - | - | 2.8 |

## D
## Importance of Operational Efficiency

### 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-10 shows a graphical representation of the profitability model for a systems operations contract.

Exhibit IV-10



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-10, 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 country 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 I.S. 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 within 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 re-runs, 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 straight-forward 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 1990's.

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/400's 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 areas 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 failing 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 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 operation vendor that can address that need.

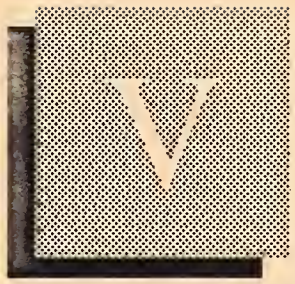
  

## 3. Operational Efficiency and Competitive Edge

As discussed, increases in operational efficiency are important in ensuring that each contract won by a vendor achieves profitability during the project lifetime. However another equally important reason for improving overall operational efficiency is to assist the vendor in becoming more competitive within the systems operations market.

Many vendors are finding the platform operations segment of the systems operations market presents difficulties in terms of price competition, and their reaction to this has been to refocus on more profitable segments of the market such as application operations. However since many new users of systems operations commence their take-up of systems operations initially via platform operations, which is the least threatening form of systems operations to in-house IS management, then it is important if vendors are to maintain market share that they continue to develop their platform operations activities.

Since the platform operations segment is particularly price sensitive, vendors must actively seek to reduce the cost of these services. While there are trade-offs to be made with respect to geographic coverage and local data centres, vendors should seek to achieve critical mass and take advantage of all possible economies of scale.



# Contact Renewals

# V Contact Renewals

## A
## An Opportunity to Increase Users' Commitment

The systems operations market is now sufficiently mature for a significant number of the early adopters of systems operations amongst the user community to have been through the renewal of their systems operations contracts. A number of characteristics which have been found to apply to the renewal process are that:

- Existing service levels are a crucial determinant of the success of the incumbent vendor
- If the service proposed remains unchanged, users will endeavour to drive down costs
- Users become more susceptible to adopting a total solution from the systems operations vendor.

The existing service levels which have been provided to clients are critical for vendors seeking renewals. If the service provided to the client prior to the renewal was less than satisfactory, then there is little chance of the client renewing with the same vendor. However, most clients are pleased with the levels of service with which they have been provided.

The principal area of dissatisfaction for clients tends to be in communicating their requirements to equipment operators at remote data centres, such as the schedules for one-off jobs and reports, and it is noticeable that these problems become particularly acute when there is a discontinuity or high turnover of personnel at the data centre. Clearly it is in the vendor's interests to endeavour to maintain continuity of client contact personnel in the immediate period prior to contact renewal.

Regardless of the quality of service provided, most vendors are finding that their clients are undertaking a serious re-appraisal of their requirements at the end of the initial contract period. There are two main reasons for this. Firstly, now that the client has used systems operations for a lengthy period, the company has much more experience on which to base its evaluation of its requirements and of the service it has received. Secondly the systems operations market will have changed markedly in the intervening period with many new vendors entering the market and a much wider range of service offerings available. Hence users feel that a serious re-appraisal of the market is necessitated. It is in the incumbent vendor's interests however to limit the scope of this review as far as possible. One approach to this could be to transfer the client to a rolling contract so that comparatively minor reviews of the contract are held regularly and major reviews are avoided.

Vendors are finding that users are attempting to use the renewal process to drive down the costs of the service and that user loyalty is comparatively low. This means that renewals are often undertaken at reduced prices to those initially in force if the contract terms remain similar. However, most vendors insist that if prices are to be reduced then there has to be a good reason for doing so: either genuine economies of scale, a contract of longer duration, or a reduced level of service.

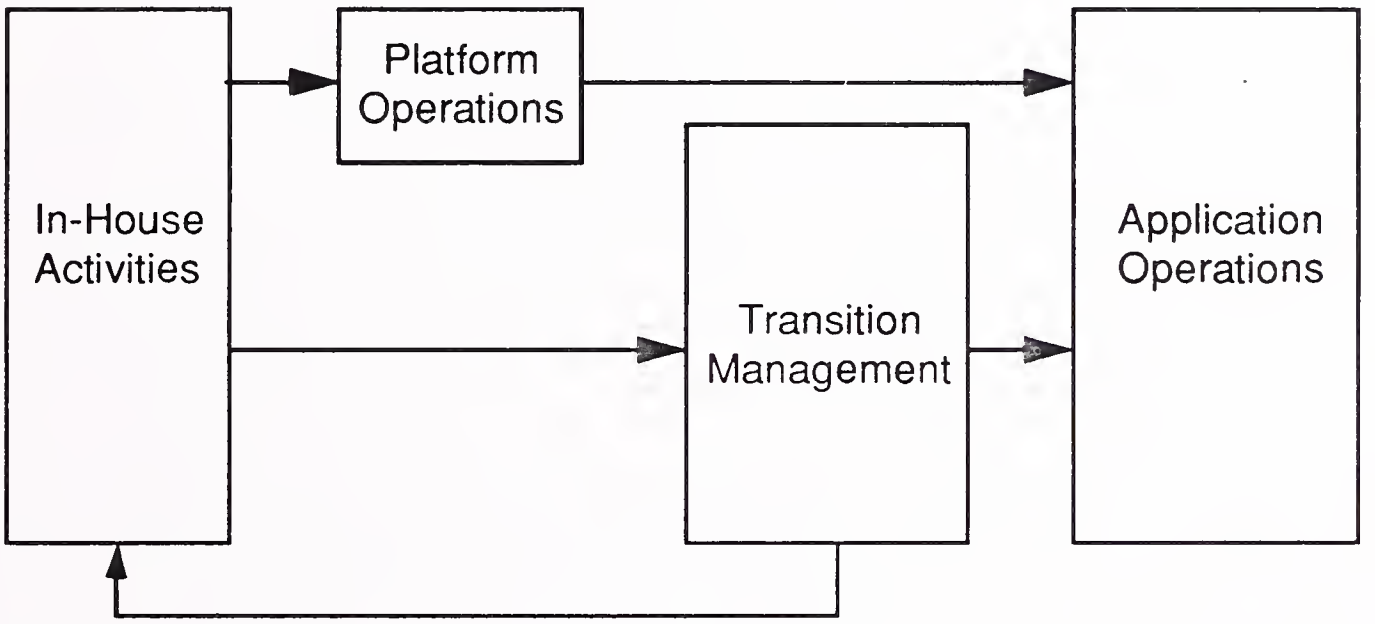
However, the positive side of the renewal process reported by vendors is that users are frequently willing, on renewal, to increase the scope of activities covered by the systems operation contract.

As illustrated in Exhibit V-1, users tend to adopt platform operations either for mainframe operations or transition management when they initially begin systems operations. These activities enable the user to fix the cost of a non-strategic area of their IS activities. However once companies have experienced systems operations, they begin to lose their fear of "loss of control" and find it more acceptable to use a systems operations vendor for wider aspects of their IS needs, including application management.

So platform operations contracts can much more readily be transferred into application operations contracts. Accordingly it is important that vendors are competitive in both platform operations and application operations since platform operations deals are often the forerunners of more lucrative application operations contracts. This task is made especially challenging for vendors since the criteria for success differ markedly between these segments. Platform operations success depends primarily on the vendor's efficiency in providing a reliable, low cost service while application operations success depends on the client's view of their industry and business knowledge and the likelihood of the vendor effectively applying this knowledge to develop appropriate information systems for the client.

Exhibit V-1

## Typical User Evolution
## Systems Operations, Western Europe



## B
## Mid-Range Based Systems Operations Increasing

Besides the trend for vendors to develop their existing client bases to counter the low profitability being encountered in targeting new users of systems operations, other trends now apparent in the systems operations market are:

- An increased emphasis on transition management
- An increase in deals involving AS/400 and other mid-range equipment
- Greater interest in network management and contracting out desktop services.

Firstly as users downsize from their mainframes and/or migrate to open distributed systems so the market for transition management is growing rapidly. At the same time, networking is increasing in importance as an element of systems operations contracts and a number of vendors are positioning offerings solely to cater for network systems operations.

Thirdly, possibly triggered by transition management deals, systems operations is no longer the preserve of mainframes. A significant number of contracts have now been undertaken where the base platform is the AS/400 or distributed systems. Approaches to generating profitability from AS/400 contracts vary with some vendors ensuring that development and maintenance activities are carried out off-site and other vendors looking to remote management of the equipment to maintain profitability.

# Appendices

# Appendix A Vendor Questionnaire

1. (a) How is your SO business being affected by the recession?

(b) What current levels of growth are you experiencing in SO?

2. Are you affected by a trend to downsizing? How?

3. (a) What types of SO service do you offer?

(b) What are the most common combinations of service elements?

(c) Which segment is the fastest growing?

(d) In which industries are you experiencing growth in SO?

4. (a) What are the major factors which impact the profitability of your SO operations?

Positively:

Negatively:

(b) What proportion of your SO contracts are profitable? What causes these variations in profitability?

(c) Which types of contract are intrinsically the most profitable?

5. (a) What proportion of your SO users renew their contracts?

(b) How does the profitability of renewed contracts compare with that of the original deal?

6. (a) On what basis do you price your SO contracts?

- fixed price/fixed period
- time & materials
- resource utilisation
- number of transactions
- other

(b) How do you charge for the initial transfer of the service?

(c) How do you differentiate your services to avoid price competition?

7. (a) What actions are you taking to develop your SO business?

(b) What are the major constraints on expanding your SO business?

(c) How has the SO market changed over the last 12 months?

8. Company details

(a) How many systems operations contracts do you have in Europe?

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(b) How many staff are involved in systems operations?

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(c) What were your European systems operations revenues for 1990?

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Thank you very much for your assistance.