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DISASTER RECOVERY IN WESTERN EUROPE

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Disaster Recovery in Western Europe

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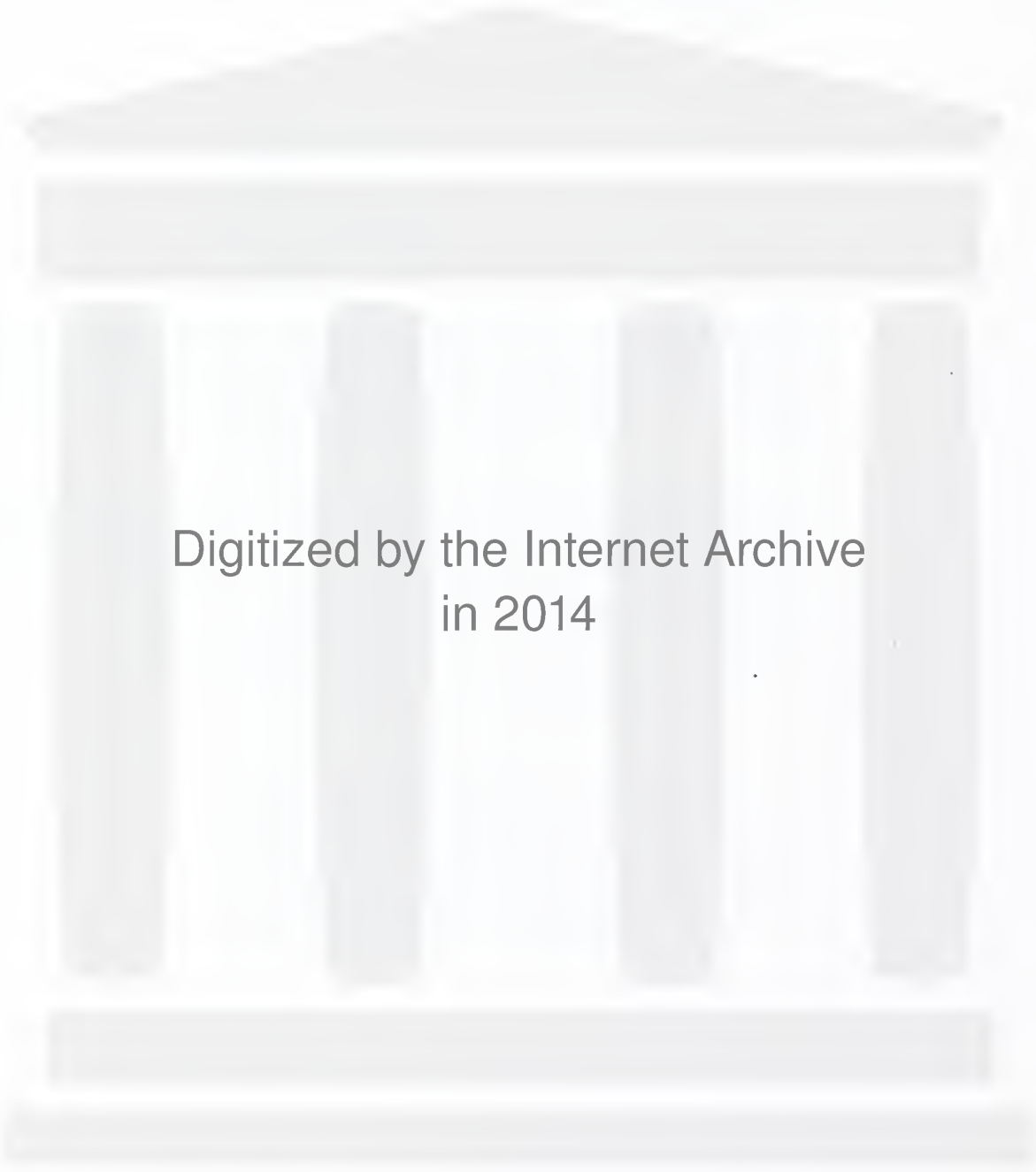
Abstract

Disaster Recovery in Western Europe–1988 provides an in-depth study and analysis of Disaster Recovery Services (DRS) within Europe. Included are estimates of the market size and forecasts for growth up to 1992.

In addition the report identifies the characteristics of the market, vendors currently active within the market and profiles on selected companies. Areas of opportunity for DRS have also been identified.

This report consists of 58 pages, including 23 exhibits.



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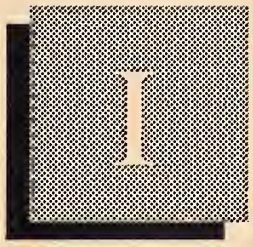
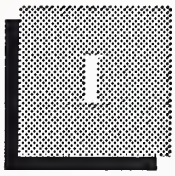


Introduction



Introduction

A

Objectives of the Report

This study was produced by INPUT as part of its Customer Services Programme—Europe. The topic was chosen because of the perceived growing awareness of the importance of computer security among both the user and the vendor communities.

Disaster recovery as a concept has been current in the computer industry for at least a decade, but it is being looked at afresh due to the general industry-wide move from old-fashioned batch processing to on-line-transaction driven systems. This trend has made it virtually impossible to implement the friendly-neighbour approach to the provision of a back-up service, since:

- On-line transaction processing systems are not sized to be able to take on another critical work-load during normal office hours.

The current interest in Disaster Recovery Services (DRS) is found to be equally shared by:

- Hardware vendors that see a new emerging revenue stream in the Customer Services area
- Independent service houses that see an opportunity to provide one or more services across a range of different equipment types

The main objectives of this report are:

- To provide a detailed overview of the Western European market for Disaster Recovery Services
- To suggest the best approaches to marketing of the services for the different types of suppliers, bearing in mind the various product/service portfolios into which each vendor's DRS will have to fit.

B

Scope and Methodology

The report addresses a variety of services usually associated with the concept of recovering from a major disaster at a significant data centre or processing complex. Specifically excluded from the market under consideration, for purposes of sizing and forecasting the segment, are:

- Issues associated with computer security and fraud

However, these issues are mentioned and discussed later in order to set the DRS segment into its overall context—which is to see it as one component within the EDP management's total information processing service to the agreed standards of its employers.

The geographic scope of the report covers:

- France
- U.K.
- West Germany
- Rest of Europe

Primary research, which contributed to the analysis in the report, came from three sources:

- Face-to-face and telephone interviews with 16 suppliers across the three major country markets, out of a total of 20 approached
- Informal discussions with a handful of major users, as a result of our ongoing research contacts during the period of the study
- User data derived from INPUT's 1987 research programme

Exhibit I-1 shows the breakdown of the formal interview programme by country and type of supplier.

Secondary research data included the specialist trade press sources.

C

Structure of the Report

The report is organised as follows:

- Chapter II is an executive overview which highlights specific areas of importance.
- Chapter III summarises the main parameters of the current DRS market and includes the five-year forward forecasts for the years 1987 (base year) through 1992.
- Chapter IV describes the various types of service being provided, and Chapter V provides an outline of the actual offerings of a selected

EXHIBIT I-1

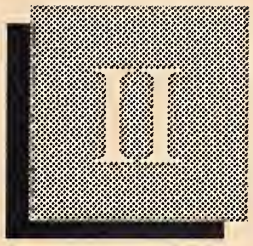
VENDOR INTERVIEW PROGRAMME

COUNTRY	TYPE OF VENDOR		
	MANUFAC-TURER	SERVICES SUPPLIER	ALL
France	-	3	3
United Kingdom	3	8	11
West Germany	-	2	2
All	3	13	16

number of vendors, chosen to illustrate at least one example of each of the main types of DRS service.

- Chapters VI and VII describe respectively the user and vendor perceptions of the market place.

- Chapter VIII rounds off the study by suggesting the most profitable ways in which these market opportunities can be addressed by vendors.



Executive Overview

II

Executive Overview

A

Disaster Recovery Services (DRS)—Western Europe

This report describes the emergence and forecast development of an identifiable market for Disaster Recovery Services (DRS). The forces that are driving the development of this market include:

- Increasing security consciousness within organisations as they place greater reliance on their computer operations, increasingly operating in an on-line mode
- Pressure from auditors, consultants and insurers for effective and professional contingency plans for computer systems

INPUT has identified four different types of service that constitute the DRS market for third-party services (see Exhibit II-1). These are:

EXHIBIT II-1

DISASTER RECOVERY SERVICES (DRS)
WESTERN EUROPE

- Hot Restart
- Warm Restart
- Mobile Restart
- Cold Restart

- Hot Restart – immediate or almost-immediate switch-over to a standby system
- Warm Restart – implying a much less immediate restart (typically a 'next day' capability)
- Mobile Restart – in effect warm restart provided through the medium of a computer room and configuration housed on a trailer or truck
- Cold Restart – the provision only of the computer environment into which the client can install the necessary computer configuration to recommence operations

INPUT has estimated that there are in excess of 3,500 DRS contracts in force in Western Europe at the present time. The vast majority of these are placed with independent vendors rather than with equipment vendors.

INPUT has estimated that this market represented in excess of $90 million of end-user revenues in 1987, and that it is likely to grow at an average annual rate of 25% to exceed $280 million by 1992.

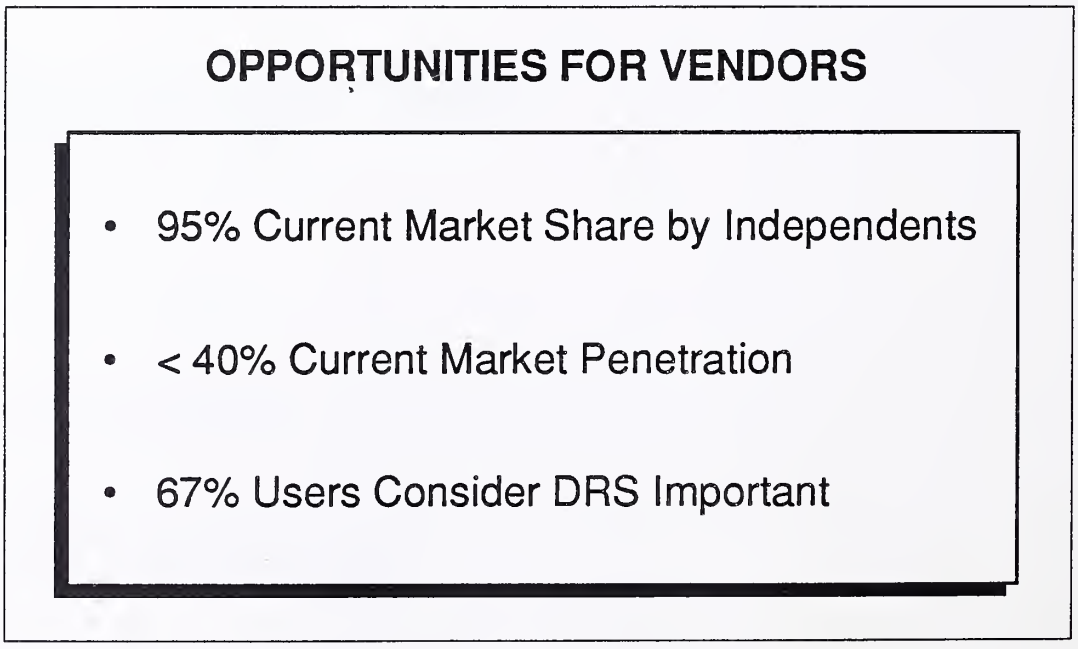
The DRS market thus represents a significant opportunity for customer service operations, particularly for equipment vendors concerned with offering a 'total' package of support services to their customers.

B

Opportunities for Vendors

Disaster Recovery Services present an opportunity for computer system vendors in a market not previously penetrated by them at a significant level. Currently the market is dominated by independent companies to the extent of a 95% market share. See Exhibit II-2.

EXHIBIT II-2



Additionally, the research indicates that on average only 40% of the total market has been penetrated to date. This leaves 60% of the market as yet untapped and open.

Although the survey indicated that 67% of users considered DRS important, the remaining 33% should be considered a potential target. In general, the attribution of a low level of importance to this area by users is due to lack of awareness or education concerning the potential hazards of a major computer system failure, or of the events that could lead up to such a failure.

It should be noted that a high percentage of the market is within existing customer bases.

C

Western European DRS Market Development

Exhibit II-3 briefly defines the size of the DRS market, which in 1987 was just over $90 million.

Market growth in DRS is projected at an annual average growth rate (AAGR) of 25% over the next 5 years, to exceed $280 million by 1992.

A slowing of service market growth, particularly for hardware service (forecast at 6% AAGR 1987-1992), enhances the attraction of DRS as an additional service for vendors to provide and an additional source of revenue and profit.

D

Market Forces

The market forces surrounding DRS, both those driving the market and those inhibiting growth, are summarised in Exhibit II-4.

The driving factors are essentially the basic need for and business dependence on computers and the corresponding requirement for information security and access. Coincident with these is the high cost of recovery from catastrophic situations and the unexpected and unquantifiable impact of natural disasters.

Inhibiting factors are in the main the lack of awareness and education about the impact of total system failure on the business. There exists also, perhaps, an unwillingness on the part of the DP community to fully come to terms with the vulnerability of their computer systems. This could be described as a 'head-in-the-sand' attitude.

The inhibiting factors represent a need and an opportunity for education and missionary marketing initiatives.

EXHIBIT II-3

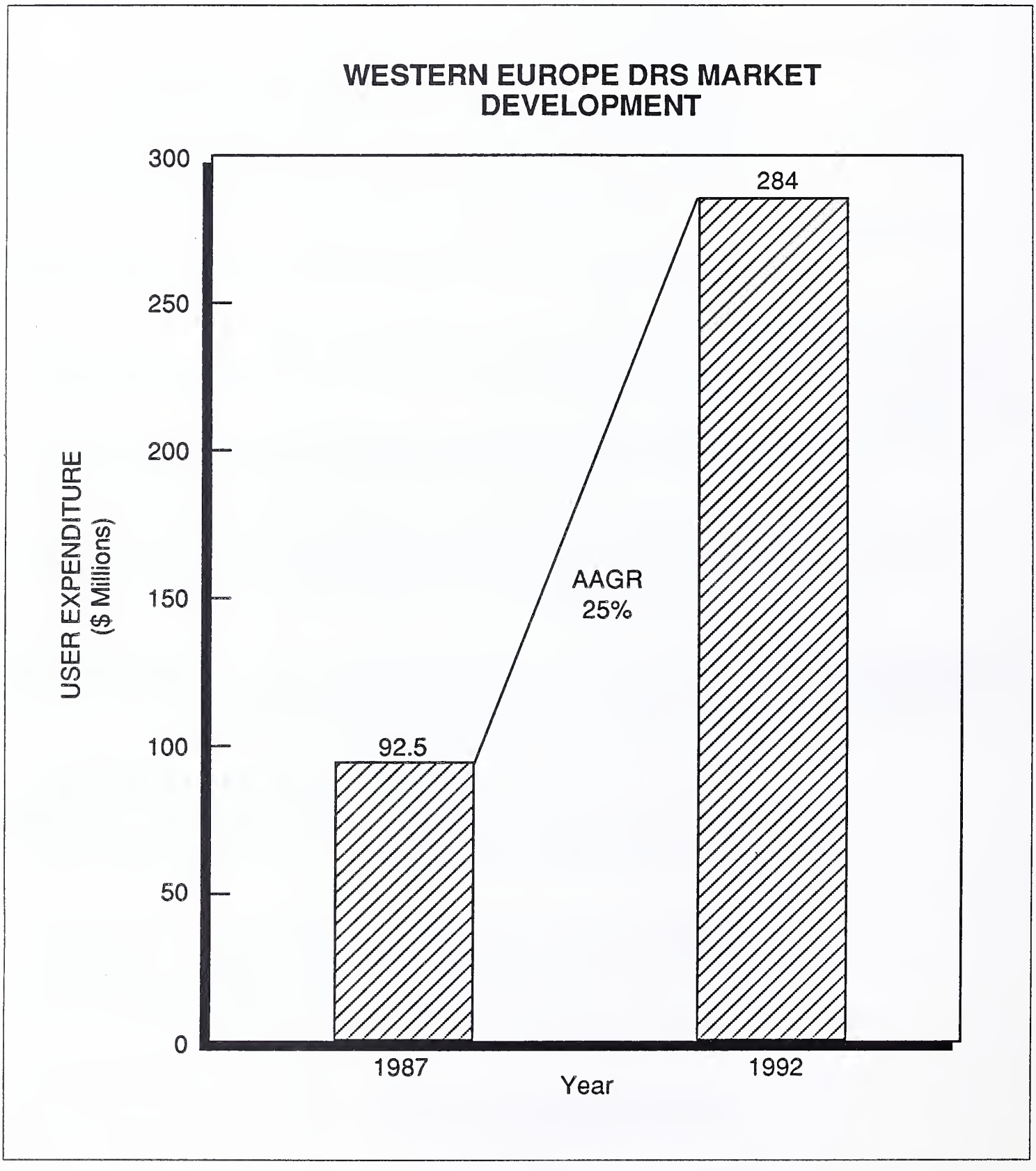


EXHIBIT II-4

E

DRS as a Service Product

Market dominance by independent companies underlines the inactivity of computer system vendors in what is considered to be an important market. Exhibit II-5 summarises the key motivations to develop DRS as a service product.

DRS is a logical and natural addition to a vendor's portfolio of service products, particularly when considered as part of a 'total solution' offering.

On average there is a 60% unsatisfied demand for DRS, even though a portion of this demand needs stimulating by educational awareness programmes.

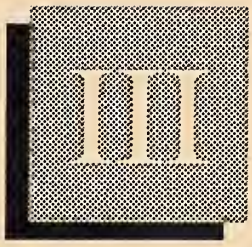
Providing consultancy in DRS could be an approach to developing this sector of the market.

DRS heads the list of 'opportunities for selling other services' as indicated by INPUT user research. The market lies within existing customer bases and thus makes it an approachable market, an opportunity for fuller penetration of the existing market.

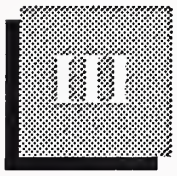
EXHIBIT II-5

DRS AS A SERVICE PRODUCT

- Natural Extension of Vendor Support Profile
- Part of Total Service/Total Solution Package
- 60% Unsatisfied Demand
- Consultancy Opportunity
- DRS Heads List of Service Opportunities
- Market Penetration Opportunity



The Market for Disaster Recovery Services



The Market for Disaster Recovery Services

A DRS as a Revenue Stream

The concept of Disaster Recovery Services (DRS) has been formulated for at least 10 years. This field has, however, been left entirely to the computing services vendors until relatively recently.

INPUT estimates that in 1987 the Western European market for DRS grossed revenues of $92.5 million, with around 50 suppliers operating almost exclusively in the confines of their own national markets. These vendors were:

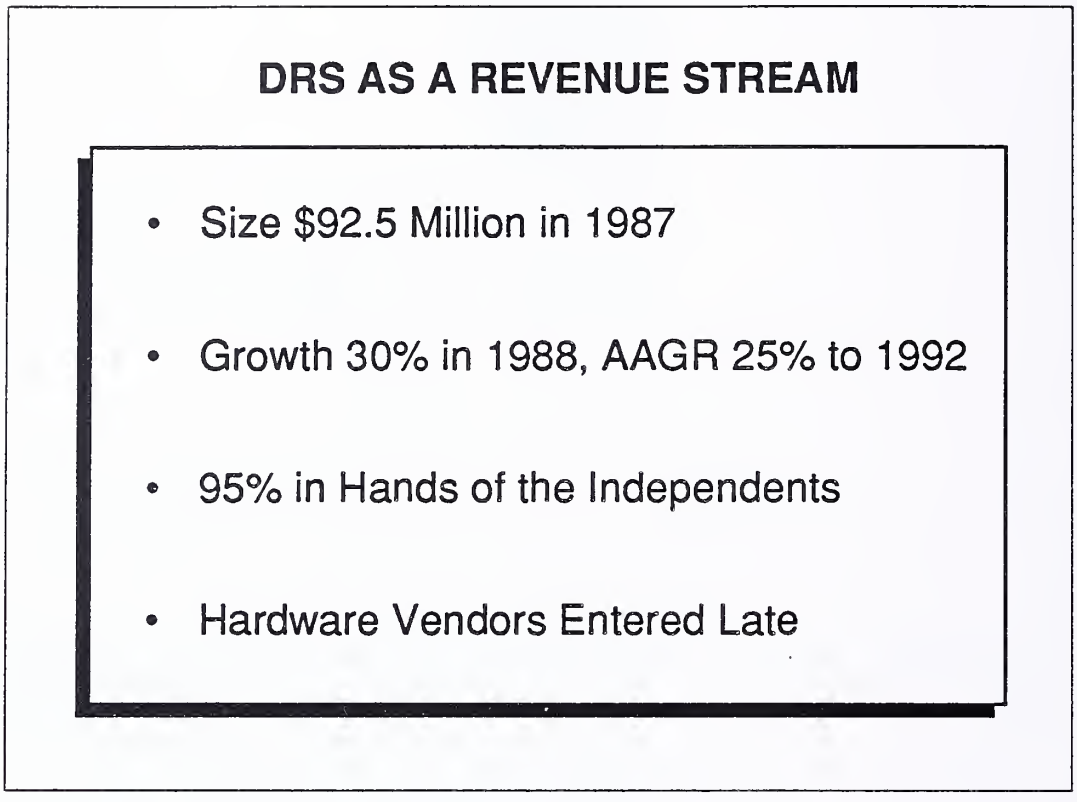
- Network services suppliers
- Local processing services companies
- A very few hardware vendors
- Professional services vendors offering security and audit consulting

INPUT's survey showed that the instantaneous growth rates being experienced by vendors ranged from 20% up to an instance of 400%. The AAGR between 1987 and 1988 for the sector is forecast to reach 30%, while for the forward five years to 1992 an AAGR of 25% is predicted.

Ninety-five percent of this market is currently in the hands of the independent service suppliers; only three equipment vendors were found to be active in the market.

Exhibit III-1 summarises the opportunity that DRS represents as a revenue stream.

EXHIBIT III-1



B

The Growth of DRS by Subsector

Segmentation of the DRS sector has evolved in accordance with the length of the 'fix' time offered in the recovery service:

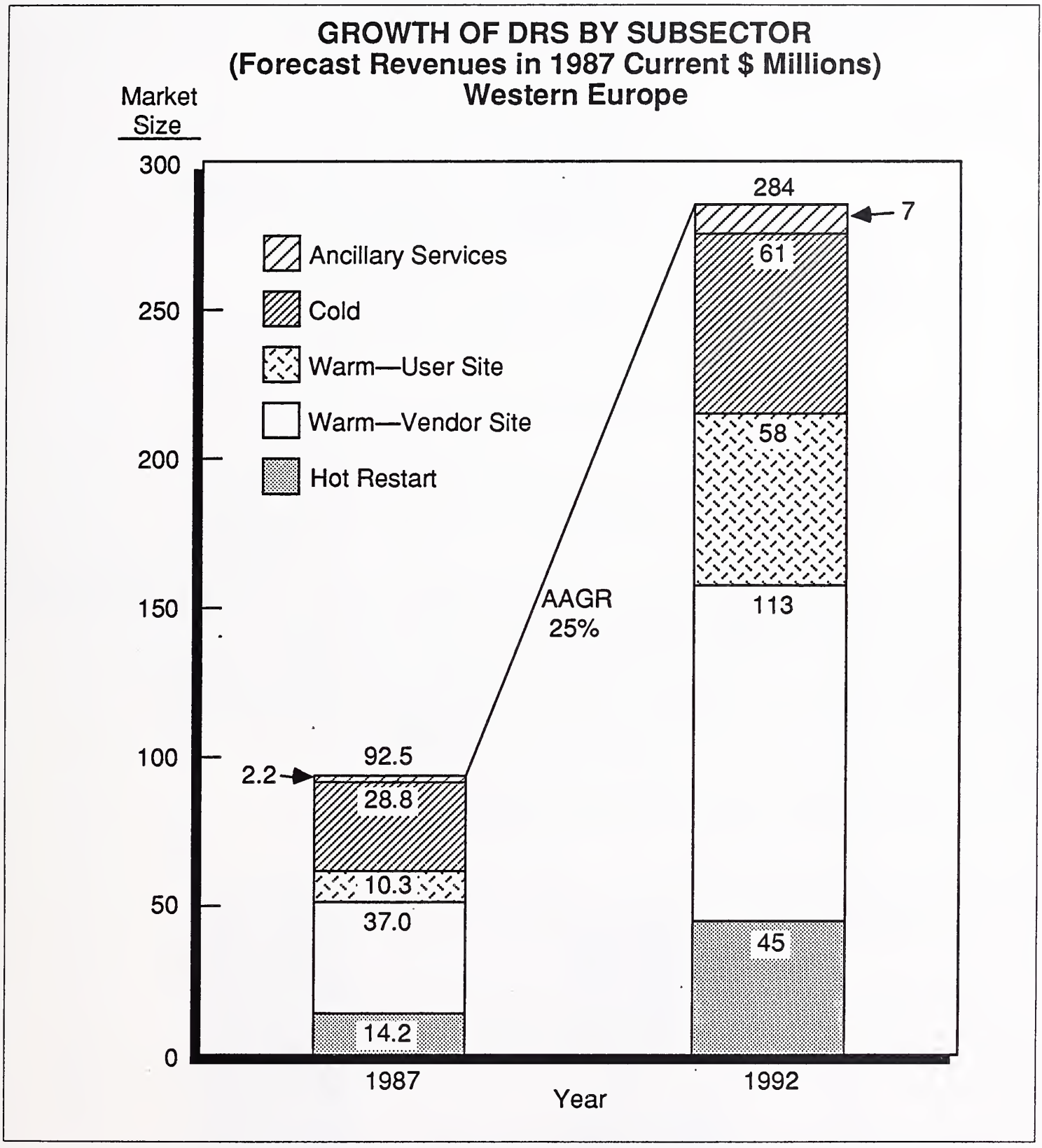
- The 'fix' time is thought of as the period between the report of the disaster incident and the re-establishment of a working hardware set or of working hardware with system software or of a working environment (in the case of a 'building only' service).
- Hot or Warm services involve short time-scale recovery with hardware.
- Cold services involve the building and controlled environment only.

DRS can be sited on either vendor or user premises.

Exhibit III-2 illustrates the growth of the market by subsector over the five-year period 1987-1992:

- Warm Restart, which is the largest subsector, has been split between the vendor- and user-site-based alternatives.
- Warm Restart on the vendor site is the largest segment and is forecast to retain its leading role.

EXHIBIT III-2



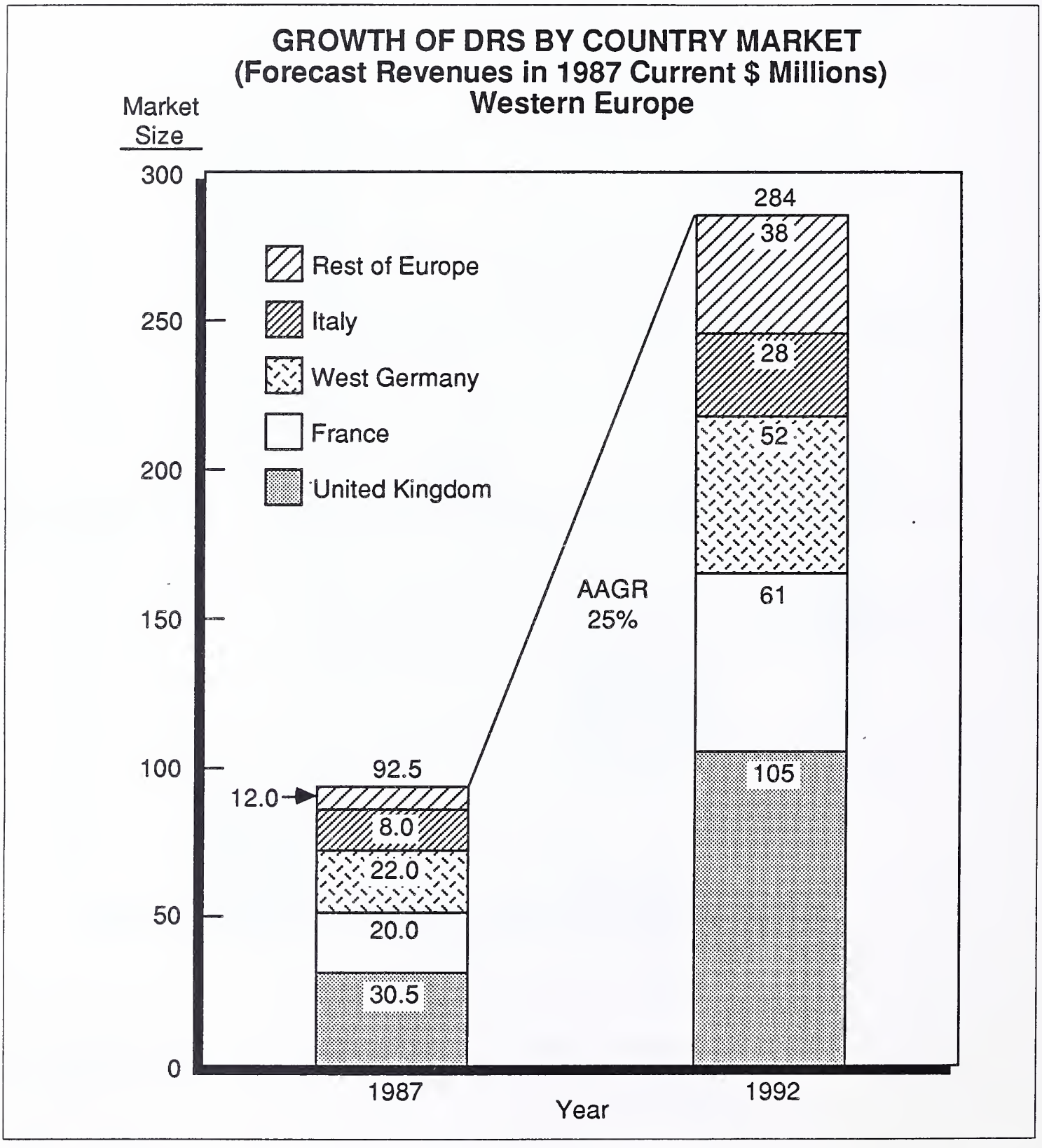
- Warm Restart on the user site, which includes the use of 'Mobiles' (computers in trucks or vans), has the highest growth rate, increasing its size five fold.

C

The Growth of DRS by Country Market

Exhibit III-3 shows the growth of the sector across the major country markets of Western Europe.

EXHIBIT III-3



The U.K. has so far been most receptive to the penetration of DRS and is forecast to retain its leading market share. Over 15 service suppliers are active at present, and the market is growing at 38% per annum.

France reports a profile similar to the U.K. but with a less-well-developed Warm Restart sector. Mobile units are just starting to appear on the scene. French consulting companies are active in the market for security audits and contingency planning.

West Germany makes strong use of traditional methods of computer back-up, such as mutual agreements between large and medium-sized mainframe users, to come to each other's rescue in times of complete system outage. A small number of network services vendors have built up portfolios of Restart services, usually combining Warm and Cold facilities in a customer-tailored contract.

Italy has a small market share with a profile similar to France's.

The Rest of Europe has produced a number of Warm Restart services, typically one large 'IBM-based' service per important market—e.g., one in the Netherlands serving the Benelux and one in Denmark.

D

Seizing Opportunities

With only a 5% market share in 1987, the hardware vendors must decide whether they are in this sector in earnest, or whether it is just one more sector that their image demands them to be in. The 'total solution' approach to which they all currently aspire does not mean that they have to supply all services themselves. It is quite in order to subcontract those services that can be best provided by third parties.

DRS represents a new revenue stream for the Customer Services function of the principal IT systems vendors. As such, it must be grasped with both hands.

INPUT's survey shows that the hardware vendors are not putting enough sales staff on the ground to market DRS. Their percentage of sales personnel is half that of the independents.

The highest-growth segment in the DRS industry is the 'Mobiles' segment. This service option covers the burgeoning departmental systems market perfectly adequately; there is no need for large-scale vendor site services here.

Hardware vendors must ensure that DRS contracts are properly sold to new and existing customers, in the same way as maintenance contracts.

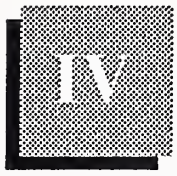
Exhibit III-4 summarises the opportunities.

EXHIBIT III-4

SEIZING OPPORTUNITIES

- Using the Customer Services Function
- Need for Sales Effort
- Highest Growth—Mobiles
- Departmental Systems

Current Services



Current Services

A

The Total Contingency Plan

Disaster Recovery Services (DRS) form part of a larger whole, the management of the Service Level provided by a company's or a public body's Information Systems function to its end users (at all levels within the organisation's structure). Service level can, in general, be affected in two ways:

- Quantitatively—i.e., when the availability of the service falls below the acceptable agreed threshold. This is normally something that can be handled by the ongoing maintenance contract, if the degradation is within limits envisaged by such contracts.

- Qualitatively—i.e., if the results appearing to the system users appear to be in error. Bugs and failures causing this type of defect in the Integrity of the system can normally be handled by the ongoing support facilities, provided by the suppliers of software and service, whether from in-house sources or from outside contractors.

There is a third type of problem which is caused by theft or illegal access to an organisation's data.

All three types of problem must be managed by an ongoing, updateable and updated (on a regular basis) Contingency Plan. DRS is only involved when the Availability of Integrity values fall to zero or as close to zero as makes no difference.

This report describes the market in Western Europe for DRS and auxiliary services allied to the maintenance of an updated Contingency Plan.

Four different types of service are described in the following sections. These are not necessarily competitive with each other, in that a user may find a place for more than one type within its overall Contingency Plan.

B

Hot Restart

Hot Restart implies the immediate or almost immediate switch-over from a failing or failed machine complex to a standby system of sufficient power to run the organisation's critical applications for as long as is envisaged in the Contingency Plan. Normally until the failing or failed system has been brought on-line again and is available to take on the full workload.

The immediate availability of the standby system can only be guaranteed to a single organisation if it is dedicated to the one user. In terms of response time to a disaster, we are talking of a matter of minutes before the standby system starts to take over, and at most a period of half a day before the 'fix' or swap to a second system has been completed.

Hot Restart is inevitably the most expensive of the options available to counter a physical disaster that has removed a company's mainframe from service. The option is favoured by large organisations, such as banks or other financial services suppliers, where the criticality of a world-wide operation is such as to endanger the existence of the enterprise if the mainframe operation ceases for any length of time.

The cost of Hot Restart starts at $100,000 p.a. and can reach to as much as several millions of dollars for the provision of large IBM 309x complexes, with building, environmental control, security control, equipment, etc. all to be taken account of. For organisations in which the computer complex is supporting critical operations producing revenues on the order of billions of dollars, this is a relatively modest outlay to ensure the continuity or even the survival of the enterprise.

Hot Restart is normally provided as a tailored facility for an in-house project team. As such it draws upon the standard suppliers of computer complexes, and through the forethought of its initiators, it does not involve fast reaction on the part of computer industry vendors of buildings, hardware, software, etc. INPUT does not therefore regard it at this stage as a part of the DRS open market segment (since it is usually an in-house service) unless the provision is made by an external supplier.

As organisations grow to the stage where their operational risks put them into the category for considering full Hot Restart, INPUT's model of the DRS sector envisages a departure from the open market sector into the in-house sector, somewhat analogous to the traditional 'migration' of educated users from a bureau service onto an in-house system.

C

Warm Restart

Warm Restart is currently the 'hottest' market sector within the overall DRS segment.

Warm Restart is aimed at providing a next-day computer facility rather than the immediate cut-over implied by full Hot Restart. Many vendors claiming to provide Hot Restart facilities are, in INPUT's estimation, only providing Warm facilities.

The principal difference between Hot and Warm Restarts is due to the fact that Warm Restart depends upon the provision of spare hardware that is *shared* among a number of subscriber users, typically between 10 and 25 per processor or system of processors, although in exceptional cases INPUT encountered quotes as high as 50 per processor. Under Warm Restart arrangements, therefore, the shared nature of the arrangements implies a degree of risk on the part of the subscribers and the supplier, in that multiple simultaneous calls upon the service could bring about a state of overload, which would have to be catered to by some form of contingency plan drawn up by the vendor and sold to the users as part of the overall service package.

Warm Restart consists of a service in which whole configurations of mainframe or mini-computers are made available on call to subscribers in a purpose-built machine-room environment on the vendor's premises. The location of these premises, for reasons of security (this also applies to the Hot Restart case), is normally not publicised, although over the course of time the principal locations of the main market players' sites have become known.

The service is normally charged for on an annual fee basis, so that the up-front investment cost of the hardware—borne by the service vendor—can be spread over the number of users. The philosophy of the service is that for 1/nth of the cost of providing the spare, 'ready-to-go' hardware, n subscribers can have *almost* immediate access to the whole of the configuration, providing not more than one call on the service is made at a given time or during the period when the "first" caller is using the system following a disaster.

The immediacy of the vendor's response is affected by the shared nature of the arrangements. When a disaster call is made, the hardware may not be unoccupied. Another subscriber may be in a trial situation (all DRS users are recommended or required to perform a certain number of true tests of their procedures per year) or even on the system for a valid disaster incident. Therefore, Warm Restart contracts cannot guarantee instant occupation. Typical values encountered ranged from 'at once' to 3 hours for response to an invocation, but expected the user to be in full occupation within 24 hours.

Because Warm Restart is sold to a number of users at a time, it can be marketed as a standard service, and therefore comes within the category of being part of the open market, currently available to the service vendors and hardware suppliers.

Because it centres around the provision of specific hardware configurations onto which users facing a disaster transfer their operations, it has become a subsector that is itself segmented by machine type.

Typical subscription charges found to apply in this sector ranged from $3,000 per annum for a small mini-computer configuration up to between $100,000 and $750,000 for mainframe cover.

The service is now being offered by both independent service suppliers and the equipment vendors themselves. However, only three hardware vendors are found to be supplying any form of DRS (and those were all offering Warm Restart).

D

Mobile Restart

Warm Restart as previously defined is provided on the vendor's site. An alternative that provides a similar level of service, i.e. almost next-day restart, is the use of a mobile computer room furnished with a computer configuration. It can be made available as soon as the trailer or truck in which it is contained can be driven to the user's site, and the power and data transmission lines connected.

This style of service is a more recent introduction (the earliest date of service launch quoted to INPUT was 1980), but it is increasingly popular with the mini-computer user.

It does not provide for the same level of guaranteed 'fix' time, because of the transportation lead time, but arrival on site within 24 hours and handover to customer within 48 hours are being quoted in the market place as entirely possible.

Although it lacks the ability to cope with the really large configurations of mainframe with all the necessary environmental conditioning equipment, it more than matches the Warm Restart service in:

- Flexibility of siting
- Convenience of access
- Europe-wide availability
- Range of manufacturers' equipment offered

For the user with a distributed processing philosophy, it appears to be the most cost-effective first-line DRS solution.

Costs range between $3,000 per annum and $50,000, depending upon size of configuration.

E

Cold Restart

Cold Restart facilities have been in operation since the mid-1970s. They are, like Warm Restart services, offered in two guises:

- Vendor site based, or Fixed Computer Centres, in which a user may resite its computer operations in the event of a disaster.
- User site based, or Relocatable Computer Centres, which can be installed on a user's premises at places like a car park or other unused open area.

The all-important difference between Cold facilities and facilities with any degree of 'warmth' is that cold centres only provide the building, environmental control, power and other electrical connections. It is left up to the individual subscriber to arrange for the computer equipment to be delivered to whichever of the two types of centre have been subscribed to.

Cold Restart facilities, therefore, depend upon the lead time of the equipment supplier to provide alternative configurations in the case where a total destruction of hardware has taken place. The standard lead times for erection and commissioning of relocatable centres are anything between 4 and 14 days, whereas a fixed centre can be made available for the installation of equipment on the same sort of time-scale as a Warm Restart centre can be freed for occupation.

Cold centre suppliers do not profess to provide the same degree of back-up as the 'warmer' approaches, and are often used as a secondary form of DRS, which can be invoked to come into play after the initial effects of the disaster have been absorbed by Warm or Mobile means.

The services are generally offered at a lower cost—between $5,000 and $15,000 per annum being a useful working range of contract values.

Cold Restart services have correspondingly more customers. INPUT's estimate for the European user base is between 3,000 and 4,000 out of a potential mainframe sector of approximately 15,000 sites.

F

Ancillary Services

A number of services are available to supplement the basic contracted facilities in all of the sectors described above. Ancillary services fall into two classes:

- Hardware services, comprising such things as extra standby generators, extra data communications facilities, heating and ventilating equipment, etc.

- Soft services, including systems programming assistance, contingency plan formulation and update tools, media back-up and archiving, temporary office facilities and office staff, consultancy services—particularly consultancy geared to the establishment of viable Security Procedures and Contingency Plans.

G

Other Methods of Achieving Back-Up

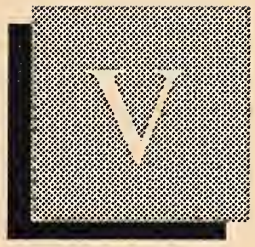
Three other methods of achieving back-up or DRS were encountered in the market:

- A user takes out a total facilities management (FM) contract in which the service level negotiated on a contractual basis is sufficient, when taken with the standing of the supplier, to give the user the 'peace of mind' it feels it needs.

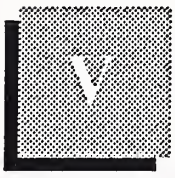
- Critical applications are switched onto a shared network service or other bureau machine.

- A user enters into a mutual cooperative agreement with one or more users of its choice, usually on the basis of geography or similar equipment use.

None of the above methods are included in the market figures used by INPUT in this report, because they are either a partial solution, included in another market sector, or not part of the open market.



Profiles of Some Market Leaders



Profiles of Some Market Leaders

A

Introduction

The profiles of the market leaders included below have been chosen in order to illustrate the different levels of DRS described in general terms in the previous chapter.

The five companies selected consist of:

- Four service suppliers
- One hardware vendor

Exhibit V-1 shows the relatively late entry of the hardware vendors onto the DRS scene in a histogram plotting the entry date for INPUT's vendor sample for this study.

B

Datashield

1. Company Background

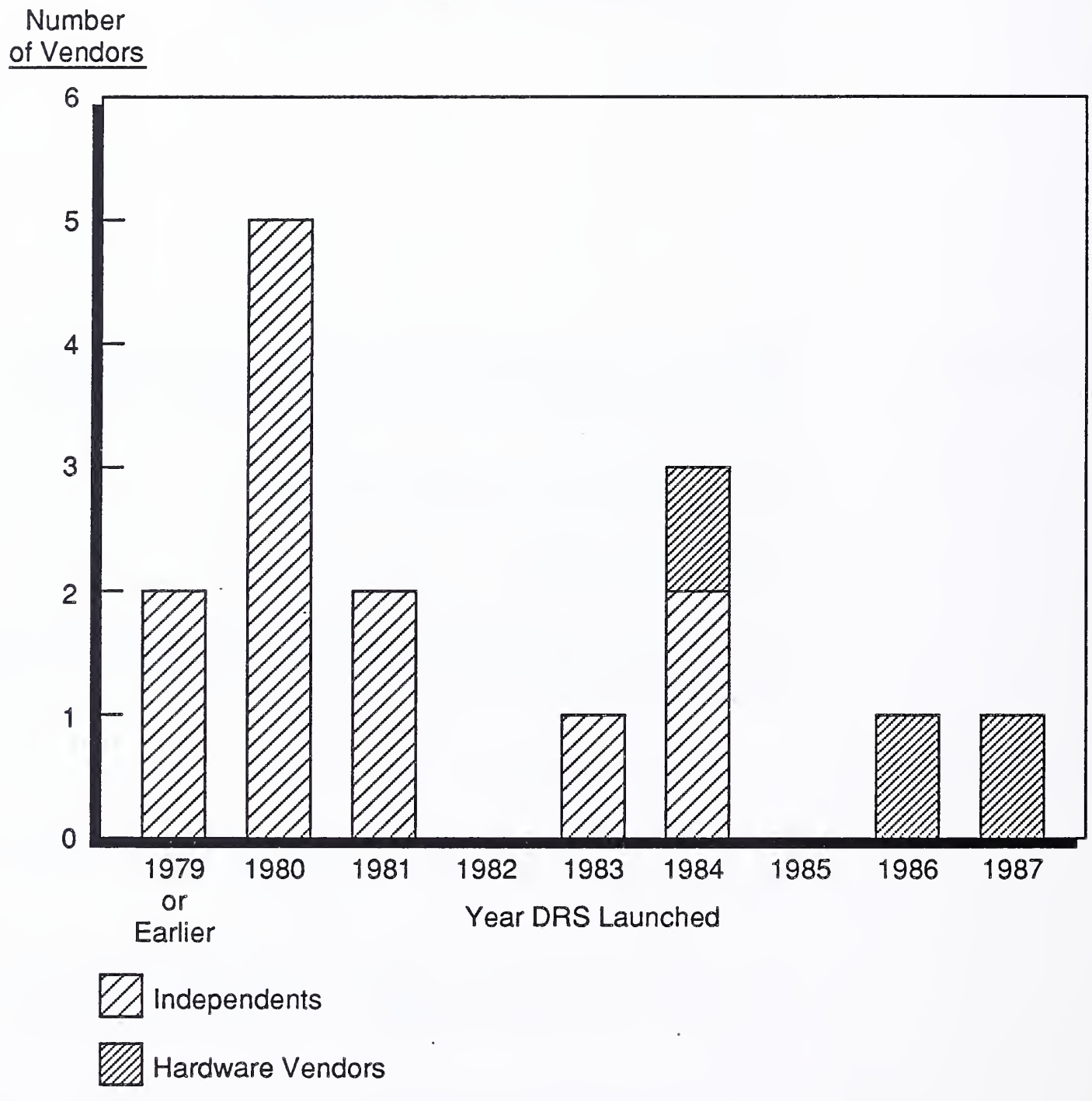
Datashield is the DRS subsidiary of the Datasolve group, which is itself part of the Thorn-EMI Information Technology Division of the U.K.'s Thorn-EMI group.

Datashield has been in operation since 1980 and operates closely within the overall Datasolve umbrella. Datasolve itself runs one of Europe's largest IBM-based machine complexes at Sunbury-on Thames outside London.

Datasolve employs over 1,000 personnel in the U.K. Datashield operates with around 20 specialist operational and marketing staff, who man two computer centres entirely dedicated to DRS. These are situated in West London and Croydon.

EXHIBIT V-1

INTRODUCTION OF VENDOR OFFERINGS



(Note: Out of 16 vendors interviewed, 1 vendor start date not known.)

The Croydon centre was established as a result of the 1987 acquisition of the LA Computer Services operation from the Belgian computer services group SGI.

2. Services Offered

Datashield operates in the Warm Restart sector with large and medium IBM users as the target market groups:

- The West London centre houses an IBM 3090/200E with disk and tape storage, laser printing, VDUs and communications capability. This centre also has an IBM 4341 with similar but lesser peripheral capabilities.

- The Croydon centre houses an IBM 4381 with a large cluster of peripherals.

Two services are offered:

- IBM Large Systems Standby Service on the 3090

- 4300 Standby Services on the other two installations

The maximum loading on any system is designed not to exceed 40 subscribers. Currently the services boast around 100 users.

Additional services comprise:

- Office premises, access to office services and staff

- Workshops and seminars, run under the auspices of Datasolve Education division

- A software product contingency planning tool called DP80 (Disaster Planning/80), which can be licensed for use by IBM and non-IBM users.

Datashield also offers two Cold Restart centres onto which disaster-affected subscribers can back off their systems after the expiry of the primary periods of occupation of the Warm sites. This type of back-up protects both Datashield and its customer base.

3. Marketing Approach

Datashield claims to be the joint market leader with ISTEL Failsafe in the U.K. IBM mainframe sector for DRS. This national market is currently sized at $10 million for 1987, and its growth is reported by the two main players to be 30% or more per annum.

The total number of target installations to be backed up with such a service is not more than 1,500 and growing at not more than 7% per annum. Current penetration is around the 10% level.

The service is marketed by a direct sales force of over 10 persons. Supplementary marketing is achieved through the media of mailshots, user groups and attendance at seminars.

Datashield brochures are aimed at different types of industry:

- Energy
- Financial services
- Manufacturing
- Retail and distribution

Expansion plans could take a number of forms:

- Geographic extension of operations to Europe

- Further penetration within the IBM market place

C
Bonndata

1. Company Background

Bonndata is a West German computing services company located in the Federal Republic's capital, Bonn. It has been providing data processing services since the late 1970s and achieved an estimated 1987 revenue of $40 million, with a staff of over 250.

Bonndata is a subsidiary of the Herold insurance group.

Bonndata runs a recovery centre (Ausweichrechenzentrum) alongside its other activities:

- EDP consulting
- System and application software development
- Bureau services
- Training
- A PC division

2. Disaster Recovery Services

Bonndata sees the status of DRS as firmly part of the larger problem of the total EDP function management. In particular, it is of the opinion that the formulation of the security strategy is the primary task facing senior and DP management before proceeding to the implementation using one or more DRS approaches.

The company offers a risk analysis consultancy service in which experienced staff are asked to assess risks resulting from:

- External events
- Poor internal 'housekeeping', e.g., inadequate physical protection
- Crime

The service is aimed at detecting the weak points in users' security methods and organisation, and subsequently drawing up a plan to improve matters and to set in place an updateable plan that can thereafter monitor and stabilise the security arrangements.

To implement recommendations stemming from the Consultancy Service, Bonndata can offer:

- Help with Cold Restart provision, consisting of:
  - Procurement and installation of a Cold Centre on user or vendor site
  - Development of emergency procedures
- Help in conjunction with Comparex with the provision of Warm Restart facilities

Bonndata has time-scales and plans laid for the provision of these services either for in-house purchase or using its own facilities. Both batch and on-line applications can be handled with separate systems, if necessary.

Lead times for the different approaches are quoted:

- Between 3 and 5 weeks for a Cold Start solution up to the time of availability of on-line working
- Between 1 and 7 days up to similar availability for the Warm Restart solution

Costs are calculated on the basis of the Mips rating of the processor complex required, ranging between:

- For 1 Mip approximately $12,000 per annum
- For 25 Mips approximately $220,000

Data transmission costs are extra, as a function of the number and type of lines required.

Bonndata compares a cost of around 2% of EDP budget to cover a disaster using DRS, against around 4% of annual earnings for standard personal life cover for an individual.

D

Hewlett-Packard Ltd.

1. Company Background

INPUT's respondent spoke for Hewlett-Packard Ltd. (HP), which is the U.K. subsidiary of the international computer and instrumentation corporation with $8 billion revenues in fiscal 1987. The U.K. subsidiary is responsible for $0.55 billion in sales revenues for the same period.

Hewlett-Packard Ltd. has situated its DRS offering within the overall HP Computercare support and maintenance portfolio of offerings. This emphasises the comprehensive or 'cradle to grave' nature of the HP approach to support.

HP Ltd. is the first of the corporation's subsidiaries to have launched a DRS offering; the UK is ahead of its sister company in the USA and is now being followed by the other European subsidiaries.

2. DRS Offerings

The company's DRS products were launched in 1986 and compose three levels of service, which can be purchased singly or in combination:

- *HPBackup* is the Warm Restart facility providing round-the-clock access to an HP 3000/68 processor-based configuration on an HP site.

- *HPStandby* is a Warm Restart facility that allows for the shipping of one of two HP 3000/42 configurations to the user's chosen site, for its sole use during a period of 42 days (primary period).

- *HPMobile* is a more recent addition to the offering, in which subscribers to the *HPStandby* service can access the machine in a fully equipped environment, provided by the Mobile truck or van in which it is delivered. The service thus obviates the need on the part of the user to provide its own computer room. The service has to be limited to the small and medium ranges of processor, because of the size constraints imposed by housing the equipment in the transporter.

HP also offers a series of two-day training courses, aimed at helping the user base to formulate sound Disaster Recovery plans. These courses are run in conjunction with a third-party, management consultancy specialising in this sector.

Annual subscription charges for the DRS range between $3,000 for *HPStandby* up to at least $13,500 for *HPBackup*, of course depending upon the detail of the actual configurations required. The Contingency Planning courses are $500 per attendee.

3. Marketing Approach

The services are aimed at HP 3000 users with a current HP Computercare maintenance agreement and are thus targeted only at the company's mainframe user base of several hundreds of units. Uptake of the service is still at a relatively modest level, and further marketing is going to be required to promote the services.

It is going to be necessary to train the whole sales force in the user benefits of DRS, so that, as an adjunct to the overall support package, the service becomes fully integrated into the company's product catalogue.

HP has competitors in the form of independent DRS suppliers, such as CDR (see profile below) and local processing services specialising in HP software and services.

HP is anticipating almost doubling its DRS customer base during 1988.

E

Computer Disaster Recovery Ltd. (CDR)

1. Company Background

At the time this report was compiled, CDR was a wholly owned subsidiary of DPCE Holding plc. DPCE has now been acquired by the Granada Group. The impact of this on CDR has yet to be assessed. The DPCE group is best known for its pioneering efforts in the field of third-party, or independent, maintenance, but the group has now diversified, both in terms of geography (DPCE now operates in North America) and in terms of other services, such as:

- Computer leasing
- DRS

DPCE as a group had 1987 sales revenue in excess of $60 million and boasts a staff of over 100 engineers.

CDR has a staff of 22, including marketing personnel. Revenues for 1987 are estimated to be $2.5 million, of which the majority was earned in the U.K., but with increasing activity on the European mainland.

2. DRS Offerings

CDR, like its parent group, is something of a pioneer, having been the first to introduce the Mobile Warm Restart option to the European market.

The services have been marketed since 1981.

Currently, three levels of service cover are offered:

- The Economy Plan guarantees equipment on the user's site within 48 hours, and allows the user to use the system at no charge beyond the annual premium for four weeks. Call-out must be activated by a true disaster situation, i.e., fire, flood or sabotage.

- For the Standard Cover plan, the guaranteed 'fix' time is 24 hours, and the allowable period on site is eight weeks.

- The highest level is called Super Cover and improves on Standard in the following ways:

  - The allowable period on site is 16 weeks.

  - A full on-site test and four 'remote' (i.e., on CDR's premises) tests each year are included, whereas Standard Cover only allows for one annual remote test.

The two top levels of cover are effective against any kind of computer disaster, whatever the cause, and are found in practice to be much more attractive to the present-day customer.

The current logistics of the operation can support three to four simultaneous disasters and have been known to do so.

Eight different types of vendors' minicomputers can be delivered on-site:

- DEC, HP, IBM, ICL, Prime, DG, Honeywell-Bull, Unisys

The first two vendors are the principal target sectors, with seven and eight units respectively and one-third of the customer base each, but additional vendors' equipment is expected to be covered in the near future.

The hardware can be delivered in the ready-to-use mobile computer room, or for installation in previously erected Cold Centres, such as those supplied by ROC (see profile below) or Colvin Computer Centres.

3. Marketing Approach

CDR markets its DRS from two locations in Europe:

- The company's headquarters in Birmingham, U.K.
- A site in Zaventem, Belgium, with easy access to the whole of the Continental motorway network

By the very nature of its chosen market sector, CDR is well placed to market a regional, i.e., European, service. In fact, it was the only vendor encountered during this study that has a credible regional offering. Other suppliers, either because of the fixed-site nature of their products or because of the bulk of the units to be brought to a user's site, are unfortunately restricted when it comes to expanding their service outside the intrinsically national markets from which they have sprung.

CDR also has the advantage that it is targeting the expanding market for departmental systems and, therefore, a UNIX-based sector in which flexibility and interchangeability of systems are basic characteristics.

This does, however, raise the possibility that the definition of a disaster incident may have to be more loosely interpreted in order to widen the prospect base. This trend is already evident in both Mobile Warm Restart and the other subsectors of DRS:

- For example, Sherwood Locum, the ICL-based Warm Restart vendor, is already operating a system of priorities that implements a step-wise gradation between a full disaster and a normal-processing-services-type application.

Ultimately, a continuation of this trend will break down the barriers between DRS and standard equipment hire!

As a specialist in DRS, CDR operates with a dedicated direct sales force of nine persons. The sector is said to be essentially cross-industry.

F

Recovery Operation Centres Ltd. (ROC)

1. Company Background

ROC is another specialist supplier to the DRS sector but is wholly independent of any parent company. Founded in 1978, it currently has a full-time staff of 12 persons and a turnover of $4 million.

ROC is dedicated to serving the Cold Restart segment, and its skills are centred round the project management of the speedy erection of relocatable computer centres into which users can bring their own replacement equipment. As such its staff does not include the people with the skillls required when a disaster actually occurs.

2. DRS Offerings

ROC concentrates on the provision of user-site or Relocatable Cold Restart computer centres. Three levels of service are offered:

- The Disaster Recovery Service is designed to provide for an environmentally controlled recovery centre constructed on the user's site within days of a disaster.

- The Emergency Rescue package provides a supplementary back-up service for those occasions when the computer room itself has been left intact but important items of ancillary equipment have been put out of action, e.g., in cases where power distribution or air-conditioning are affected.

- A Contingency Planning product is offered by ROC's Consultancy Division to cover both disaster planning procedures and the overall security audit.

The first two levels of service are included in the contract offered to subscribers on a one- to five-year basis. Typical annual costs of these contracts range between $8,000 and $12,000, and this fee covers:

- Indefinite use of the Recovery Centre

- Use of items called off from the Emergency Rescue service for one month (after which the user is expected to either purchase the item or pay a time-based fee for its retention).

3. Marketing Approach

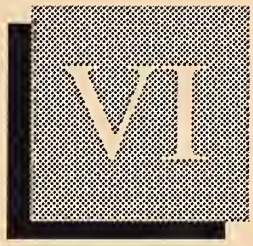
ROC has a customer base of over 400 organisations in the U.K., including many blue-chip companies. These users will in many cases be using the ROC services as a second-line back-up to a Warm or even Hot Restart solution.

On an estimated 2,500 large-to-medium-size mainframe prospect base in the U.K., the company is looking at possessing a 20% market share of its own particular chosen subsector, with at least another 20% being held by its main rival, Colvin. This sector, because of its relative maturity, is currently penetrated to at least the 40% level.

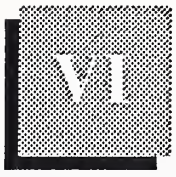
Players specialising in this sector must consider diversifying into other markets:

- Either with current services into other geographic areas

- Or into other product/service sectors



Some User Perceptions



Some User Perceptions

A

DRS as a Separate Revenue Stream

During INPUT's research for the 1987 Customer Services Annual Report, questions were asked of a sample of over 1,300 users throughout Western Europe.

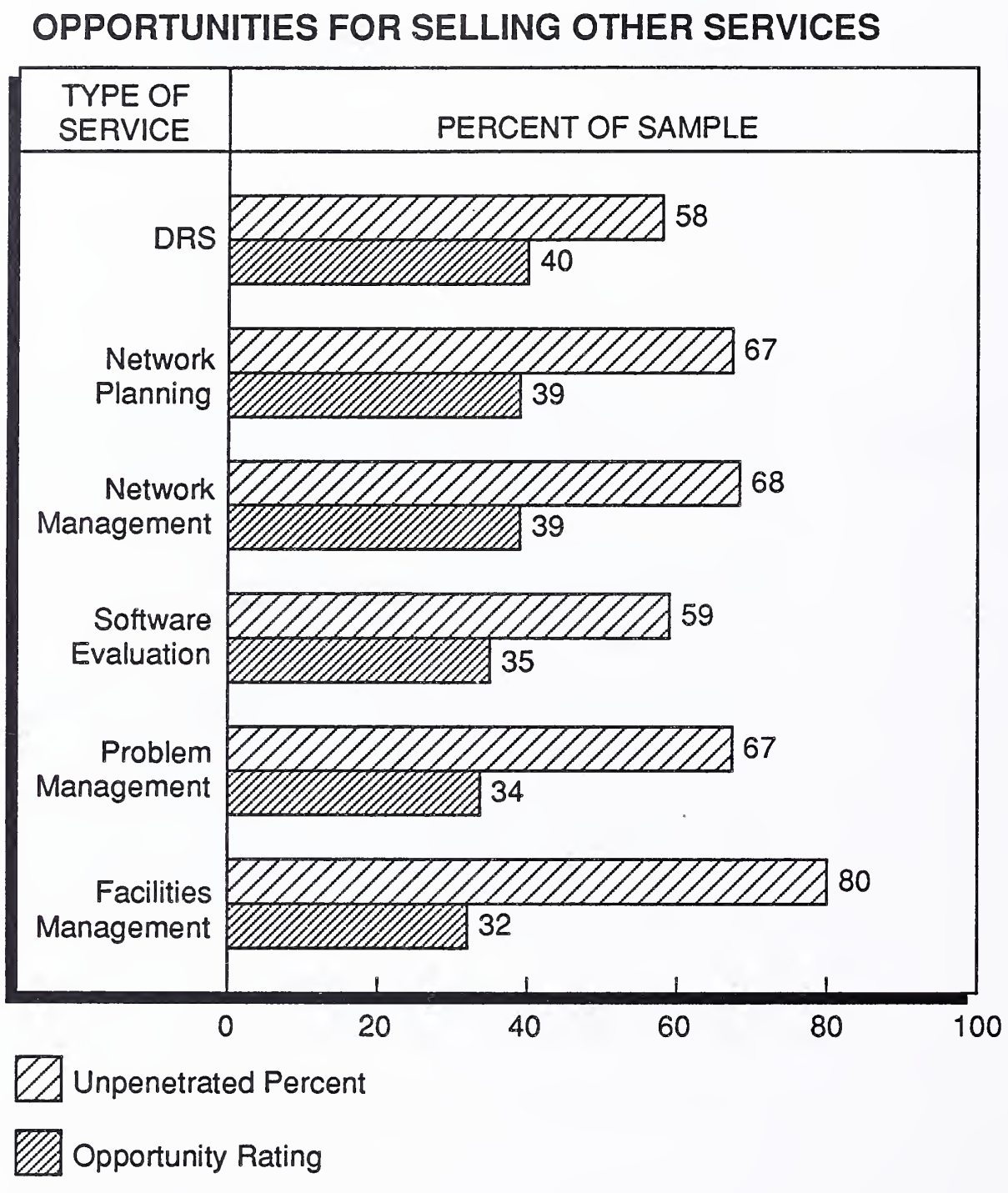
Two aspects were examined:

- Whether services were already supplied
- What level of interest (on a scale of 1-10, where 1 represents very little interest and 10 a great deal of interest) there would be in such services

Exhibit VI-1 illustrates a comparison of these two aspects for the top six most highly rated services mentioned in the questionnaire. The 1-10 interest rating scale has been transformed into a percentage, where 100 represents the 10 in the question.

- Disaster Recovery rated the most interest at 40%, ahead of Network Planning and Network Management.
- Almost 60% of the sample claimed not to be in receipt of a DRS.

EXHIBIT VI-1



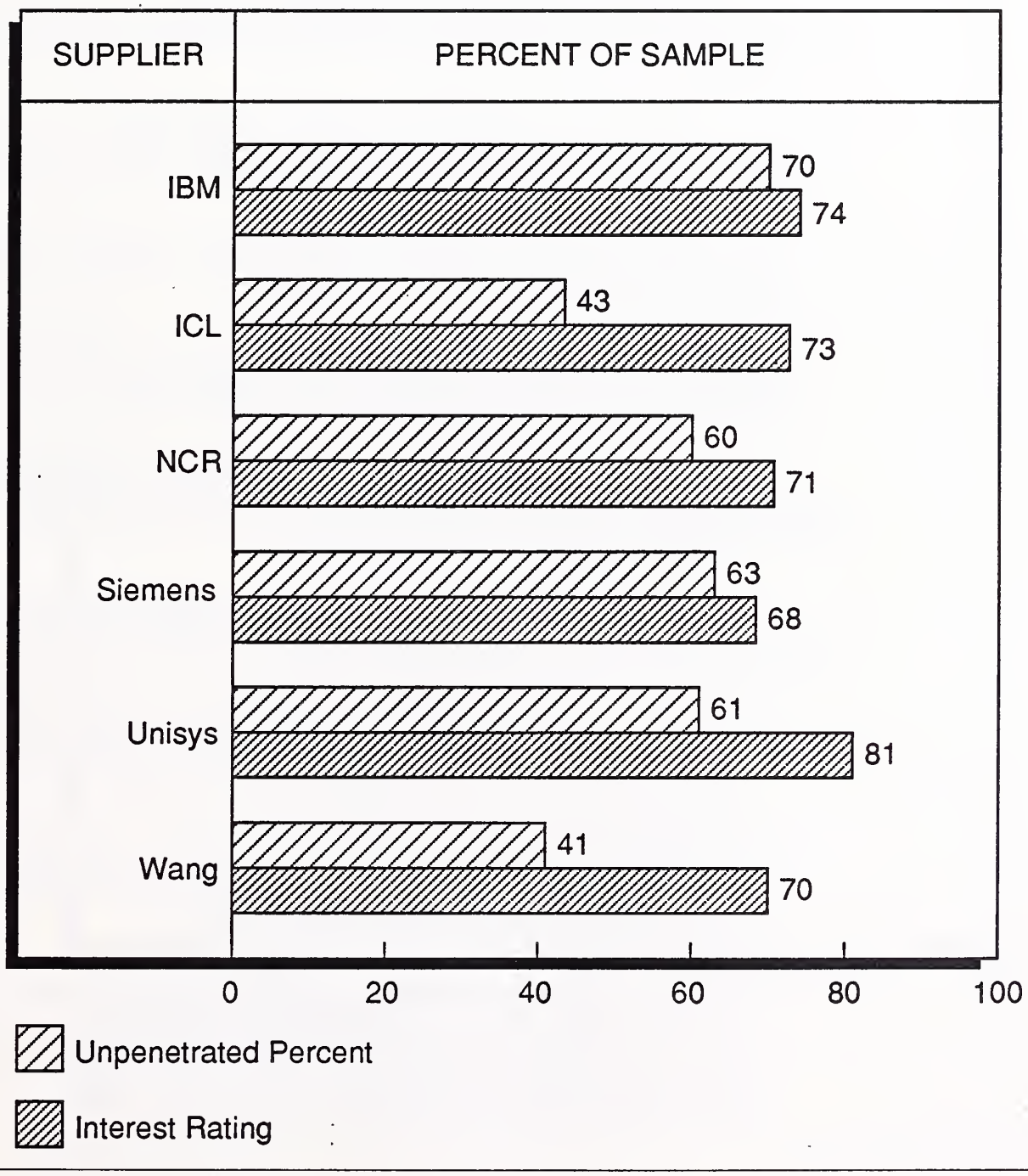
B

Analysis by Individual Vendor

Exhibit VI-2 contains the individual interest profiles for the different groups of users belonging to each hardware supplier's customer base. This exhibit is for the users of large systems (see definition below). Systems were analysed in the following size ranges:

EXHIBIT VI-2

COMPARISON OF INTEREST AND PENETRATION— SUPPLIERS OF LARGE SYSTEMS



- Large systems costing $500,000 or more
- Medium systems between $500,000 and $75,000
- Small systems $75,000 or less

Exhibit VI-2 allows the vendors of large systems to compare themselves with their peers:

- The Interest Ratings were collected from all users regardless of whether they already used a service or not.

- The percentage of unpenetrated users provides a measure of the short-term potential in each customer base.

Except for ICL and Wang, the percentage penetrations are always below 50%.

Interest Ratings are all close to or above 70%, indicating that Disaster Recovery is important to at least two-thirds of users.

Of particular surprise is the percentage of large IBM users—70%—with no formal DRS.

Exhibits VI-3 and VI-4 show the same analysis across the customer bases of users with medium and small systems respectively:

- For medium system users, the figures for the unpenetrated percentages of customers are considerably lower than for large system users, indicating:

  - Increased awareness in the users' minds, and possibly the lower absolute cost of providing Disaster Recovery at this level

- For users of small systems, the unpenetrated percentages start to creep up again, indicating less conviction on the part of users of the need for DRS at this level. Interest rating, however, remains high.

IBM small system users are more heavily involved in DRS than IBM's large users—40% vs. 30%. The size parameter in the question appears to have separated out the two marketing divisions.

With a few exceptions, it is clear that there is plenty of scope for promoting DRS to existing customer bases that are already taking equipment supplier maintenance contracts but would still be prepared to pay for a defined Disaster Recovery Service.

EXHIBIT VI-3

COMPARISON OF INTEREST AND PENETRATION— SUPPLIERS OF MEDIUM SYSTEMS

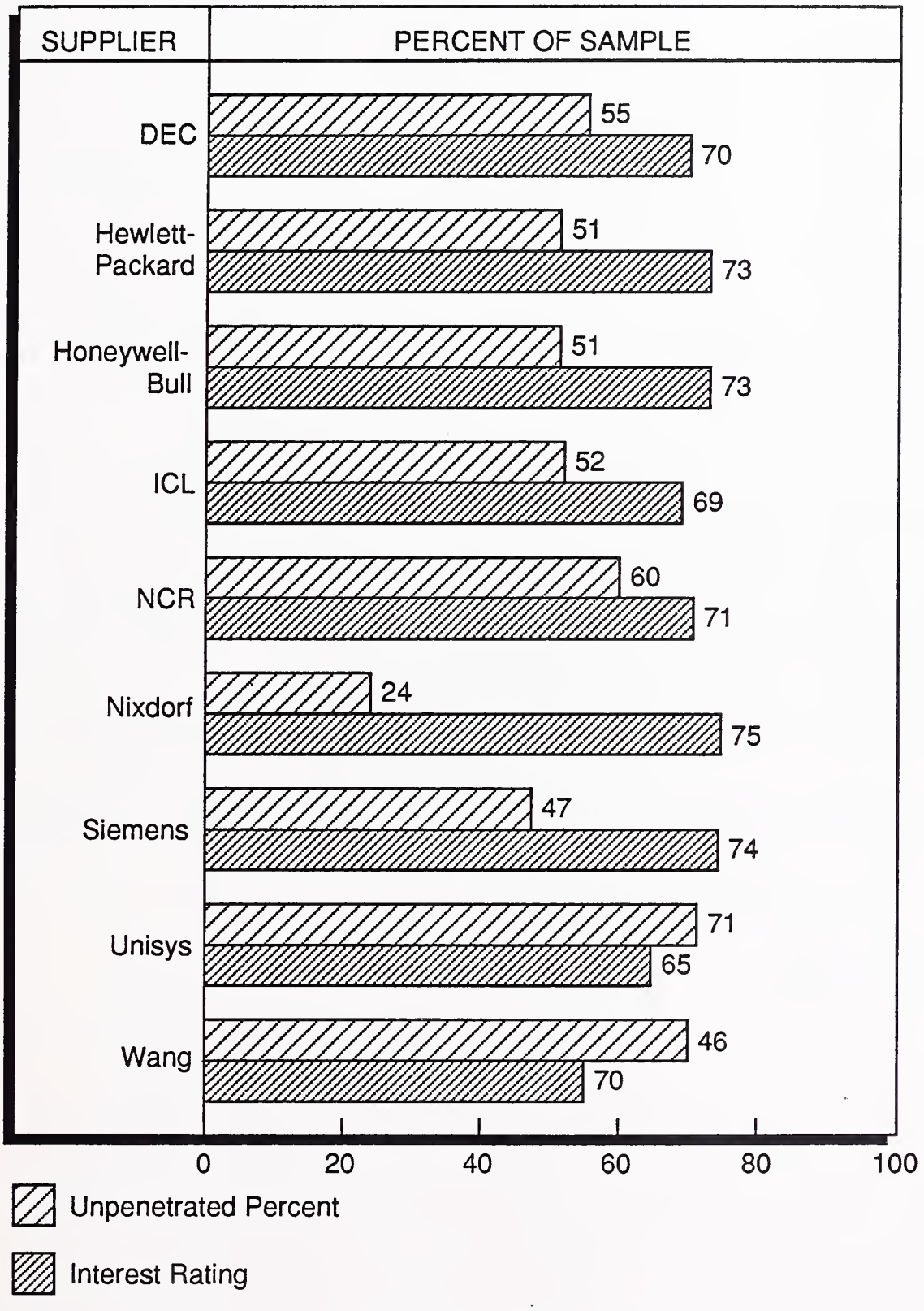
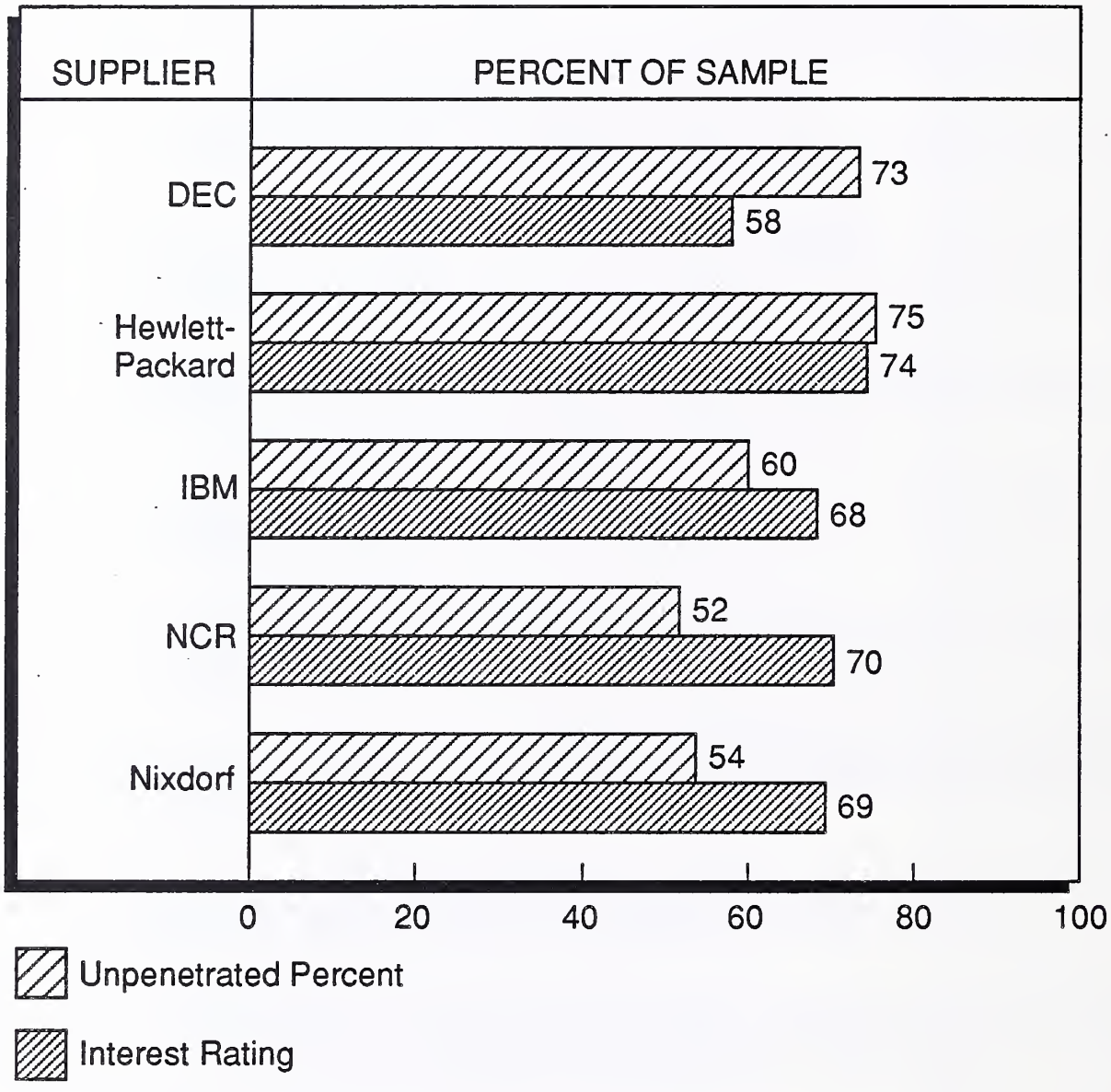
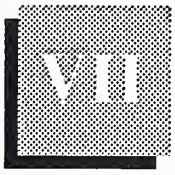


EXHIBIT VI-4

COMPARISON OF INTEREST AND PENETRATION— SUPPLIERS OF SMALL SYSTEMS



Vendor Contracts and Marketing Issues



Vendor Contracts and Marketing Issues

A

Vendor Strategies

The vendor sample interviewed accounted for just over $39 million in terms of 1987 DRS revenues. This is out of a European total of over $90 million; thus the sample accounts for more than 40% of the total.

Exhibit VII-1 summarises the revenues and staff numbers associated with the operations surveyed:

EXHIBIT VII-1

VENDOR SAMPLE—REVENUES AND STAFF NUMBERS

SOURCE	COUNTRY MARKET						
	†All Sectors		DRS Sector				
	Revenues 1987 ($ Millions)	Staff Numbers End 1987	Revenues 1987 ($ Millions)	Staff Numbers End 1987	Revenues 1988 ($ Millions) Anticipated	AAGR 1987-1988 (Percent)	Dedicated Sales Staff Numbers
Independents	687.7	7,662	37.2	207	49.1	32.0	41
Equipment Vendors	790.0	10,443	1.9	20	3.6	89.5	2
Total	1,477.7	18,105	39.1	227	52.7	34.8	43

† This includes all revenues for the vendors interviewed.

- Both the hardware vendors and, with one exception, the independent suppliers active in the sector are operating on a national level.

- Independents accounted for 95% of the market, but the hardware vendors are expanding their DRS operations almost three times as fast—with a 90% AAGR between 1987 and 1988, as compared with 32% for independents.

- DRS represents 5% of the independents' revenues but less than 0.25% of the manufacturers' (if the calculation is made on the basis of hardware vendors' services revenues, the percentage would look better but would still be half the percentage for the independents!).

- The independents are achieving twice the revenue yield of the vendors per head of staff ($180,000 per head versus $95,000), but this is easily explained by the fact that the vendors are running with sales staff at 10% of head count, whereas the independents have a dedicated sales force of around 20% of head count.

Exhibit VII-2 illustrates through the medium of the vendors' own comments the different strategic aims of the independents and the manufacturers. The independents got off the mark quicker and benefited more from the emergence of DRS as a measurable sector in its own right. To the hardware vendors, it is as yet just one more service that they feel obliged to offer in the age of the 'total solution' image.

B

The User Base

INPUT estimates that over 3,500 DRS contracts are in force in Western Europe at the present time, but because of the doubling up of facilities (between cold and 'heated' solutions) in many cases, the number of organisations covered is probably not more than 2,500. This figure, of course, excludes all those organisations that have opted for an in-house solution—e.g., those that pride themselves on having a viable plan in place in the form of a 'mutual aid' pact with a 'friendly neighbour' installation.

Exhibit VII-3 provides a breakdown of the number of 'solution units' available for disaster recovery from the sample, tabulated between (a) the three types of service and (b) whether recovery is to take place on vendor or user premises:

- A unit is here defined as a standby or unloaded processor (in the cases of Warm or Hot Restart) and as an empty computer room (in the case of Cold Restart on vendor premises).

EXHIBIT VII-2

VENDOR COMMENTS ON HOW DRS FITS THE STRATEGIC PRODUCT MIX

- It is an option in our comprehensive support package.
- It is a major specialty service in our portfolio.
- We are in the non-IBM sector of the computing services market.
- As a specialist subsidiary of our parent group, we have chosen a hardware-only orientation.
- It is part of our "total solution" approach.
- We are going to sell it as part of our customer services catalogue—first to the existing user base, then to new users alongside standard maintenance contracts.
- We are a DEC ACD and the leader in DEC DRS for our national market.
- DRS is our sole specialty.
- It is only part of the total security package/problem.
- Back-up is part of our overall service to large organisations, government, multinationals and national leaders.

- The concept cannot be easily applied to Cold Restart on user premises because the in-stock building units are modular and therefore variable in size and number.

EXHIBIT VII-3

VENDOR SAMPLE—ANALYSIS OF SERVICES—NUMBER OF UNITS BY SERVICE TYPE

SECTOR / DRS SOURCE	HOT RESTART		WARM RESTART		COLD RESTART	
	Vendor Site	User Site	Vendor Site	User Site	Vendor Site	User Site
Independents	7	8	16	25	6	N/A
Equipment Vendors	0	0	11	3	0	0
Total	7	8	27	28	6	N/A

Exhibit VII-4 gives the equivalent breakdown of the sample's subscriber base:

EXHIBIT VII-4

VENDOR SAMPLE—ANALYSIS OF SERVICES—NUMBER OF SUBSCRIBERS

SECTOR / DRS SOURCE	HOT RESTART		WARM RESTART		COLD RESTART	
	Vendor Site	User Site	Vendor Site	User Site	Vendor Site	User Site
Independents	7	8	272	280	140	680
Equipment Vendors	0	0	80	110	0	0
Total	7	8	352	390	140	680

- Hot Restart units are dedicated to a single subscriber.
- Warm Restart vendor sites have an overall loading of under 15 subscribers per unit, with a value of only 7 subscribers per unit in the case of the hardware vendors.
- Warm Restart user sites, which include Mobiles, show a lighter loading for the independents—just over 11 per unit against 37 for the equipment vendors.
- Cold Restart, the cheapest option, has the highest number of subscribers.

The trends in growth of the subscriber base are:

- Warm Restart currently has the highest growth rate—at least 35% per annum.
- Cold Restart is currently growing at over 20% per annum and remains able to benefit from growth in the other areas to which it can act as a second line of defence.
- There is a current resurgence of interest in the expensive Hot Restart option among the largest organisations.
- There is more interest in user-site-based than in vendor-site-based options.
- There is a migratory drift from 'right to left'—i.e., from Cold to Hot solutions—as users come in from the 'arctic wastes' of their less viable, traditional and cheaper options.

C

Contract and Service Parameters

Contracts were found to range in duration from one year up to five or seven years. One vendor runs them on an indefinite annually renewable basis.

Response times range from a few minutes to three hours after notification.

'Fix' times, which can vary in definition according to how many vendor staff are contracted to get involved in the operating of a centre, range from 'we can switch over in minutes' through 'any time after three hours' up to having a cold centre site ready for occupation within 14 days.

Occupation times for Warm Restart contracts start at 4 weeks and go up to 16. Most vendors think in terms of a primary guaranteed occupation period, included in the annual premium price, followed by an optional secondary period of a similar duration, during which:

- The user may have to pay on a usage basis.
- The user can be displaced on a priority basis by another user entering a primary period.

One vendor reported on a six-level priority system, descending from primary alert to standard processing service usage. The trend toward this type of arrangement makes the line between disaster and nondisaster 'fuzzy', and this is said by some continental vendors to be the force driving migration towards full Hot Restart.

Cold Restart normally allows for indefinite occupation on the user's site, with the option to purchase the units if desired.

Exhibit VII-5 illustrates the range of annual contract values encountered:

EXHIBIT VII-5

VENDOR SAMPLE—ANALYSIS OF SERVICES—RANGE OF ANNUAL CONTRACT VALUES ($ Thousands)

SECTOR / DRS SOURCE	HOT RESTART				WARM RESTART				COLD RESTART			
	Vendor Site		User Site		Vendor Site		User Site		Vendor Site		User Site	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Independents	100 Upwards		100 Upwards		6.0	250.0	8.0	48.0	10.0	20.0	6.0	15.0
Equipment Vendors	N.K.	N.K.	N.K.	N.K.	3.2	96.0	2.5	11.2	N.K.	N.K.	N.K.	N.K.

N.K. = Not Known

- Warm Restart covers the greatest variability in cost, because it has to embrace such a wide variety of equipment types, from mobile mini configurations to fixed-site IBM mainframes.
- The independents' Warm Restart services are two to four times as expensive as those of the equipment vendors.

Exhibit VII-6 gives the revenue breakdown by service and vendor types. Analysis of average contract values emphasises the anomalous pricing difference between the two classes of DRS vendor.

EXHIBIT VII-6

VENDOR SAMPLE—ANALYSIS OF SERVICES—
1987 REVENUES BY SECTOR
($ Millions)

SECTOR / DRS SOURCE	HOT RESTART		WARM RESTART		COLD RESTART		OTHER SERVICES	TOTALS ALL SECTORS
	Vendor Site	User Site	Vendor Site	User Site	Vendor Site	User Site		
Independents	3.6	3.4	17.6	4.8	0.6	7.0	0.2	37.2
Equipment Vendors	-	-	1.6	0.3	-	-	-	1.9
Total	3.6	3.4	19.2	5.1	0.6	7.0	0.2	39.1

D

'Quis Custodit Ipsos Custodes?'

The old Latin tag (translated as 'Who guards the guardians?') neatly expresses the problem perceived by many users when contemplating subscription to a shared DRS: 'What happens if two or more of us experience a simultaneous disaster? Can you cope?'

Exhibit VII-7 lists some of the vendor comments on how they have addressed this problem:

EXHIBIT VII-7

VENDOR COMMENTS ON HOW THEY PLAN FOR THE OVERLOAD SITUATION

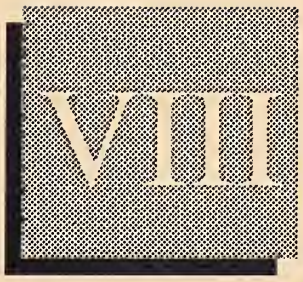
- Of course, we have our own contingency plan.
- We would handle an overload by using the strength of our group.
- We have 10 machines in the group and are planning a second DRS centre.
- Mobiles allow one to accept almost unlimited numbers of subscribers since the quantum of investment is smaller than for fixed sites.
- Our plan is confidential, but we use a customer radius concept.
- The two sites back each other up, hence the need for compatible systems. Resilience increases with the number of processors—more than linearly.
- It is a 1:300,000 chance that two disasters would occur together; but we can back up with our FM service machines.
- We actually insure ourselves.
- Each of our contracts for back-up has its own machine so there cannot be contention for any one machine resource.
- Physical protection is most important for true "hot" restart centres.

- The most common answer is to point to the overall strength of the group to which the supplier belongs.

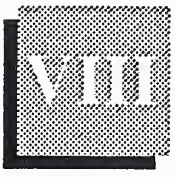
- Cold start suppliers have the advantage in being able to offset their risk on the insurance market. Since they operate on a longer lead time than the suppliers of 'heated' solutions, they can more easily translate their risk into money terms. For this reason alone, they remain an essential 'buffer' layer in the infrastructure of the sector.

- With the spread of distributed processing, system resilience against disaster increases with the number of processor units at work. This favours the growth of the Mobile subsector.

However, there is no experience recorded to date to indicate how increased networking within and between organisations affects the size of the eventual disaster that the increased resilience of the systems appears to forestall—a 'Chernobyl' effect in which whole industries could be temporarily put out of action by a propagated malfunction or disaster. No doubt, it will one day be the ingenuity of individual human beings that prevents such a 'melt-down' from taking place.



Opportunities for DRS



Opportunities for DRS

A Market Trends

INPUT concludes that the current trends in the information processing market favour the increasing growth of a separate and clearly identifiable market sector for DRS.

The trends are the outcome of the opposition of the driving and inhibiting forces at work, as noted by our vendor respondents in Exhibit VIII-1:

- Security consciousness is becoming much more prevalent.
- Advisors of all sorts, financial and technical, are keener to discharge their obligations in a professional manner.
- Directors now know of the strict legal obligations of their peers in the U.S. A. to ensure the safety of their corporations' data systems; these sorts of binding requirement could become law also in the EEC.

However, in many European organisations, the EDP function still remains a technical adjunct to the business. It is not perceived by all general managements as vital to the survival and success of their enterprises. Countering this traditional attitude is the continuing switch away from batch to on-line transaction processing systems. Even for such routine operations as order processing, once this starts to be done as an on-line procedure, companies start to realise how computer-dependent they have become. After 18 months or so, reversion to previous manual methods becomes unthinkable.

The requirement for DRS has been found by INPUT not to be a function of company size, but rather of an organisation's perceived vulnerability to computer shut-down and to the criticality of its day-to-day operations.

EXHIBIT VIII-1

DRS MARKET FORCES

DRIVERS

- Recommendations from Auditors, Consultants or Insurers.
- Dependence on Computers Is Being Recognised.
- Growth of On-Line Systems and Networks.
- Directors Are Becoming More Conscious of Legal Responsibilities.
- Security Awareness.
- Cost (and therefore Risk) of Running an EDP Function Is High.
- Natural Disasters, like 'Last October's Hurricane'.

INHIBITORS

- Lack of Senior Management Awareness.
- Cost, e.g., 'It's Hard to Quantify the Risk'.
- Head in the Sand—'It Could Never Happen to Us'.
- There Is No Such Line in the Budget.
- 'DRS has a High Sign-Off Value'.

These characteristics are not functions of size. On the other hand, large organisations are more likely to perceive the vulnerability of large concentrations of mainframe computing power.

There is a vertical industry orientation to current DRS usage, but it is not a particularly strong one:

- Financial Services companies are strong users of DRS because they naturally possess the characteristics outlined in the previous paragraph.
- Retail and Distribution companies are now turning away from their traditional mutual help schemes to a more formal approach.
- Manufacturing organisations present a large opportunity segment.

Most vendors are selling DRS as a cross-industry product/service.

B

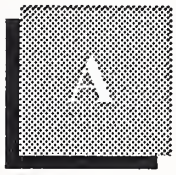
Country Analysis

The trends by country are:

- The higher penetration of DRS among EDP departments in the U.S.A. (where some 30 vendors are active in the Warm Resart sector alone) is starting to impact Europe, with the U.K. adopting North American thinking (in general) before other countries.
- The U.K. market is currently expanding at almost 40% per annum.
- The French market is influenced by the activities of the large computing services houses, whose attitude to DRS is geared to selling Professional Services together with large capability Processing Services, and selling these composite offerings to the largest public and private sector organisations. Warm Restart is in disfavour with the large services suppliers and has been given the nickname of 'valium back-up' (enabling management to sleep peacefully at night, but securing nothing).
- The West German approach has evolved a few large specialist DRS suppliers whose strategy combines elements of Warm and Cold Restart. Traditional mutual back-up pacts are still very much the order of the day among the country's medium-sized users.
- Denmark, Holland and Italy all have at least one large Warm Restart vendor.
- Mobile Restart is still relatively undeveloped in continental Europe.

The overall growth rate across all countries of Western Europe is currently 30% p.a. and is forecast to average 25% over the next five years, thus trebling the market size over that period.

Appendix: Vendor Questionnaire



Appendix: Vendor Questionnaire

Disaster Recovery Services in Western Europe, 1988-1993

Study Code ___ ___ ___ ___

Type of Interview ___ Vendor ___ Telephone
___ User ___ On-Site
___ Other ___ Mail

Date ___/___/___

Respondent _____ Function/Title _____

Company Name _____ Division _____

Address _____ Telephone (____) _____

_____

_____

Revenues

All Sectors (198__) £/LIT/DM/FF _____ ($ _____)

Revenues in Europe U.K. (198__) for _____ ($ _____)

Staff Numbers: Worldwide _____ Division _____ DR Service _____

QU: 1 Do you offer a Disaster Recovery Service? How important is it?

____ Not at All ____ Yes, a Little ____ Major Revenue Earner

QU: 2 Do you intend to continue to offer it?

____ Not at All ____ Yes, a Little ____ Major Revenue Earner

QU: 3 How does this fit in with your principal strategic axes?

_____

_____

QU: 4 What specific services do you offer? Under what service names?

TYPE
(Hot, Warm, Cold,
Upstart, Other)

i. _____

_____

ii. _____

_____

iii. _____

_____

QU: 5 Do you see this as a growing market segment? ____ Yes ____ No

Comments: _____

_____

_____

QU: 6 How long have you been offering these services? Since 19_____

QU: 7 From how many sites are the services offered? _____

QU: 8 Which manufacturers' equipment are supported? ____ Own Only

____ IBM ____ DEC ____ICL ____ Others _____

___ _____

QU: 9 Which ancillary services are also offered?

	Bundled	Unbundled
System Programming		
_____	_____	_____
Professional Services		
_____	_____	_____
Education/Training		
_____	_____	_____
Manual Back-Up Personnel		
_____	_____	_____
Other		
_____	_____	_____
_____	_____	_____

QU: 10 What is the range of the annual value of a contract for your services?

Ranging from _____ p.a. to _____ p.a.

Mean Value _____ (N.B. Use Local Currency)

QU: 11 What is the range in the duration of a contract?

Ranging from _____ yrs. to _____ yrs.

Mean Value _____ yrs./months

QU: 12 What is the length of time a recovery site is given over to a customer?

Ranging from _____ wks. to _____ wks.

Mean Value _____ wks./months

QU: 13a How does this limit the number of customers/subscribers that your service can support?

Limited to: _____

_____

QU: 13b How do you ensure/insure against having too much demand at any one time for the recovery sites to be able to cope?

_____

_____

Marketing

QU: 14 What are the 'drivers' and 'inhibitors' of this market sector?

Drivers _____

_____

Inhibitors _____

_____

QU: 15 What is your estimate of the size and growth of the sector?

In your domestic market _____ p.a. _____% AAGR

Rest of Europe _____ p.a. _____% AAGR

(N.B. Use Local Currency)

QU: 16 What are your major competitors?

	Domestic Market	Rest of Europe
1.	_____	_____
2.	_____	_____
3.	_____	_____

QU: 17 How do you market your Disaster Recovery Services? (Please detail and comment.)

Direct Sales Force

_____ % of Sales Force of _____

Other _____

_____

_____

QU: 18a What size of company are you serving?

	Percent of DR Customers
____ Large i.e. with > 5,000 Staff	_____%
____ Medium i.e. with 1,000 to 4,999 staff	_____%
____ Small i.e. with < 1,000 Staff	_____%

QU: 18b And where do you think the potential is?

_____

QU: 19 Is there any industry bias in the market potential?

_____

_____

QU: 20 Are there any other aspects of importance, not so far covered?

_____

_____

Thank you for your time.