Scope of Outsourcing Market
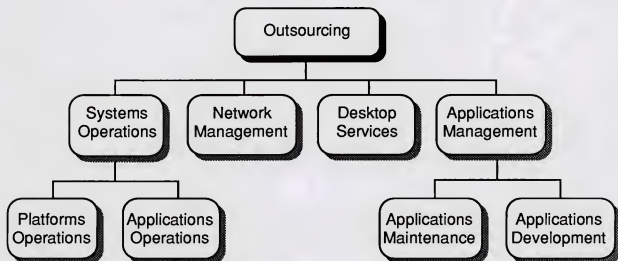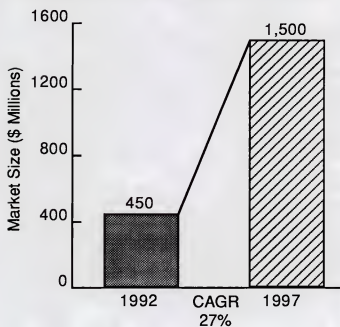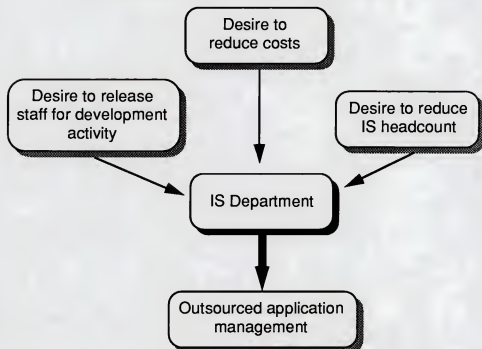
**Market Forecast, 1992-1997
Applications Management, Europe**

**Driving Forces
Applications Management, Europe**

Applications Management Growth by Country

	CAGR (Percent)
United Kingdom	30
France	28
Italy	26

Chart data:
- United Kingdom: 1992 = 130, 1997 = 480
- France: 1992 = 100, 1997 = 350
- Italy: 1992 = 80, 1997 = 160

Legend: ▓ 1992, ▨ 1997

X-axis: Market Size ($??), 0 – 200 – 400 – 600
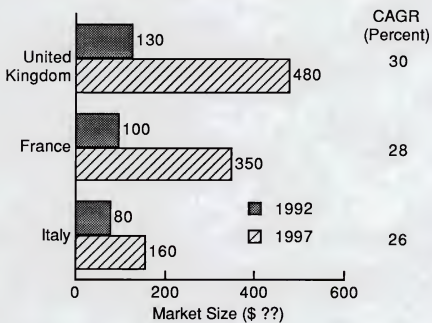
**Profile of Typical Application
Management Contract**

- Value: $2 million over three years
- Covers all commercial applications
- Cobol predominant language used
- Users highly satisfied

Future Outsourcing Intentions of Users

- Increased use of outsourcing
- Principal services ??????
    - Additional applications maintenance management
    - Network management
    - Desktop services

Leading Applications Management
Vendors—Europe, 1992

Vendor	Revenues ($ Millions)
CAP Gemini Sogeti	40
EDS	20
Sema Group	15
FI Group	15
Andersen Consulting	12

Applications Management Forecast
Europe, 1992-1997

Country	1992 Revenues ($ Million)	1997 Revenues ($ Million)	CAGR (Percent)
France	100	350	28
Germany	30	85	23
United Kingdom	130	480	30
Italy	50	160	26
Europe	450	1,500	27

Applications Management by Subsector
Europe, 1992-1997

Country	1992 Revenues ($ Million)	1997 Revenues ($ Million)	CAGR (Percent)
Application maintenance management	400	1,300	27
- Within transition outsourcing	320 *	850 *	22
- Stand-alone contracts	80	450	40
Application development management	50	200	32
Total-Application Management	450	1,500	27

*Revenues included within systems operations market forecast.

Leading Vendors, 1992
Applications Management, Europe

Vendor	Revenues ($ Millions)	Market Share (Percent)
CAP Gemini Sogeti	40	9
EDS	20	4
Sema Group	15	3
FI Group	15	3
Andersen Consulting	12	3
Data Services	8	2
ITnet	8	2
IMI	8	2
Finsiel	5	1
KB	4	1
Total Listed	135	30
Total Market	450	100

**Leading Vendors, 1992
Applications Management, United Kingdom**

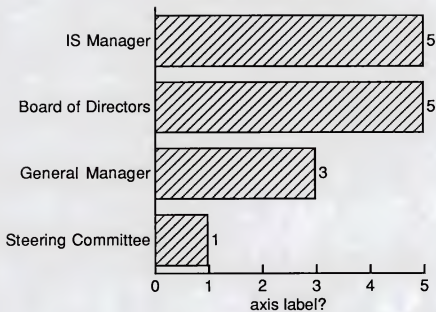| Vendor	Revenues (£ Millions)	Market Share (Percent)
Hoskyns	20	29
FI Group	8	11
Sema Group	7	10
Andersen Consulting	6	9
Data Services	4	6
ITnet	4	6
IMI	4	6
Total Market	70	100

Outsourcing Services Used
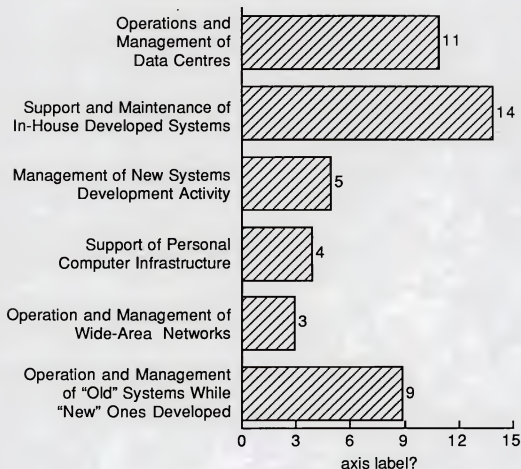
Sample of 15 users

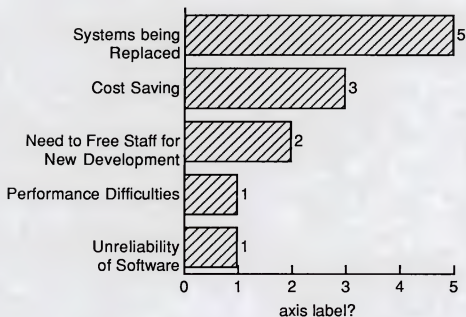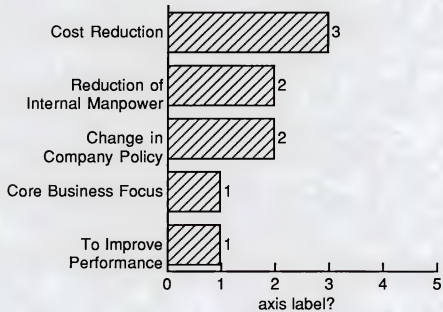**Key Decision-Makers**

Sample of 13 users

**Criteria for Adopting Application
Maintenance Management**

Number of instances of criterion scoring "5"
Sample of 15 users

**Reasons for Adopting Application
Maintenance Management**

Number of mentions
Sample of 15 users

**Expenditure on Application
Maintenance Management**

Spend per Annum	No. of Companies
≤ $100K	3
$100 < $500K	5
≥ $500K	4
Average	$700K

Sample of 12 users

Age of Applications

Age	No. of Users
Wide range	7
< 5	3
≥ 10	4
Average	7 years

Sample of 14 users

Continued Use of Applications

No. of Years	No. of Users
< 3	6
$3 \leq 5$	5
> 5	3
Average	3.2

Sample of 14 users

Applications Involved
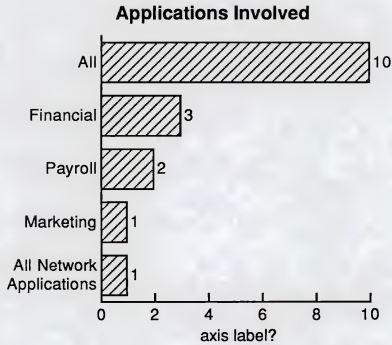
Sample of 12 users

Languages Used
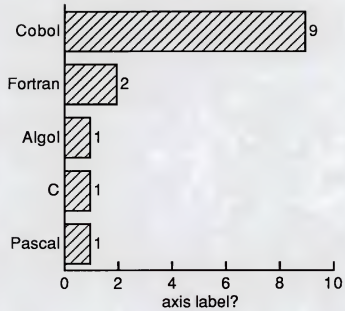
Sample of 12 users

Why Vendors Not Selected

Sample of 14 users

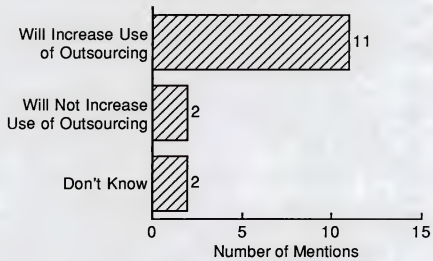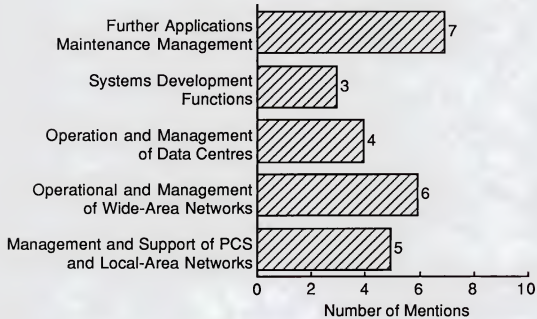**Benefits Achieved**
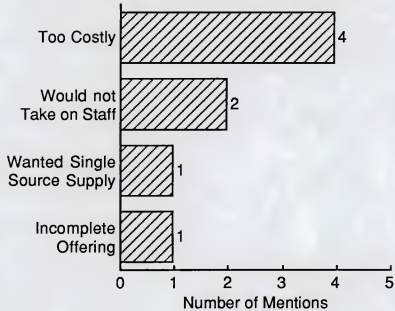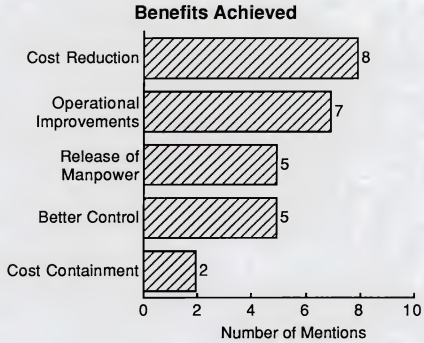
Sample of 14 users

Future Outsourcing Intentions

Sample of 15 users

Future Outsourcing Intentions

Sample of 14 users

B. Scope & Methodology

This report is based on interviews with fifteen users of outsourcing services, 14 of whom use applications management services, and interviews with fifteen outsourcing vendors.

The scope of the outsourcing market is shown in Exhibit I-1.

Exhibit I-1   Scope of Outsourcing Market
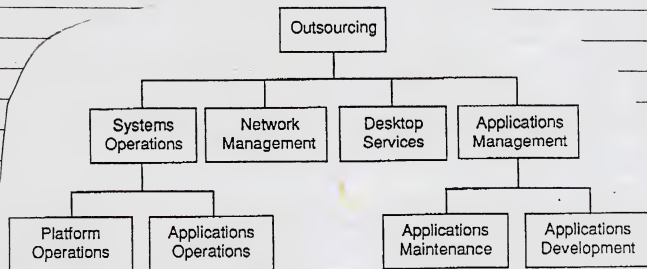
Each of these elements is defined as follows:

- *Outsourcing* - Contracting for all or a major portion of an information system function or process to a vendor on a long-term basis.

- *Systems Operations* - Contracting out, to a vendor, the information systems operations in either of two ways:

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

    Applications Systems Operations - The vendor is responsible for developing and/

Exhibit II-1

Market Forecast, 1992-7
Applications Management, Europe
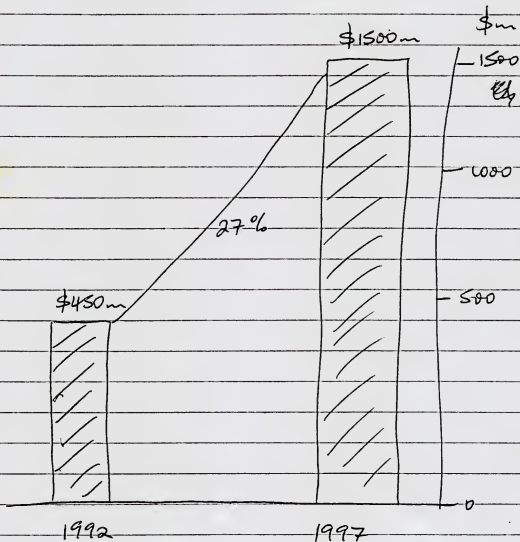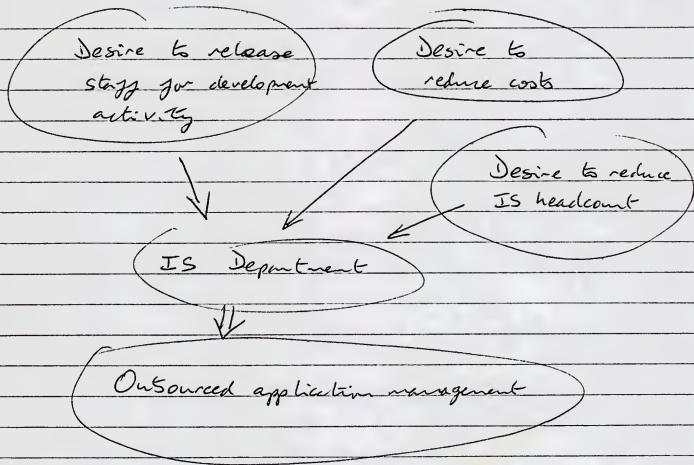
$1500m

$450m

27%

$m

1500

1000

500

0

1992   1997

Exhibit II-12

Driving Forces
Application Management, Europe

Desire to release staff for development activity

Desire to reduce costs

Desire to reduce IS headcount

IS Department

Outsourced application management

Exhibit II-23

8

Application Source Management Growth
by Country

CAGR

United Kingdom

130
480
30

France

100
350
28

Legend: 1992 / 1997

Italy

50
160
26

Exhibit II-4
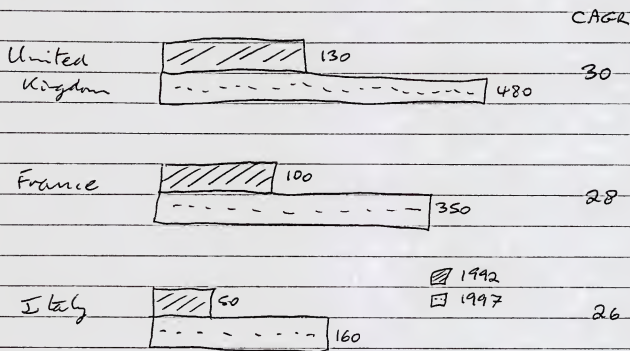
Profile of Typical Application
Management Contract

- Value $2m over three years

- Covers all commercial applications

- Cobol predominant language used

- Users highly satisfied

Exhibit II-5

Future Outsourcing Intentions
of Users

- Increased usage of outsourcing

- Principal services farmed
  - additional applications maintenance management

  - network management

  - desktop services

Exhibit II-6   16/

Leading Application Management Vendors
Europe, 1992

Vendor	Revenues $m
Cap Gemini Sogeti	40
EDS	20
Sema Group	15
FI Group	15
Andersen Consulting	12

Exhibit VII-1

Applications Management Forecast
Europe, 1992-1997

Country	1992 Revenues $m	1997 Revenues $m	CAGR (%)
France	100	350	28
Germany	30	85	23
United Kingdom	130	480	30
Italy	50	160	26
Europe	450	1500	27

Exhibit VI-2

Application Management by Subsector
Europe, 1992 - 1997

Subsector	1992 Revenues $m	1997 Revenues $m	CAGR (%)
Application Maintenance			
Management	400	1300	27
- within Transition Outsourcing	~~780 880~~* 320	~~750 850~~* 850	22
- Standalone Contracts	~~100 90~~ 80	450 ~~450~~	~~44~~ 40
Application development management	50	200	32
Total - Application Management	450	1500	27

Note: * Revenues included within systems operations market forecast.

Leading Vendors, 1992
Application Management, Europe

Vendor	Revenues $m	Market Share (%)
Cap Gemini Sogeti	40	9
EDS	20	4
Sema Group	15	3
FI Group	15	3
Andersen Consulting	12	3
Data Sciences	8	2
ITnet	8	2
ImI	8	2
Finsiel	5	1
K3	4	1
Total Listed	135	30
Total Market	450	100

Exhibit III-14

Leading Vendors, 1992
Application Management, United Kingdom

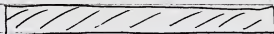| Vendor	Revenues $m	Market Share (%)	
Hoskyns	20	29	
FI Group	8	11	
Sema Group	7	10	
Andersen Consulting	6	9	
Data Sciences	4	6	
ITnet	4	6	
IMI	4	6	
	2		
Total Market	70	100	

Exhibit IV-1

Outsourcing Services Used

Operation & management
of data centres
 (11)

Support & maintenance of
in-house developed systems
 (14)

Management of new
systems development activity
 (5)

Support of personal computer
infrastructure
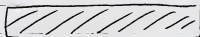 (4)
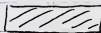
Operation & management
of wide area networks
 (3)

Operation & management
of "old" systems while
"new" ones developed
 (9)

Sample of 15 users.

Exhibit IV-2

Key Decision-Makers
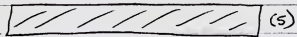
IS Manager   ///////// (5)
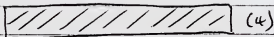
Board of Directors   ////////// (4)

General Manager   //////// (3)

Steering Committee //// (1)

Sample of 13 users

Exhibit IV-3

Reasons for Adopting
Application Maintenance Management

Need to release staff
for new development activity ///////// (5)

Cost reduction ////// (3)
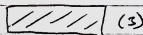
Reduction of internal manpower ///// (2)
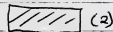
Change in company policy ///// (2)
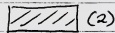
Core business focus // (1)
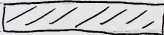
To improve performance // (1)

Number of mentions.
Sample of 15 users.

Exhibit IV-4

Criteria for Adopting
Application Maintenance Management

Systems being replaced	/////////	(5)
Cost savings	////////	(3)
Need to free staff for new development	////////	(2)
Performance difficulties	///////,	(1)
Unreliability of software	///,	(1)

Number of instances of criterion scoring "5".
Sample of 15 users.

Exhibit IV-5

Expenditure on Application Maintenance Management

Spend per annum	Number of Companies
< $100K	3
$100 < $500K	5
> $500K	4
Average	$700K

Sample of 12 users.

Exhibit IV-6

Age of Applications

Age	Number of Users
Wide range	7
< 5	3
≥ 10	4
Average	7 years

Sample of 14 users.

Exhibit IV-7

Continued Use of Applications

Number of years	Number of users
< 3	6
3 ≤ 5	5
> 5	3
Average	3.2

Sample of 14 users.

Exhibit IV-8

Applications Involved

ALL (10)

Payroll (2)

Financial (3)
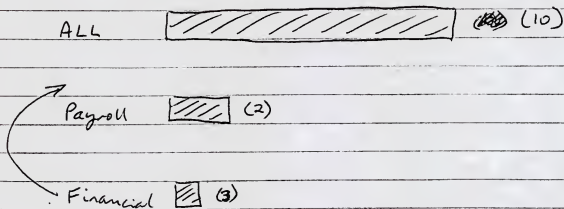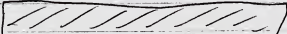
Marketing (1)

All network applications (1)

Sample of 14 uses.

21

Exhibit IV-89

Languages Used

Cobol   [/////////] (9)

Fortran [///] (2)

Algol   [/] (1)

C   [/] (1)

Pascal   [/] (1)

Sample of 12 users.

Exhibit 1V-10

Why Vendors Not Selected

Too costly ⟦▨▨▨▨⟧ (4)

Would not
take-on staff ⟦▨▨⟧ (2)

Wanted single
source supply ⟦▨⟧ (1)

Incomplete offering ⟦▨⟧ (1)
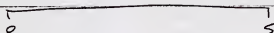
```
0                           5
```
Number of mentions

Sample of 9 users.

Exhibit IV-11

Benefits Achieved

Cost Reduction (8)

Operational Improvents (7)

Release of manpower (5)
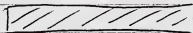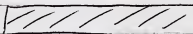
Better control (5)

Cost containment (2)

0   5   10
Number of mentions

Sample of 14 users.

Exhibit IV-12

Future Outsourcing Intentions

Will increase usage
of outsourcing ▨▨▨▨▨▨▨▨▨ (11)

Will NOT increase
usage of outsourcing ▨▨ (2)
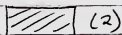
Don't know ▨▨ (2)

Sample of 15 users

Exhibit IV-13

Future Outsourcing Intentions

Further applications
    maintenance management   `////////////` (7)

Systems development facilities   `/////` (3)
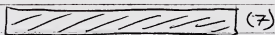
Operation & management   `//////` (4)
    of data centres

Operation & management of   `////////` (6)
    wide area networks
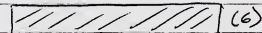
Management and support
    of pcs and local area networks   `////////` (5)
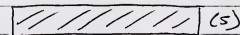
Sample of 14 users.

Exhibit V-1

Organization Structure — FI Group


```
                    FI Group Plc
                         |
    ┌──────────┬─────────┼─────────┬──────────┐
 FI Systems  FI Training  Kernel    AMP        FI
                        Technology  Computer   Scotland
                                    Recruitment
```
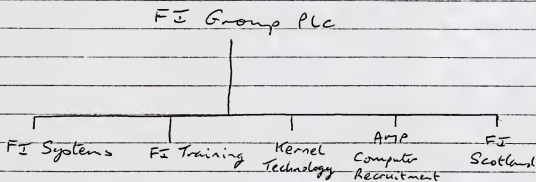
B. Andersen Consulting – Application Maintenance & Support
Is a New Service Line

In the United Kingdom, Andersen Consulting
is organized along the lines shown in
Exhibits V-2 and V-3.

Exhibit V-2

ANDERSEN CONSULTING - UK

```
                        ┌──────────────┐
                        │ Keith Burgess│
                        └──────┬───────┘
     ┌───────────┬────────────┼────────────────┬─────────────┐
┌─────────┐ ┌──────────┐ ┌──────────┐ ┌────────────┐ ┌──────────┐
│SERVICES │ │FINANCIAL │ │BUSINESS  │ │TECHNOLOGY  │ │PRODUCTS  │
│         │ │MARKETS   │ │OPERATIONS│ │AND         │ │          │
│         │ │DIVISION  │ │MANAGEMENT│ │SYSTEMS     │ │          │
│         │ │          │ │          │ │INTEGRATION │ │          │
└─────────┘ └──────────┘ └──────────┘ └────────────┘ └──────────┘
Terry Neill  David Andrews  Mark Otway   James Hall    Mike Ward
```
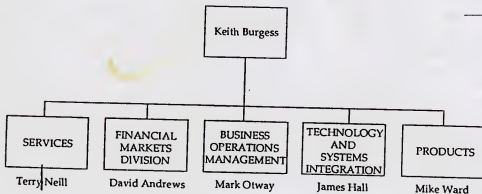
Source: AC

Exhibit V-3

BOM - FY93 ORGANISATON

```
                          ┌──────────┐
                          │ DIVISION │
                          │  HEAD    │
                          └────┬─────┘
                          Mark Otway

Gary Heffernan  ┌─────────┐              ┌──────────┐  Judith Hesketh
                │ FINANCE │              │PERSONNEL │  Janet Hayes
                └─────────┘              └──────────┘
```

ACSM OSLO	ENGINEERING SERVICES	PRODUCTION SERVICES	SALES AND SERVICE	ACCOUNTING SERVICES	IMPLEMENTATION
Bernt Holli	Tim Hall	Brian Zimmatore	Paul Archer	Norman Cook	Malcolm Howard
	Nick Evans	Tony May	Mike Hardy		
	Chris Turk		Phil Lobo		
Europe SM Coordination	Operations Engineering	PSC	SM Sales	ASA	Career Development
	Foundation Support	PSH	Client Service Management		Deal Implementation
	TASS	PSW	Service Centre		
	NUBSI		Applications Support		
	Programme Control		MAC-PAC support		
			LEASE-PAC support		

Source: AC

The activities shown ~~listed in~~ Exhibit V-3 are as follows:

- ACSM Oslo - Andersen Corporate Systems Manager responsible for the coordination of the world-wide systems management methods and techniques called 'Method/SM'.

- Engineering Services providing Operations Engineering services, consultancy within BOM, Foundation (a CASE tool), Programme Control (overall program control of all projects within each client, thus involving staff control, re-engineering and the rationalisation of hardware) and some government projects.

- Production services providing data centres in Bristol, Harrogate and London (the most recent)

- Sales & Service being primarily *Applications Management and Support.* (AMS)

- Accounting Services being primarily the outsourced accounting activity of BP Exploration of Scotland, but new clients are being added.

- Implementation including the management of systems particularly human resource issues.

Overall, The overall turnover of the Business Operations Management division in the United Kingdom is approximately $110 million, of which applications management accounts for $12 million.

1. Method/sm - The key to Success

Andersens illustrate their AMS definition and offerings through the use of a cube, shown in Exhibit V-4.

Exhibit V-4

WHAT IS AMS?

USER TRAINING
THIRD PARTY LIAISON
SERVICE CONTROL CENTRE
PROGRAMMING
USER QUERIES AND
INTERFACES TO
RELEASES
REGULATORY
FIXES
CHANGES
UPGRADES
OTHER SYSTEMS
ENHANCEMENTS

REMOTE

LOCAL

Source: AC

Exhibit V-5   11

METHOD/SM APPLICATION SUPPORT METHODOLOGY

Service Management

| Manage Service Definition | Manage Service Specification | Manage Service Engineering | Manage Customer Relationship |

Service Definition

| Assess Current Status Management | Define Service Specification Scope |

Service Specification

- Specify Service Delivery
- Specify Requirements
- Specify Service Control
- Plan Service Engineering
- Specify Resource Management

Service Engineering

- Engineer Service Delivery Management
- Prepare Transition
- Engineer Service Control
- Service Transition
- Engineer Resource Management

Service Delivery

Service Delivery Management

- Liaise With Users
- Manage Service Request
- Control Modification
- Introduce Modification
- Control Processes
- Evaluate Processes
- Plan Processes

Quality Assurance
Perform Service Provision Reviews

Source: AC

Exhibit V-6

Outsourcing Product Lines
Hostings

- Mid-range

- Mainframe

- Application management

- Desktop services

ITnet Application Support Methodology

```
┌─────────────────────────┐
│  INVESTIGATE &          │
│  RESOLVE                │
│  QUERIES               │
└─────────────────────────┘
```

THE CLIENT

queries
assistance

IDENTIFY SUPPORT TASKS
- log all tasks
- analyse request
- classify request
- agree priority with client
- schedule work
- report back to client

SYSTEM TRACKING
- review daily operations
- identify critical fixes
- report on daily performance

ENHANCEMENT PLAN

Agree with Client

CHANGE ANALYSIS
- identify scope of change
- cost/benefit study
- client agreement
- specify change
- review specification
- plan tasks/resource

PERFORMANCE MONITORING
- review history
- identify trends
- recommend improvements
- report on progress & achievements

APPLICATION CHANGE
- change programs, data, JCL, etc
- unit test
- system test
- update all documentation
- quality check
- liaise with client

IMPLEMENTATION
- client training
- acceptance testing
- client authorisation
- transfer to production

PROBLEM TRACKING:
* All tasks logged and assigned priority
* Progress monitored at each stage
* Client updated on progress
* Analysis of workload
* Client reporting

Source: ITnet

ITnet establishes a clear set of Service Levels for every Applications Support ~~team~~ project providing the client with a clear view of the service and its minimum level, with only minor fluctuation and guaranteed resource availability. Service Levels typically cover the following:

- the extent of support cover (hours per day, week and year)
- guarantees to log, prioritize and follow-up every call or incident
- a definition of priorities related to the business
- a schedule and definition of regular management reports to be provided
- minimum percentage of high priority tasks to be resolved in a day
- initiatives to be undertaken to stop recurring problems and improve performance

Exhibit V-8 illustrates shows the reporting structure used for each project.

Exhibit V-8

Management Reporting
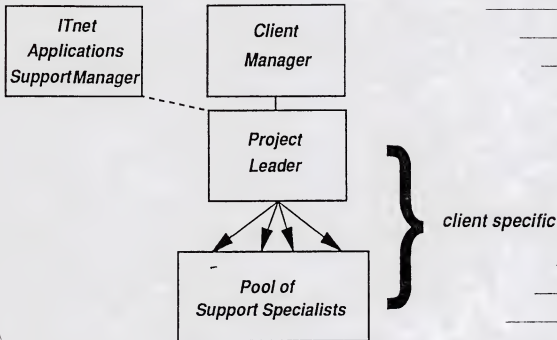
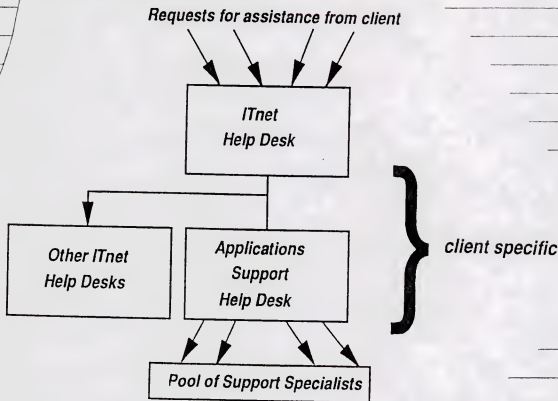Client calls for assistance are routed through the IT net Help Desk to the Applications Support Help Desk to the pool of support specialists *as shown in Exhibit V-9.*

Call/Problem Handling

Requests for assistance from client

ITnet
Help Desk

Other ITnet
Help Desks

Applications
Support
Help Desk

} client specific

Pool of Support Specialists

ITnet believes that technologies such as Telon and Code Surveyor have their place but the real key to success with a client's application management lies in the project management and methods and procedures tailored to suit the client's needs.

Example contracts include the following:

CCSB (Coca Cola Schweppes Bovril). This is a three year contract worth ~~£900,000~~ *$1.7 million* per year where ITnet provides applications management support for the Sales and Marketing, distribution, customer accounting and PC systems.

Tarmac. A further three year contract generating ~~£100,000~~ *$200k* per year providing applications support, primarily on payroll using Peterborough software. (ITnet claims to have specialist knowledge of Peterborough Software's products since they are in use with many clients).

Cadbury International. A three year contract providing support on the Dun & Bradstreet Millenium financial and accounting software generating ~~£70,000~~ *$130k* per year.

Westminster City Council. About to be announced is a seven year contract for a complete FM and AM outsourcing. The value of the applications management (AM) activity is estimated at ~~£500,000~~ *$1 million* per year.

B. 1. Case Study 1
User Profiles

Exhibit V-6

User Case Study - Government Sector - Scenario

IS Objective
- Improve user service / lower costs of economic model

Old Age Problems
- Plan to replace suit of applications
- Some software 20 years old
- Many change requests still
- Obsolete systems hardware/software
- Boring for staff, poorly documented
- High security site

Exhibits V-6 and V-7 summarise the experience of a Government department in contracting out the maintenance and support of a very old database application used for assessing the economic impact of EEC and local policy changes on a national industry.

The objective of contracting out to a third party was to improve the service received by the end-user and to lower the costs of running the service. Some applications are over 20 years old, and although the number of code changes is small, end-users are continually requesting changes to the application parameters and database fields.

To add to the difficulties of keeping the end-users satisfied, the applications run on an old mainframe using an obsolete operating system. The support staff were poorly motivated and eager to acquire a replacement system. The site and the application are subject to high security regulations.

Three vendors were invited to tender. The solution adopted after a careful analysis by the vendors meant a hand-over period of three months, during which one or two of the eight staff remained available to train the vendors employees.

The final terms of the service were a fixed price for an agreed level of support service, plus a time and materials portion for responses to end-user special requests.

Exhibit V-7

User Case Study - Government Sector - Outsourcing

Solution - Outsourcing
- 3rd-party staff working on-site
- Mix of time-and-materials and fixed-price
- 3 months parallel working hand-over
- Users interface direct with vendor

Benefits
- >50% cost saving on staff ~$70K p.a.
- 8 full-time staff replaced by 4 part-time
- System life extended 5 years
- Vendor handles all staffing

Perhaps the most interesting aspect of this example is the way the IS department passed full responsibility to the service vendor who now deals directly with the end-user department on all issues.

The potential cost of any changes is now visible to the end-user management in the form of costed quotations. This has allowed the end-user to improve his own decision making as to the cost effectiveness of changes being requested.

The exercise has been very successful, freeing eight IS staff for use on other projects, reducing the overall workload and dramatically improving the reliability of the system. This has enabled the replacement plans to be put off, freeing the budget for other uses.

The improvements in reliability are a spin-off from the vendor's strong management methods applied to the whole applications software environment. Far less time is now spent analysing and fixing problems (down to only 5%), or re-inventing solutions to problems which have occurred before. This has allowed the vendor to negotiate a lower cost service level which still satisfies the end-users needs.

2. Case Study 2

Exhibit V-8

User Case Study - Telecommunications Sector - Scenario

> IS Objective
>
> - Free-up staff & improve user service in materials management
>
> Problems
>
> - Demand for new business systems
> - Database growing out of hand
> - 5-year history of fast fixes to software
> - Bad system response times
> - 23 people - fire-fighting support

The second case study is outlined in Exhibits V-8 and V-9. It concerns a large IS group within a Telecommunications PTT, where there is tremendous pressure for new applications which reflect a more customer-facing business stance. Freeing up IS staff with valuable business knowledge was the main objective of considering outsourcing some support and maintenance activities.

The application chosen was a major inventory and warehouse management system implemented at several locations for a regionally organised end-user management.

The five-year-old system had been treated like most heavily used applications - speedy fixing of problems had taken precedence over elegant solutions. So short-cuts had been taken, resulting eventually in some response times, at peak hours, being totally out of hand.

With 23 people employed in supporting the applications, it seemed an excellent test case on which to judge the promises of the service vendor.

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

Exhibit V-9

User Case Study - Telecommunications Sector - Outsourcing

Solution - Outsourcing
- · 3rd-party took prime responsibility
- · Mix of in-house and 3rd-party staffing
- · 6 months for knowledge transfer
- · Client's quality system
- · Planned reviews under client's direction

Benefits
- · 19 staff released for new projects
- · Users happy - good response times
- · Call-outs reduced ten-fold
- · System reliability and life extended
- · Working practices adopted by client

The vendor established procedures for configuration control, software testing and release, which conformed to the users own internal quality procedures and standards. In fact considerable energy was put into establishing a tight teamwork approach with shared office space and good communications at all working levels.

The results were exceptionally good, with response times down to a level at which it is going to be hard to find an adequate replacement system in the future. There is no doubt that the system's life has been extended by pro-active management - compared to its previous reactive fire-fighting status.

The original high level of end-user complaint has given way to silent satisfaction and the original 24-hour emergency service level has been reduced to a normal working hours service.

Many of the new working practices introduced by the vendor have been adopted by the IS client management.