INPUT

MARKET FORECAST

Customer Services Market Analysis and Forecast Europe

1994-1999

Customer Services Programme - Europe

DECEMBER 1994

Customer Services Market Analysis and Forecast– Europe,1994-1999

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Abstract

In the early 1990s, the IT customer services industry has been undergoing enormous change, as product-led proprietary services have given way to *open services.* This, combined with other key trends such as the decline of the equipment maintenance market and the downsizing phenomenon, have caused customer services organisations to completely reengineer their business.

In order to survive in the face of such challenges, customer services vendors have moved into the non-remedial, value-added services markets whilst pursuing ways of maximising equipment maintenance revenue streams. A few market leaders have successfully made the transition to becoming open services vendors, and are beginning to reap the benefits. However, many more services organisations are still in the throes of change.

This report, INPUT's 1994 issue of its annual *Customer Services Market Analysis and Forecast,* aims to help services organisations operating in this time of significant change. The report contains quantitative data relating to the growth of the customer services market in each of six main sectors. It analyses the market in each of 16 Western European countries, plus Eastern Europe (taken as one group of countries) and provides:

- Five-year forecasts for the growth of user expenditure on customer services for the period 1994 to 1999
- Estimates of the customer services revenues earned in 1993 by the leading 20 vendors in Europe (and top 10 per country)
- Estimates of customer services expenditure by computer platform, plus growth forecasts

The European forecasts provided in this study are presented in U.S. dollars and ECUs. The market forecasts by country are provided in local European currencies and U.S. dollars.

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I

Introduction

A Objectives and Scope

This study is produced by INPUT as part of its 1994 Customer Services Programme in Europe.

The objectives of this report are to provide an analysis of user expenditures for customer services in Europe, an estimate of the market size in 1993 and a five-year growth forecast for the period 1994 to 1999.

Further objectives are to:

- Estimate the size by major segment of the individual European country markets for customer services and provide a five-year growth forecast for each, for the period 1994 to 1999
- Provide forecasts for six service sectors of the customer services market in Europe
- Estimate the customer services revenues of the leading customer services vendors, segmented by service sector and country market.

Country markets included in Western Europe are:

- Austria
- Finland
- Italy
- Spain
- Belgium
- Germany
- The Netherlands
- Sweden
- Denmark
- Greece

- Norway
- France
- Portugal
- Switzerland
- Ireland
- United Kingdom

Countries aggregated into the Central and Eastern European market are:

Albania
Bulgaria
Croatia
Czech Republic
Esthonia
Hungary
Latvia
Lithuania
Poland
Romania
Russian Federation
Slovak Republic
Slovenia
Ukraine
Serbia and the other former Yugoslavian republics
Other CIS countries within Europe.

B
Methodology

INPUT approached customer services vendors across Europe for details and confirmation of each company's customer services revenues. A proportion of vendors cooperated by providing data to INPUT.

Research to provide additional data contained within the study was conducted using the following sources of information:

- Vendors' annual reports
- Company press releases
- Specialised data published by the computer market trade press.

C
Economic Statistics

Details of the currency conversion rates and inflation assumptions used in the compilation of the forecasts in this report are contained in Appendix D.

D
Report Structure

The remaining chapters of this report are structured as follows:

- Chapter II is an executive overview which provides a summary of the key findings of the study, including major market trends
- Chapter III explains INPUT's view of the customer services market, and provides detailed definitions of service sectors and vendor delivery modes
- Chapter IV provides analyses and forecasts for the overall customer services market in Europe for the period 1994 to 1999
- Chapter V provides an analysis of the customer services market in 16 individual European country markets, plus Eastern Europe (expressed in local currencies) for the period 1994 to 1999
- Appendix A contains estimates of the customer services revenues of the 20 leading customer services vendors in Europe
- Appendix B provides a reconciliation between INPUT's current market forecast and the previous market forecast made in 1993
- Appendix C contains the US dollar versions of the 1993 market forecasts by country for 1994 to 1999
- Appendix D provides the economic assumptions used in sizing and forecasting the customer services sectors.

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II

Executive Overview

A
Vendors Become Services Integrators

Having successfully made the transition from cost centres to independent profit centres in the 1980s, customer services organisations have faced even steeper challenges in the early part of the 1990s, including:

- The decline of the equipment maintenance market
- The transition from datacentre to client/server computing
- The decline of product-led proprietary services and the growth of *open services*
- The severe economic recession.

In order to survive in the face of such challenges, customer services vendors have found it necessary to diversify their activities, developing wide portfolios of services products. Hence, vendors are currently active in the following ways:

- Finding methods of maximising equipment maintenance revenue streams for the longest possible period
- Moving into non-remedial, value-added services.

Today, many customer services vendors have effectively become *services integrators*, offering a full range of maintenance, support and value-added services for multivendor environments. The leading services integrators are the equipment vendors, along with a few of the larger independent services organisations. Most of the leading equipment vendors have now established themselves as players in the multivendor services market, and are offering some form of integrated services package (often referred to as *lifecycle* services).

Only the larger independent service companies such as Sorbus, Granada and Getronics are fully equipped to compete on level terms in this new

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II

Executive Overview

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Only the larger independent service companies such as Sorbus, Granada and Getronics are fully equipped to compete on level terms in this new environment, where the ability to offer value-added solutions, often on an enterprise-wide basis, is fast becoming the key customer requirement.

The smaller independent maintenance organisations (IMOs) are finding it increasingly difficult to win business in an intensely competitive and fast-declining maintenance market. Most IMOs are now focused on survival by means of establishing niche services, or by pursuing partnership agreements with the equipment manufacturers and/or the outsourcing vendors.

B
New Support Markets Emerge as Maintenance Market Declines

In the last year, the customer services market has been characterised by a number of key trends:

- Sharp decline in the equipment maintenance market
- More and more vendors turning to multivendor services
- Network and desktop services growing strongly
- The market for software product support opening up.

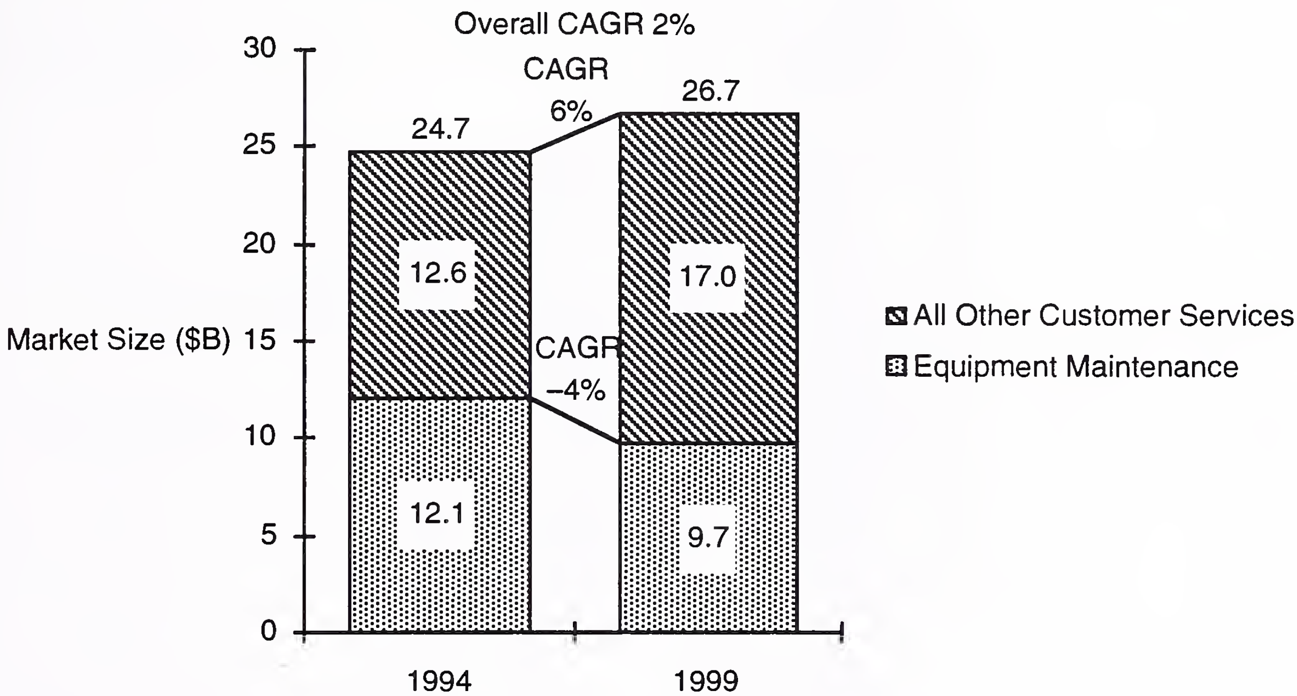
1. Vendors Innovate As Equipment Maintenance Market Falls Sharply

Exhibit II-1 shows the extent of the decline of the equipment maintenance market in Europe, and the effect this is having on the overall customer services market. Healthy growth in the non-remedial sectors is effectively being masked by a steep decline in the maintenance sector.

The decline of the equipment maintenance market has been talked about for some considerable time, but the true extent of decline has only recently become apparent. In 1993, the market for equipment maintenance across all platforms fell by 8%, and is forecast to fall by 4% (CAGR) by 1999.

Exhibit II-1

European Customer Services Growth– Maintenance vs Non-Maintenance Services, 1994-1999 ($Billions)



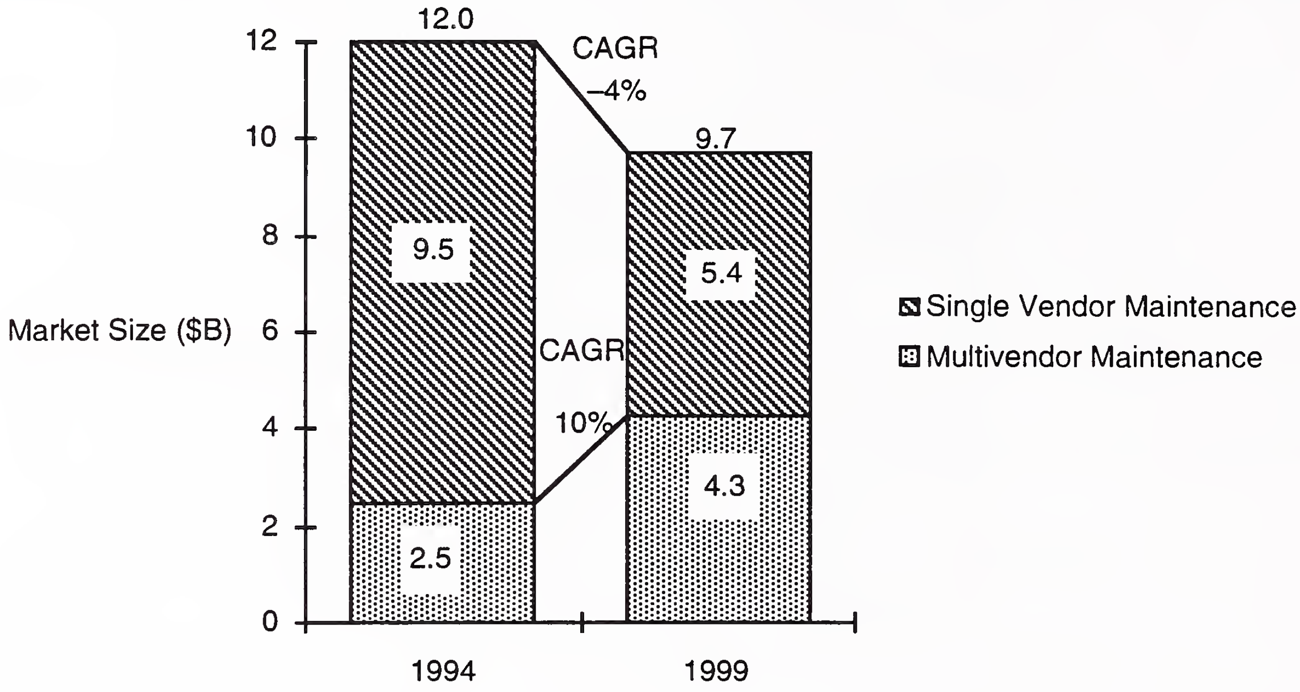
Source: INPUT

Vendors looking to counteract the effects of declining maintenance revenues are increasingly turning to *multivendor maintenance* which, as shown in Exhibit II-2, is continuing to grow against the overall trend. Today, most of the leading equipment manufacturers have multivendor maintenance capability, a fact which is putting intense competitive pressure on the IMOs.

Another key driver in the equipment maintenance sector in the last year has been the escalating warranty battle between vendors; the trend towards longer and more extensive warranty terms continues. Last year also saw the emergence of *self-maintenance* as a legitimate service offering from a number of maintenance organisations.

Exhibit II-2

Equipment Maintenance Market, Europe 1994-1999 ($Billions)



Source: INPUT

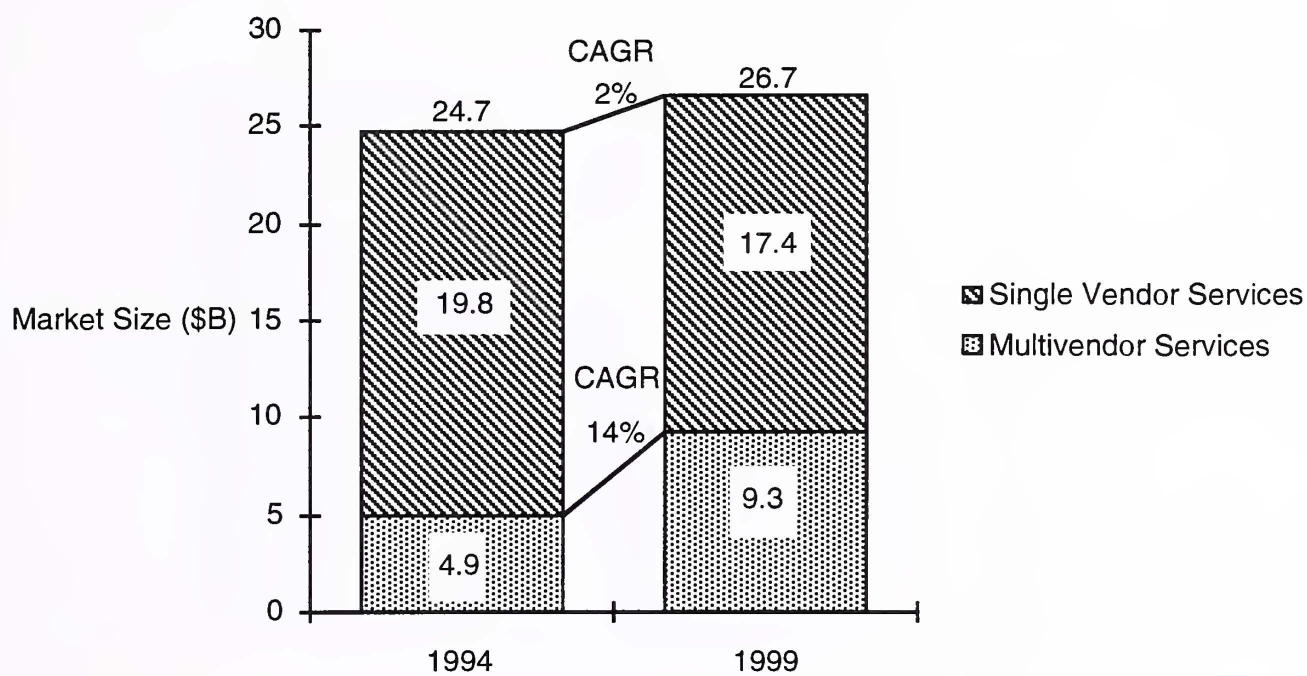
2. Multivendor Services Market Attracts Big Players

Maintenance is just one element of the fast-growing *multivendor services* market, which has attracted increasing numbers of equipment vendors in the last couple of years. HP, IBM, ICL and others have followed the lead of vendors such as Digital and Olivetti in reorganising for multivendor services.

As shown in Exhibit II-3, multivendor services currently account for 20% of the customer services market, but this is forecast to grow to 35% of the market by 1999.

Exhibit II-3

Multivendor Services Market, Europe 1994-1999 ($Billions)



Source: INPUT

3. Network and Desktop Services Set for Growth

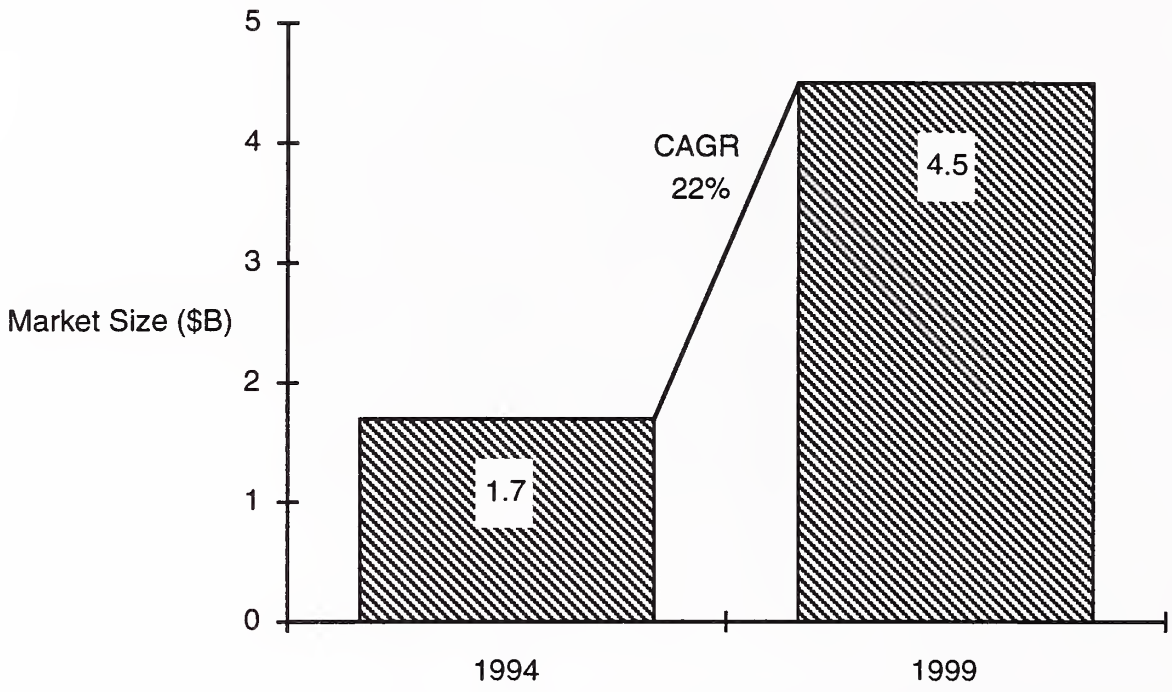
The market for services related to local area networks (LANs) and the desktop environment is poised for substantial growth, as increasing numbers of organisations begin to roll out mission-critical client/server systems.

The best opportunities are for non-remedial support services such as help desk services, software support, network management and remote monitoring. The market for non-remedial network and desktop support services is forecast to grow by 22% CAGR over the next 5 years (see Exhibit II-4).

The market for fully outsourced desktop services, worth $400 million in 1994, also promises substantial opportunities for those vendors capable of offering a fully managed services capability. This market is forecast to reach $1300m (27% CAGR) by 1999.

Exhibit II-4

Desktop Network Support Market, Europe 1994-1999 ($Billions)



Source: INPUT

4. Software Support Market Opens Up

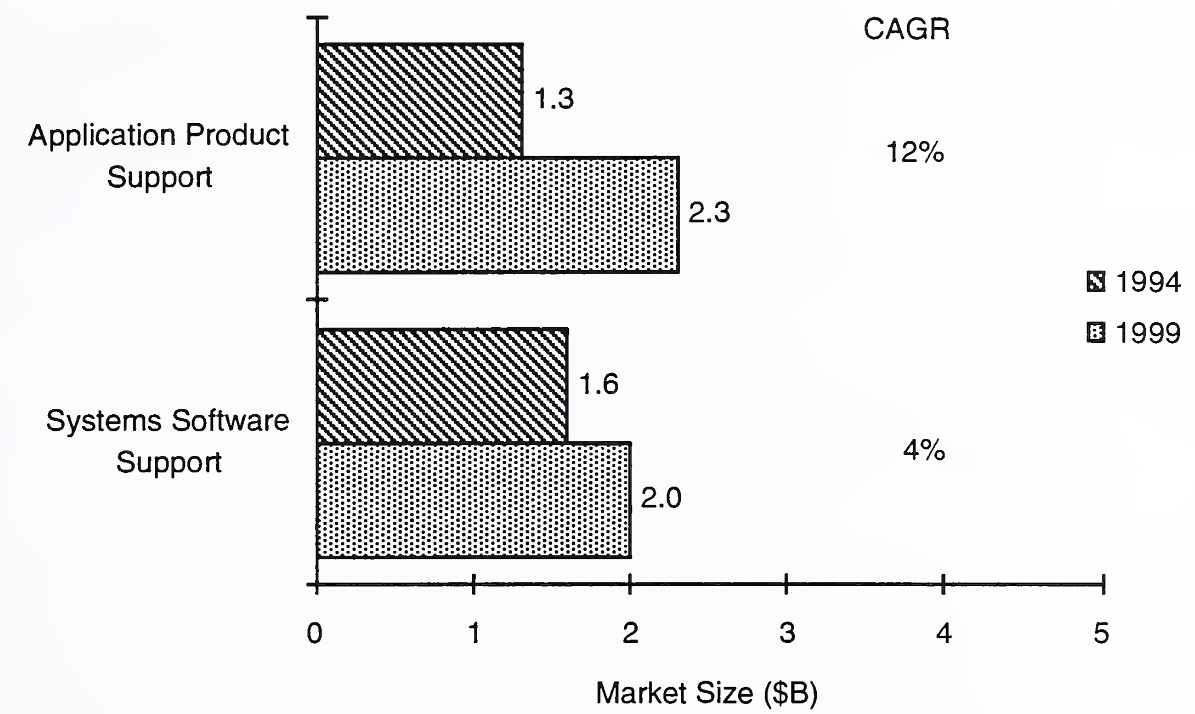
In the last year, the market for software product support has opened up, with support vendors beginning to compete on services, price and performance. Support services for both datacentre and desktop software products are undergoing radical changes in the hands of leading vendors such as Microsoft, and for the first time customers now have real choice.

The drive towards open market conditions will generate significant market growth, as shown in Exhibit II-5. Application product support will grow fastest, (12% by 1999), with systems software support growing at 4% over the same period.

The keys to success for software product support vendors will be their ability to offer tailored service levels priced according to service value, whilst containing the cost of delivery. The next five years will see suppliers competing at every level to promote innovative software product support services.

Exhibit II-5

Software Product Support Market, Europe 1994-1999 ($Billions)



Source: INPUT

C
Business Continuity, Professional Service Sectors Show Best Growth

Exhibit II-6 shows European customer services market growth by sector. As explained in section B, the most significant sector trend is the decline of the maintenance market. However, two non-remedial sectors in particular are forecast to show the best growth by far:

- The professional services sector is set to grow 12% CAGR over five years, reflecting the growing demand for support consultancy in increasingly complex computing environments. Professional services in this context are limited to the support of the systems platform or network and its operating environment

- The market for business continuity services is forecast to re-emerge strongly following slow growth during the recent recessionary years. This sector is forecast to grow by 16% CAGR over the next five years.

Exhibit II-6

European Customer Services Market Growth by Sector, 1994-1999

Service Sector	($Billions, Rounded)		
	1994	1999	CAGR 1994-1999 (%)
Equipment Service	12.1	9.7	-4
Environmental Services	7.1	9.3	6
Systems Software Support	1.6	2.0	4
Education & Training	2.4	3.0	4
Professional Services	1.0	1.8	12
Business Continuity Services	0.4	0.9	16
Total (Rounded)	24.7	26.7	2

Source: INPUT

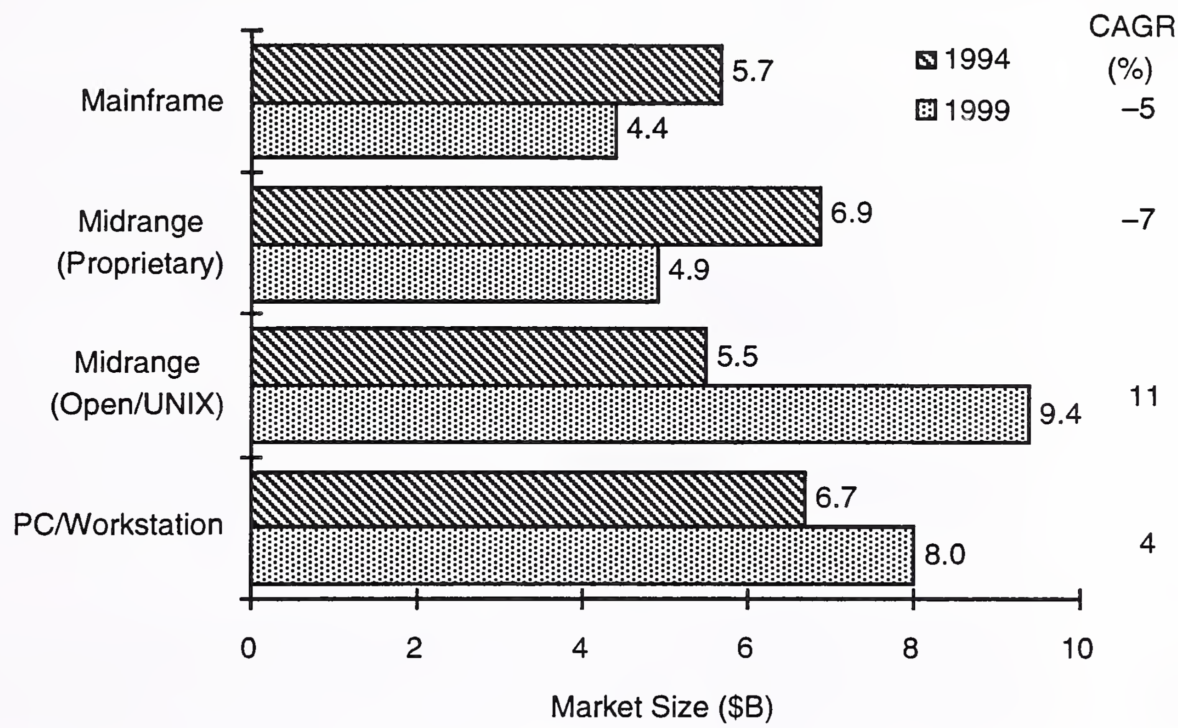
D
Open/UNIX Platform Set to Dominate Customer Services Market

Exhibit II-7 shows customer services market growth by computer platform for the period 1994 to 1999. Currently, the distribution of service delivery is fairly evenly spread across all four platforms. However, both the proprietary midrange and mainframe platforms will show a sharp decline over the next five years. By 1999, customer services on mainframe and proprietary midrange platforms will fall from 50% to about a third of the total market.

The biggest growth area is in the open/UNIX server market, which will rise from just over 20% to 35% of the market by 1999. The open server and PC/workstation platforms combined (i.e. effectively the client/server market) will be dominant, with collectively 65% of the customer services market by 1999.

Exhibit II-7

European Customer Services–
Market Growth by Platform, 1994-1999 ($ Billions)



Source: INPUT

E
IMOs Lose Market Share, Independent Software & Services Firms Advance

In 1994 IT industry vendors (i.e. customer services and independent software and services vendors) account for 77% of user expenditure for customer services in Europe. The remainder of user expenditure is attributable to non-IT industry vendors.

Exhibit II-9 provides an analysis of the 1994 market by vendor type, with the three categories of customer services vendor (equipment vendors, independent maintenance organisations and dealers/distributors) shown separately. In comparing 1994 shares to those of the previous year, it is significant to note that:

- Equipment vendors' market share is only slightly down, at 57.2% from 57.5% in 1993
- The dealer/distributor channel has retained the same market share (3%)

- The IMOs' share has fallen from 8.7% to 7.3%
- The independent software and services vendors have improved their market share from 8.9% in 1993 to 9.4% in 1994
- Non-IT vendors have increased their share slightly from 22% in 1993 to 23% in 1994.

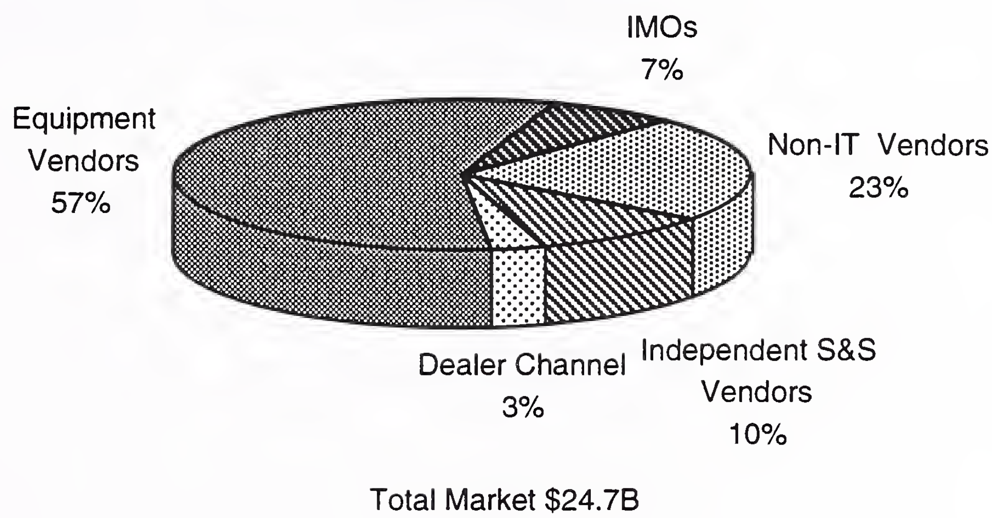
The net effect is that customer services vendor groups (collectively) are losing market share to the independent software and services vendors as non-maintenance activities become more important. However, equipment suppliers in particular are finding success in alternative service sectors such as network services, environmental services, systems integration and systems operations.

The IMOs are suffering the most, given their heavy dependence on the maintenance market. However, the select group of large multi-national independent maintainers are now moving more aggressively into the general services business, and can be expected to hold their market shares over the next five years.

Though not reflected in the 1994 market shares, the large dealers and distributors are also expected to improve their market standing as they push more strongly into the general service business.

Exhibit II-8

European Customer Services by Vendor Type, 1994



Source: INPUT

F
Leading Customer Services Vendors At A Glance

Exhibit II-9 lists the top 10 vendors ranked by 1993 customer services revenue. (See Chapter 4 for a full top 20 list, with revenues broken down by service sector). The list is dominated by the equipment vendors, though there is one independent service company, Getronics, at number 10.

Exhibit II-9

European Customer Services– Top 10 Vendors 1993

Vendor	1993 Customer Services Revenues ($ Millions)	1993 Market Share (%)
IBM	3,160	12.8%
Digital	1,700	6.9%
Siemens-Nixdorf	1,490	6.1%
Bull	900	3.7%
Hewlett-Packard	845	3.4%
Olivetti	830	3.4%
ICL	820	3.3%
Unisys	755	3.1%
AT&T	685	2.8%
Getronics	300	1.2%

Source: INPUT

The leading 10 companies between them accounted for 47% of 1993 user expenditure for customer services in Europe.

Maintenance revenues have declined for most vendors, though most are still heavily dependent on this revenue stream. Siemens-Nixdorf derives the highest percentage of its customer services revenues from maintenance (86%) with IBM the second highest (78%). Digital, one of the early adopters of non-maintenance services a number of years ago, derives only 59% of its services revenues from equipment maintenance.

Generally, much progress has been made in developing non-remedial revenue streams, with most vendors extending their portfolios to encompass much broader support and value-added services in 1993/4.

Of the equipment vendors, Hewlett-Packard and AT&T (NCR) have improved their market share by the biggest margin (up 0.7% over 1992 in both cases). Siemens-Nixdorf (0.6%), Olivetti (0.3%), IBM (0.3%) and Unisys (0.2%) have also improved their market shares.

The biggest improvement by an independent organisation was recorded by Getronics, who saw their market share rise from 0.1% in 1992 to 1.2% in 1993.

G
Country Market Growth 1994 to 1999

Exhibit II-10 provides a forecast for the growth of user expenditure for customer services in the four largest country markets in Western Europe. Despite a generally brighter economic outlook in 1994, most countries are forecast to experience low customer services growth for the period 1994 to 1999, the European average being just 2% CAGR. However, this reflects the significant dampening effect on the market of the decline in the equipment maintenance sector.

The combined share of these four largest country markets accounts for 68% of user expenditure for customer services in Europe. The percentage accounted for by each major country market is as follows:

- France 18%
- Germany 21%
- United Kingdom 19%
- Italy 10%

IBM is the leading equipment vendor, in terms of customer services revenues, in two of the four largest country markets in Western Europe. The exceptions to IBM's market leadership are provided by:

- The German market where Siemens-Nixdorf relegates IBM to second place
- The United Kingdom, where ICL and Digital were just ahead of IBM in 1993.

In France and Italy, the local national equipment manufacturers, Bull and Olivetti respectively, are in second place behind IBM.

Exhibit II-10

Customer Services Country Market Growth, 1994-1999

	($ Billions)		
Country Market	**1994**	**1999**	**CAGR 1994-1999 (%)**
France	4.42	4.66	1
Germany	5.28	5.34	0
United Kingdom	4.59	4.88	1
Italy	2.46	2.64	1
Rest of Europe	7.95	9.16	3
Total (Rounded)	24.7	26.7	2

Source: INPUT

III

The Customer Services Market Defined

A
INPUT's View of The Customer Services Market

INPUT's view of the customer services market is illustrated in schematic form in Exhibit III-1. This exhibit illustrates the overall structure of the hardware products or equipment market for systems, and the relationship between customer services and the other segments of the equipment market.

Included within INPUT's definition of customer services are six service sectors:

- Equipment maintenance
- Environmental services
- Systems software support
- Education and training
- Professional services
- Business continuity services.

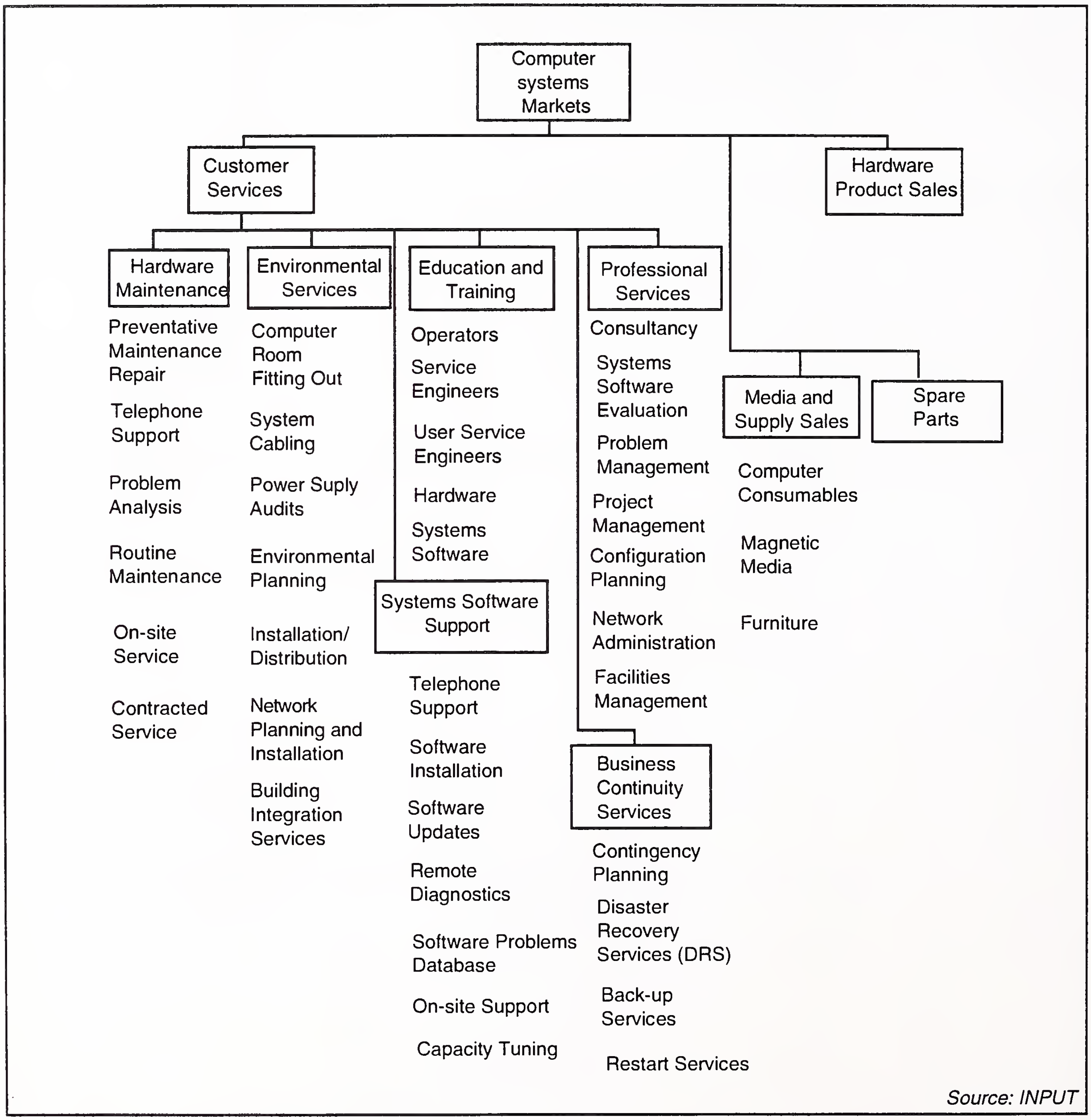
Excluded from INPUT's definition of the customer services market, as essentially product markets, are:

- Sales of spare parts
- Media and supplies sales
- Hardware product sales themselves.

Exhibit III-1 indicates the principal activities undertaken within each of the six service sectors. In each service sector, INPUT's definition of user expenditure includes only those services provided to users by an external organization on a chargeable basis. Services provided by subsidiaries or internal resources are considered unavailable for open tender. They are therefore excluded from the open market but included in the captive market potential.

Exhibit III-1

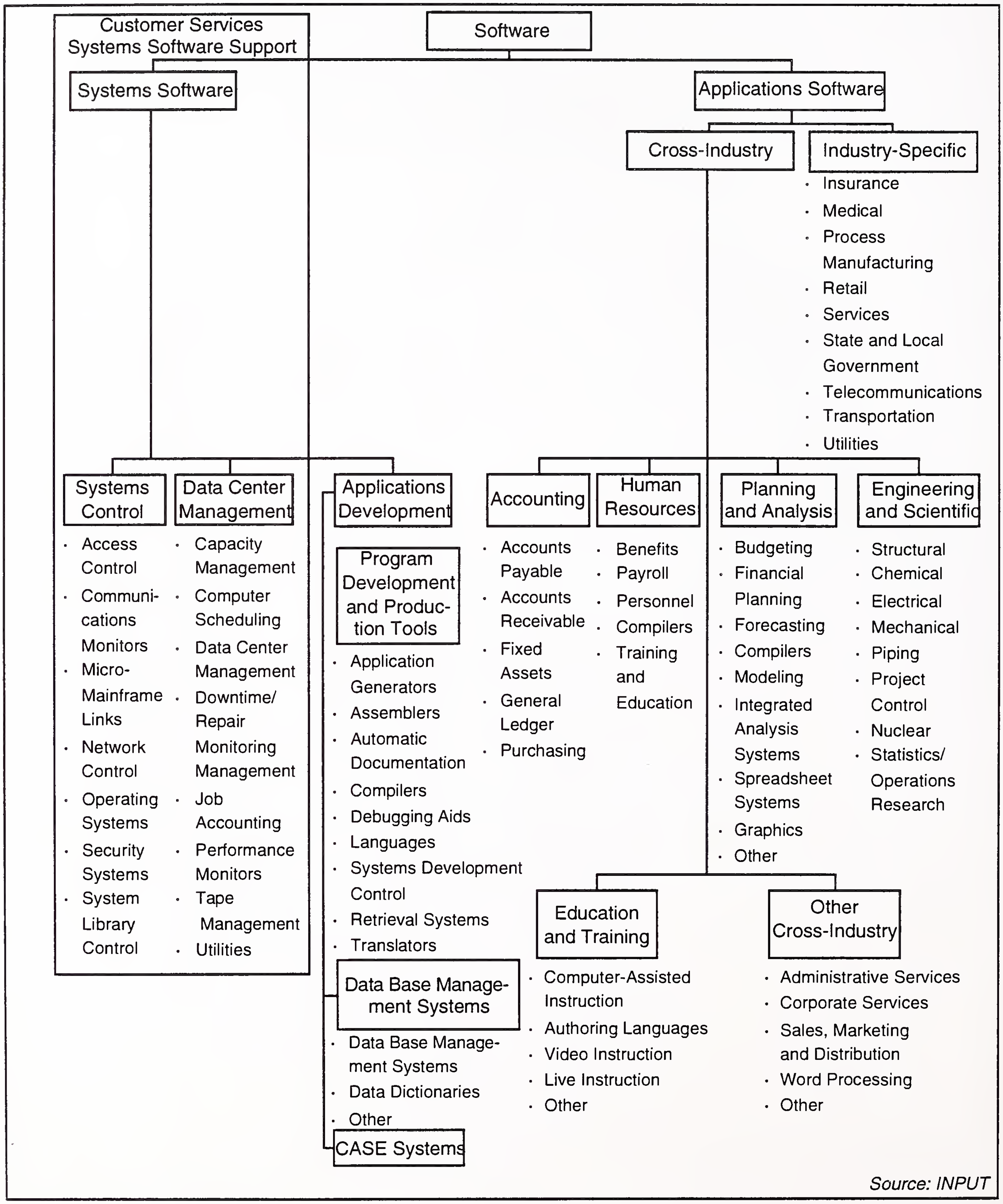
Customer Services Market Structure



Software support activities that are included in the customer services market are those activities related to the support of systems software. Exhibit III-2 illustrates INPUT's definition of the software products market. Aspects of software support included in the customer services market are restricted to those areas highlighted in the exhibit by placing them inside a rectangular box. They relate to system control and datacentre management software products.

Exhibit III-2

Software Products Market Structure



B
Customer Services Sectors

Customer services sectors are defined by INPUT as follows:

- **Equipment maintenance**: the repair or routine preventive maintenance of computer systems hardware or hardware components. Included are associated support activities such as telephone support, problem analysis and remote diagnostics. Contracts may be for one or more years; alternatively repairs may be effected on an ad hoc basis.

- **Environmental services** are defined as all those planning and implementation services which affect the environments in which computer platforms are expected to run. For these purposes, "environment" can mean any of the following:

  - The computer room fixtures and fittings
  - Cabling between computers and other devices in a system or network
  - Physical environment, such as: electrical power, air conditioning, water cooling, smoke or fire detection equipment
  - Network attachments
  - Buildings in which computers or networking devices or terminals must reside.

Environmental services normally involve the installation, upgrade, repair or de-installation of some piece of equipment, but may be restricted to planning only.

- **Systems software service/support**: software maintenance activities that relate to systems software (not applications software). This includes associated support activities such as telephone support, problem analysis and software diagnostics.

- **Education and training**: all education and training expenditure for IT industry applications is included within the definition of customer services.

- **Professional services**: within the definition of customer services, this sector of the market refers only to those elements of professional services that are concerned with the support of the systems platform or network and its operating environment, including areas such as:

- Consultancy
- Network Administration
- System Software Evaluation
- Problems Management
- Project Management
- Configuration or Capacity Planning.

To distinguish them from environmental services, these professional services are normally restricted to planning, design or management services, without any installation of platform or ancillary equipment. It is important to acknowledge that these services are only part of the more widely defined professional services marketplace.

- **Business continuity services** include a number of service elements related to keeping a business running in the event of a major incident which temporarily puts its IT platform or network completely out of action. They include:
  - Planning for such a contingency
  - Disaster Recovery Services
  - Back-up services for magnetic or optical media
  - Restart services, covering all activities which contribute to reinstating on a permanent basis the platform or network which suffered the major incident.

  These services can be sold together in any combination or as free-standing services.

C
Customer Services Vendors

INPUT's definitions of the three primary categories of customer services vendor are as follows:

- **Equipment vendors** are defined as companies that manufacture computer hardware/equipment and may service equipment manufactured by themselves or other equipment manufacturers

- **Independent maintenance organisations (IMOs)** are defined as companies that service computer equipment and are independent of the manufacturer or agent who sold the equipment

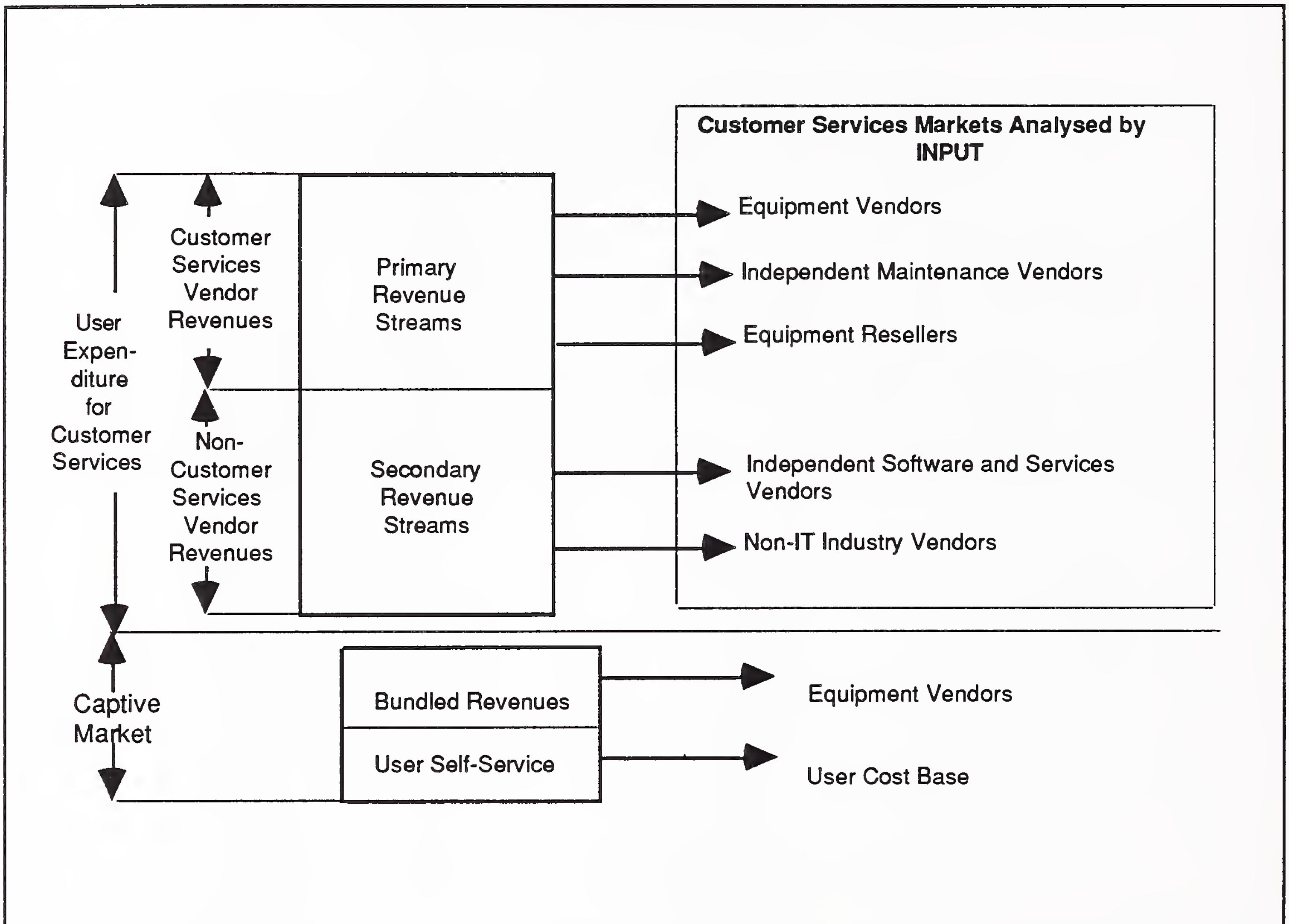
- **Dealers and distributors** are defined as vendors who service equipment sold by them, either as an agent of the equipment manufacturer or as a value-added reseller (VAR).

D
Customer Services Revenue Streams

Exhibit III-3 provides a diagrammatic representation of the total customer services market. This model indicates the captive and non-captive revenue components of the total customer services market and the various revenue streams that combine to form the total market.

Exhibit III-3

Customer Services Revenue Streams



Source: INPUT

User expenditure for customer services forms that portion of the market in which users are provided with vendor services for which they pay separately. This portion of the market sub-divides into two components:

- **Customer services vendor revenues.** This portion of the customer services market refers to vendors for whom customer services revenues are considered to be a primary revenue stream:
  - Equipment Vendors
  - Independent Maintenance Companies
  - The Dealer/Distributor portion of the indirect equipment resellers market.

- **Non-customer services vendor revenues** refer to user expenditure for customer services with vendors for whom customer services revenues are not considered to be a primary stream. This portion of the market results from the following activities:

  - The system integration (SI) and turnkey systems segments of the indirect equipment resellers' market. In a minority of cases, these vendors provide service and support for the system platform

  - Software and services vendors whose primary source of revenue results from such items as custom software development will sometimes also provide systems support

  - Non-industry vendors such as building/construction companies or specialist product and building services companies that provide environmental services. Provision of these services is a secondary aspect to the vendor's main line of business; for example, a specialist air- conditioning company might service many industry sectors, with systems for a whole range of applications besides computer room air-conditioning.

The captive portion of the customer services market relates to the provision of services for which the user does not pay separately. For example:

- Systems software support charges may be bundled as part of the software license fee, rather than paid for separately by the user

- Users who wholly or partly provide their own customer services from the use of in-house resources. In this case, the charges for services are accrued as an in-house cost and therefore do not result in external expenditure.

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IV

European Customer Services Market, 1994-1999

This chapter contains an analysis of customer services market conditions in 1994, plus forecasts for the growth of user expenditure on customer services in Europe for 1994 to 1999. For both country market and service sector growth, forecasts are presented in US dollars and ECUs, converted from local currencies.

A
Analysis of 1994 Customer Services Market

An estimate for the size of the total customer services market for 1994 in Europe is provided by Exhibit IV-1. This estimate includes both open market user expenditure for services paid for separately and the captive portion of the market.

Exhibit IV-1

European User Expenditures Customer Services, 1994 ($Millions)

A

	Hardware Service	Environ-mental Services	Systems Software Support	Educa-tion and training	Other Pro-fessional Services	Business Continuity Services	Total Customer Services	All Other Service
Customer Services Vendor Revenues:	12,085	1,535	1,060	835	825	270	16,610	6,692
• Equipment Vendors	10,205	1,385	910	765	610	220	14,095	6,635
• Independent Maintenance Vendors	1,380	130	80	25	155	40	1,810	40
• Dealers & Distributors	500	20	70	45	60	10	705	17
Independent Software & Services Vendor Customer Services Revenue	15	–	520	1,585	50	150	2,320	34,500
Non-IT industry Vendor Customer Services Revenues	–	5,575	–	–	150	–	5,725	0
Total (Rounded)	12,100	7,110	1,580	2,420	1,020	420	24,650	41,190

B

Bundled	–	–	600	–	–	–	600	–
Self-service	160	3,600	135	2,750	1,175	–	7,820	–
Total (Rounded)	160	3,600	730	2,750	1,170	–	8,420	–
Total Potential Market (Rounded)	12,260	10,700	2,330	5,150	2,170	420	33,070	41,190

Source: INPUT

Key:

A = User Expenditure (i.e. Open Market)

B = Captive Market

Exhibit IV-1 indicates that in 1994 the total customer services market is anticipated to represent just over $33 billion ($37 billion in 1993). User expenditure for customer services represents 75% (77% in 1993) of this total, the remaining 25% (1993, 23%) forming the captive portion of the market.

User expenditure for customer services in the open market (that is, services paid for separately) will total about $24.7 billion. Of this amount, about 67% (1993, 69%) of user expenditure will be with customer services vendors, i.e. vendors for whom customer services are considered a primary source of revenue. The remaining user expenditure is split between software and services vendors (just over 9%, up fractionally from 1993) and non-industry vendors (23%, 22% in 1993).

The user expenditure on customer services provided by non-industry vendors is principally for environmental services provided by building/construction companies, and specialist building services and product companies. These companies provide environmental services to computer users, often as a secondary activity to their normal business activities.

The captive portion of the customer services market is in two parts:

- The first part is systems software support revenues, collected as an item which is bundled with the software licence fee, accounting for over 7% (7% in 1993) of the captive market
- The second and larger part of the captive portion of the customer services market results from user self-service and the primary area in which this is effective is the in-house provision of environmental services. User self-service accounts for the remaining 93% (93% in 1993) of the captive portion of the market, of which almost 46% (48% in 1993) is related to the provision of environmental services.

The high environmental services content of user self-service is estimated to represent $3.6 billion.

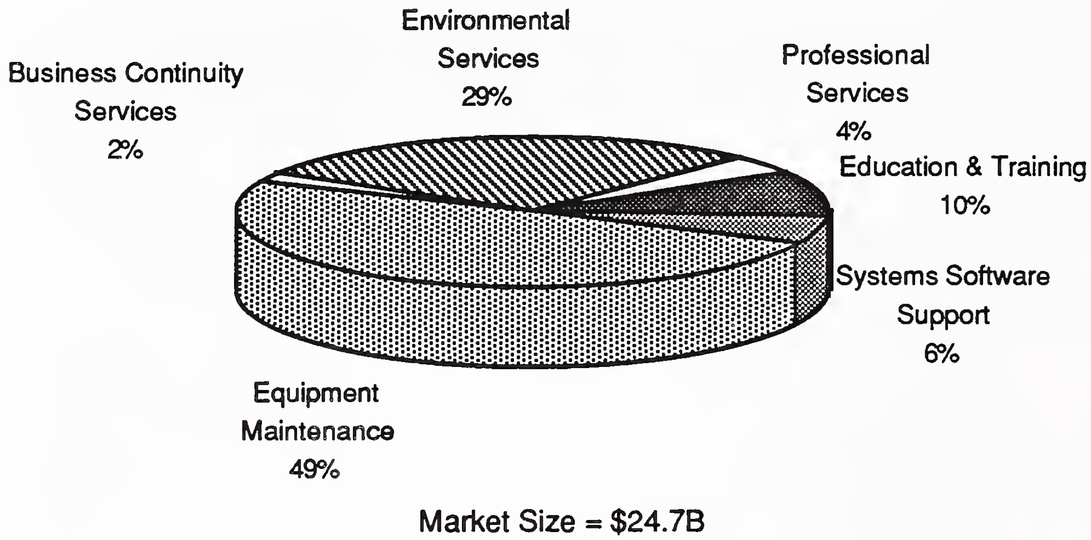
B

Customer Services Market by Sector

User expenditure for customer services is broken down by service sector in Exhibits IV-2 and IV-3. Exhibit IV-2 shows open market expenditure, while Exhibit IV-3 shows the captive portion of the market.

Exhibit IV-2

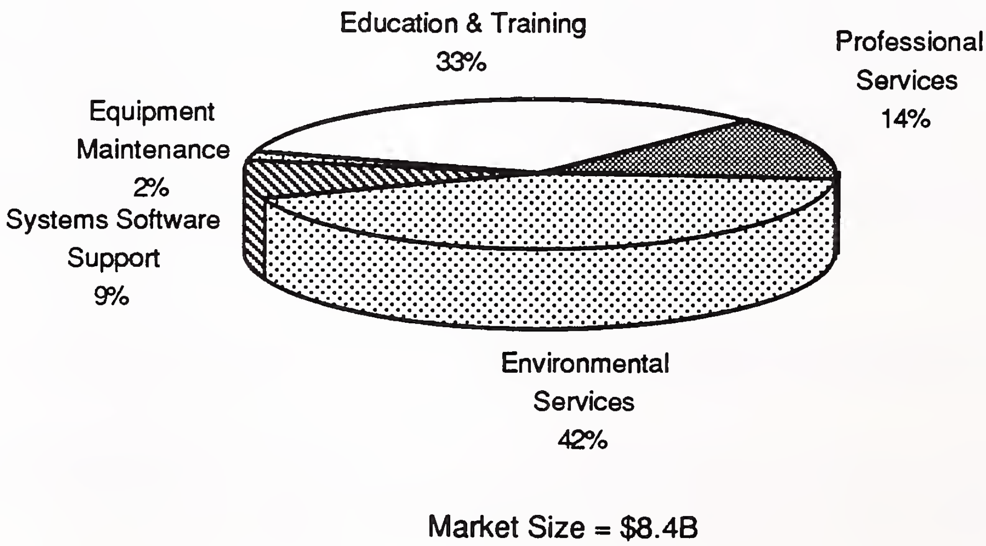
**European User Expenditure (Open Market)–
Customer Services, 1994 ($ Millions)**



Source: INPUT

Exhibit IV-3

**European User Expenditure (Captive Market)–
Customer Services, 1994 ($ Millions)**



Source: INPUT

The growth of the equipment maintenance sector in Europe is forecast to be negative at -4% CAGR over the five-year period 1994 to 1999. This growth figure includes an allowance for inflation of approximately 2.8%, indicating that the equipment service sector's real decline is larger than that shown by the actual figures; i.e. there is a real decline of about 6.8% per annum over the forecast period.

In 1994, user expenditure for equipment maintenance represented almost 50% of the total customer services market. This figure is forecast to fall to 36% by 1999.

Growth in the non-maintenance service sectors remains relatively healthy. User expenditure in these sectors is forecast to grow at a CAGR of 6%, with the component sectors growing as follows:

- Systems software support expenditure, which now accounts for just over 6% of the total customer services market, will grow slowly to just over 7% by 1999
- Environmental services expenditure which now accounts for almost 29% of the total market, will grow to almost 35% by 1999. By 1999, the environmental services market will almost equal the maintenance market in size
- Education and Training expenditure accounts for nearly 10% of the total market in 1994, growing to 11% by 1999
- Professional services account for 4% of the total market in 1994, rising to almost 7% by 1999
- Business continuity services expenditure accounts for between 1% and 2% of the total market in 1994, and is forecast to grow to over 3% in 1999.

Exhibit IV-4 provides a detailed European forecast for the growth of each customer services sector in the period 1994 to 1999. Figures presented in this exhibit have been converted to US dollars from local currencies. *Note that when expressed in U.S. dollars, the European forecast shows a fall of 7% on last year's forecast, due to exchange rate fluctuations.*

Exhibit IV-5 shows the same forecast expressed in ECUs.

Exhibit IV-4

Customer Services Market by Sector, 1994-1999–($Millions)

Service Sector	1993	Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	12,700	–5	12,100	11,700	11,300	10,700	10,300	9,700	–4
Environmental Services	6,710	6	7,110	7,550	7,980	8,440	8,880	9,350	6
Systems Software Support	1,520	4	1,580	1,640	1,710	1,800	1,890	1,960	4
Education & Training	2,310	5	2,420	2,510	2,610	2,730	2,870	2,990	4
Business Continuity Services	360	17	420	490	565	650	765	880	16
Other Professional Services	915	12	1,025	1,150	1,285	1,430	1,600	1,790	12
Total Customer Services	24,500	1	24,700	25,000	25,400	25,800	26,300	26,700	2

Source: INPUT

Exhibit IV-5

Customer Services Market by Sector, 1994-1999–(ECU Millions)

Service Sector	1993	Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	11,400	–4	10,900	10,500	10,100	9,700	9,300	8,800	–4
Environmental Services	6,000	6	6,370	6,760	7,140	7,560	7,950	8,390	6
Systems Software Support	1,360	4	1,420	1,470	1,530	1,610	1,690	1,760	4
Education & Training	2,070	5	2,170	2,250	2,340	2,450	2,580	2,690	4
Business Continuity Services	320	17	375	440	505	585	690	795	16
Other Professional Services	820	12	920	1,030	1,150	1,285	1,435	1,605	12
Total Customer Services	22,000	1	22,100	22,400	22,800	23,200	23,600	24,000	2

Source: INPUT

C

Customer Services Market Growth by Country

Exhibit IV-6 provides INPUT's forecast for the growth of the customer services market in the sixteen Western European country markets and in Eastern Europe (taken as one group), over the five-year period 1994 to 1999, converted to U.S. dollars from local currencies.

In 1992 and 1993, INPUT marked down the projected growth of the customer services market to reflect the effects of the economic recession. Over the last year, the UK, Sweden and Finland have been followed out of recession by Germany, but most other European countries have continued to feel the lasting effects of recession.

Despite a generally brighter European economic outlook, the overall growth forecast for 1994 to 1999 remains low, at just 2% CAGR. However, this reflects the significant dampening effect of the declining equipment maintenance sector. This sector, which represents almost 50% of the total market in 1994, is forecast to shrink 4% (CAGR) over five years.

Growth figures provided by Exhibit IV-6 include an allowance for inflation which at the overall European level is calculated at 2.8% (compared with 3% shown in 1993).

Exhibit IV-7 shows the same forecast in ECUs.

Exhibit IV-6

Country Market Growth
European Customer Services, 1994-1999 ($ Millions)

Country Market	Market Size ($ Millions)				
	1993	Growth 1993-1994 (%)	1994	1999	CAGR 1994-1999 (%)
France	4,470	-1	4,420	4,660	1
Germany	5,360	-2	5,280	5,340	0
United Kingdom	4,510	2	4,590	4,880	1
Italy	2,420	2	2,460	2,640	1
Sweden	850	3	870	1,100	5
Denmark	550	3	560	600	2
Norway	490	0	490	570	3
Finland	350	1	360	400	2
Netherlands	1,650	2	1,680	1,910	3
Benelux	690	1	700	710	0
Spain	930	3	960	1,070	2
Switzerland	1,190	2	1,220	1,400	3
Austria	460	2	470	470	0
Greece	55	-2	50	60	2
Ireland	150	2	150	170	2
Portugal	110	5	120	150	5
Eastern Europe	290	7	310	550	12
Total (rounded)	24,500	1	24,700	26,700	2

Source: INPUT

Exhibit IV-7

Country Market Growth
European Customer Services, 1994-1999 (ECU Millions)

Country Market	Market Size (ECU Millions)				
	1993	Growth 1993-1994 (%)	1994	1999	CAGR 1994-1999 (%)
France	4,010	-1	3,960	4,170	1
Germany	4,800	-2	4,730	4,790	0
United Kingdom	4,050	2	4,120	4,380	1
Italy	2,170	2	2,220	2,370	1
Sweden	760	3	780	980	5
Denmark	490	3	505	545	2
Norway	440	0	440	510	3
Finland	320	1	325	370	2
Netherlands	1,475	2	1,500	1,705	3
Benelux	620	1	630	640	0
Spain	835	3	860	960	2
Switzerland	1,005	2	1,030	1,180	3
Austria	405	2	410	420	0
Greece	47	-2	46	50	2
Ireland	133	2	135	150	2
Portugal	100	5	105	135	5
Eastern Europe	260	7	280	495	12
Total (rounded)	22,000	1	22,100	24,000	2

Source: INPUT

D
Customer Services Market by Platform

Exhibit IV-8 shows the delivery of customer services by computer platform in 1994, while Exhibit IV-9 shows the market growth by platform between 1994 and 1999.

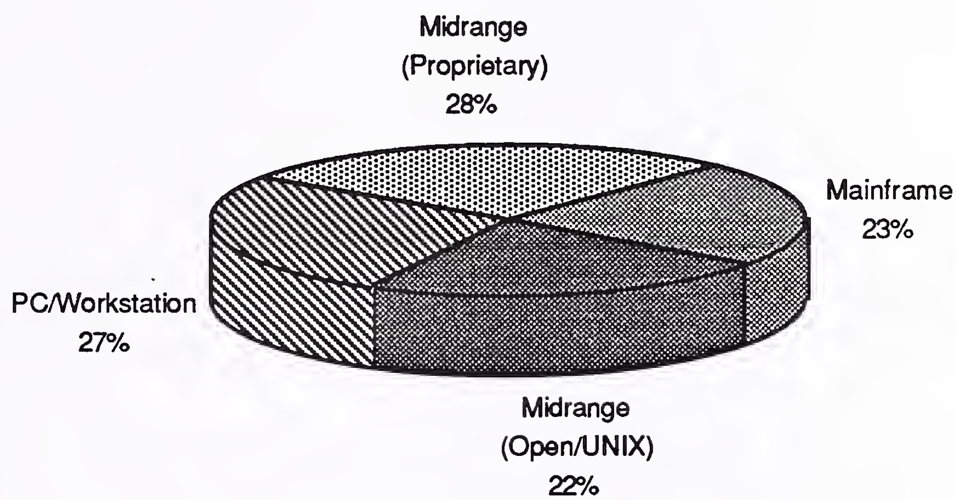
Currently, the distribution of service delivery is fairly evenly spread across all four platforms, with the proprietary midrange platform the largest by a small margin. However, both the proprietary midrange and mainframe platforms will show a sharp decline over the next five years (-7% and -5% CAGR respectively). By 1999, customer services on mainframe and proprietary midrange platforms will fall from 50% to about a third of the total market.

The market for maintenance at the PC end of the market will continue to fall away sharply, though this will be counterbalanced by significant growth in value-added services. The net result will be modest growth (4% CAGR) over the next five years.

The biggest growth area is in the open/UNIX server market, which will rise from just over 20% to 35% of the market by 1999. The open server and PC/workstation platforms combined (i.e. effectively the client/server market) will be dominant, with collectively 65% of the customer services market by 1999.

Exhibit IV-8

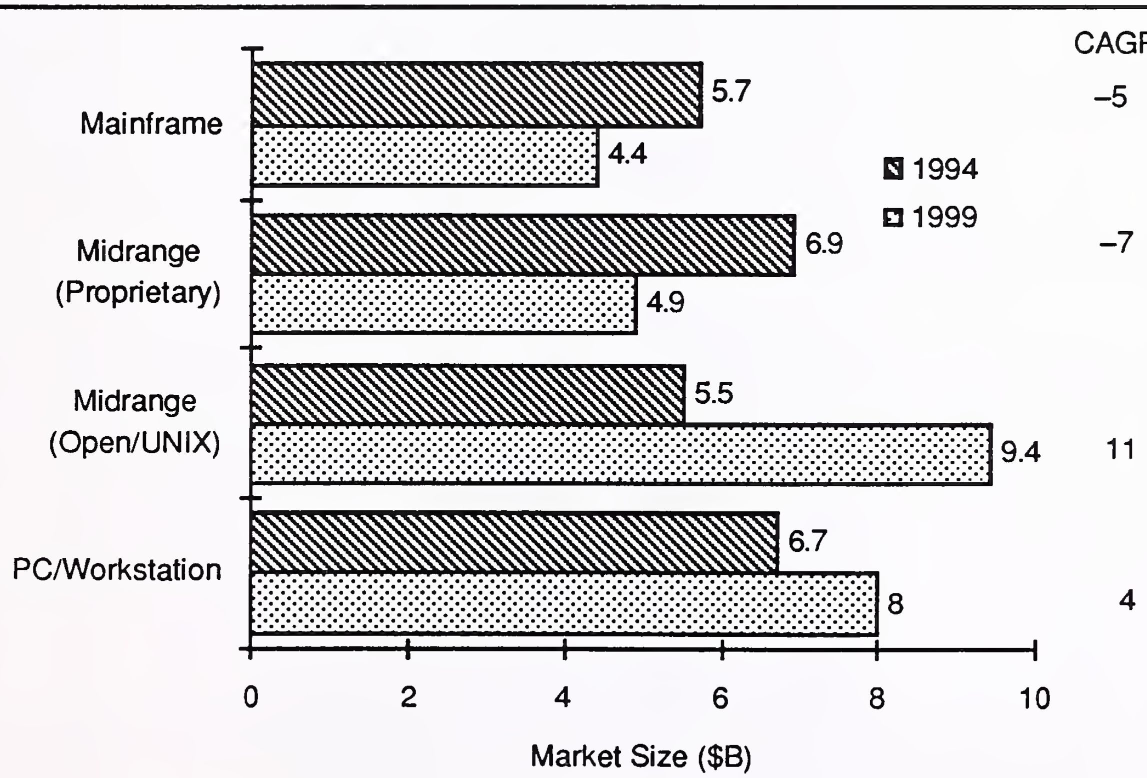
European Customer Services Market by Platform 1994



Source: INPUT

Exhibit IV-9

Market Growth by Platform - European Customer Services 1994-1999 ($ Millions)



Source: INPUT

E

Customer Services Revenues of the Leading Vendors

A breakdown of the 1993 customer services revenues of the twenty leading customer services vendors in Europe is provided in Exhibit IV-10. The figures are shown in US dollars and are tabulated by service sector.

Exhibit IV-10

Top 20 Leading Service Vendors by European Customer Services Revenues, 1993

Vendor	Equipment Services	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
IBM	2,460	390	0	210	50	50	3,160
Digital	1,010	265	250	115	50	10	1,700
Siemens-Nixdorf	1,290	85	5	80	20	10	1,490
Bull	695	50	60	60	40	0	900
HP	550	70	60	60	85	20	845
Olivetti	690	70	20	20	30	0	830
ICL	640	40	90	5	35	10	820
Unisys	510	80	45	55	35	30	755
AT&T	500	35	25	20	105	0	685
Getronics	140	50	25	15	60	10	300
ICG	300	0	0	0	0	0	300
Wang	190	35	20	10	15	0	270
Computer-Vision	110	20	50	20	10	5	215
Rank Xerox	180	20	0	0	0	0	200
Granada	180	5	0	0	5	10	200
Oracle	0	0	90	100	0	0	190
Sun Microsystems	125	15	25	20	5	0	190
Amdahl	135	2	5	5	20	2	170
Thomainfor	140	5	5	0	10	0	160
Memorex	120	0	0	0	0	0	120

Source: INPUT

Note: Totals may not add up due to rounding.

V

European Customer Services Country Market Forecasts, 1994-1999

This chapter contains exhibits showing the market sizes and growth forecasts for customer services in 16 Western European countries plus Eastern Europe (as a single group). Two types of analysis are given in local currency for each country:

- **Market size and structure**, showing the top 10 vendors plus the revenues of the five vendor types which are active in the market:
  - Systems (equipment) vendors
  - Independent Maintenance Organisations (IMOs)
  - Dealers, distributors and Value-Added Resellers (VARs)
  - Independent software and services vendors
  - Non-IT industry vendors (mainly construction and building services vendors)
- **Five-year forecast by service sector**, with 1993 as the base year and 1994 to 1999 as the forecast period.

Exhibit V-1

Customer Services Revenues, 1993–France (FF Millions)

Vendor	Equipment Maintenance	Environmental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
IBM	2,660	409	0	230	55	40	3,390
Groupe Bull	2,120	75	143	218	156	0	2,710
Digital	860	283	202	97	40	5	1,490
HP	530	66	58	49	65	20	790
Thomainfor	690	16	16	0	52	0	770
Unisys	530	127	29	32	22	23	760
Siemens-Nixdorf	580	0	2	24	0	3	610
AT&T	430	30	23	21	99	0	610
Olivetti	440	16	4	6	7	0	470
ICL [Fujitsu]	370	7	26	3	10	0	420
Other Systems Vendors	2,960	270	290	130	200	20	3,870
IMOs (1)	1,100	100	20	12	47	12	1,290
VARs (2)	240	125	35	15	75	0	490
ISVs (3)	195	20	330	2,520	18	250	3,330
Non-Industry Vendors (4)	0	5,355	0	0	50	0	5,410
TOTAL MARKET	13,700	6,900	1,180	3,350	900	370	26,400

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-2

Customer Services Market Forecast, 1994-1999 France

	Market Size (FF Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	13,700	-8	12,600	12,100	11,600	10,800	10,300	9,500	-5
Environmental Services	6,900	6	7,300	7,800	8,300	8,800	9,200	9,700	6
Systems Software Support	1,180	2	1,200	1,230	1,270	1,310	1,410	1,500	5
Education & Training	3,350	8	3,610	3,740	3,870	4,010	4,210	4,410	4
Business Continuity Services	370	14	420	470	535	610	705	815	14
Other Professional Services	900	11	1,000	1,100	1,220	1,340	1,470	1,600	10
Total Customer Services	26,400	-1	26,100	26,400	26,800	26,900	27,300	27,500	1

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit V-3

Customer Services Revenues, 1993–Germany (DM Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
Siemens-Nixdorf	1,420	84	9	88	35	10	1,650
IBM	940	176	0	87	23	14	1,240
Digital	260	100	81	32	13	5	490
HP	160	28	24	37	49	8	310
Unisys	110	14	12	13	9	9	170
AT&T	120	8	6	4	25	0	160
Bull	110	21	7	7	10	0	150
Comparex	120	9	5	2	2	2	140
Olivetti	90	4	1	1	2	0	100
ICL [Fujitsu]	70	1	2	0	2	0	80
Other Systems Vendors	800	180	60	60	40	10	1,150
IMOs (1)	253	30	10	8	16	3	320
VARs (2)	233	35	40	16	70	0	390
ISVs (3)	50	0	337	700	25	57	1,170
Non-Industry Vendors (4)	0	1780	0	0	30	0	1,810
TOTAL MARKET	4,730	2,470	590	1,060	350	120	9,320

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-4

Customer Services Market Forecast, 1994-1999 Germany

	Market Size (DM Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	4,730	-8	4,360	4,030	3,820	3,660	3,490	3,320	-5
Environmental Services	2,470	5	2,590	2,720	2,830	2,940	3,060	3,180	4
Systems Software Support	590	4	615	630	645	660	675	675	2
Education & Training	1,060	4	1,100	1,150	1,200	1,250	1,300	1,300	3
Business Continuity Services	120	8	130	140	150	165	185	210	10
Other Professional Services	350	9	380	420	460	510	560	600	10
Total Customer Services	9,320	-2	9,180	9,090	9,110	9,190	9,270	9,290	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit V-5

Customer Services Revenues, 1993–United Kingdom (£ Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
ICL (Fujitsu)	200	26	43	2	11	6	290
Digital	200	25	36	15	6	4	290
IBM	220	21	0	21	5	11	280
HP	100	11	10	8	11	3	140
Unisys	80	13	6	7	5	5	120
Granada	70	2	0	0	2	5	80
AT&T	60	4	3	4	14	0	80
Bull	50	3	7	7	2	0	70
Olivetti	50	2	0	1	1	0	50
Wang	30	7	3	2	2	0	45
Other Systems Vendors	225	50	18	11	20	11	340
IMOs (1)	200	12	20	6	8	6	250
VARs (2)	40	6	13	12	7	0	80
ISVs (3)	15	0	94	97	22	32	260
Non-Industry Vendors (4)	0	668	0	0	5	0	670
TOTAL MARKET	1,540	850	250	195	120	85	3,050

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-6

Customer Services Market Forecast, 1994-1999
United Kingdom

	Market Size (£ Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	1,540	-5	1,460	1,400	1,330	1,200	1,120	1,030	-7
Environmental Services	850	7	910	960	1,010	1,070	1,120	1,180	5
Systems Software Support	250	12	280	300	320	350	370	395	7
Education & Training	195	3	200	205	205	210	215	220	2
Business Continuity Services	85	24	105	130	155	180	215	240	18
Other Professional Services	120	17	140	160	180	200	220	250	12
Total Customer Services	3,050	2	3,100	3,150	3,200	3,200	3,250	3,300	1

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit V-7

Customer Services Revenues, 1993–Italy (Lira Billions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
IBM	610	116	0	60	15	7	810
Olivetti	590	84	23	24	39	0	760
Digital	140	55	45	21	9	1	270
Bull	150	12	6	7	2	0	180
HP	90	11	10	8	11	3	130
Siemens-Nixdorf	100	0	1	7	0	1	110
Unisys	50	9	6	7	5	5	80
AT&T (NCR)	40	3	2	1	9	0	60
Wang	30	3	3	2	2	0	40
Prime	20	3	4	2	0	0	30
Other Systems Vendors	145	40	30	10	10	0	230
IMOs (1)	155	8	5	2	2	1	170
VARs (2)	220	45	6	2	3	0	280
ISVs (3)	8	25	100	100	4	9	250
Non-Industry Vendors (4)	1	740	0	2	0	0	740
TOTAL MARKET	2,350	1,150	240	250	110	28	4,130

Source: INPUT

Notes: (1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-8

Customer Services Market Forecast, 1994-1999 Italy

	Market Size (Lira Billions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	2,350	0	2,355	2,320	2,265	2,200	2,095	1,990	-3
Environmental Services	1,150	5	1,205	1,260	1,325	1,410	1,505	1,600	6
Systems Software Support	240	-2	235	245	265	280	305	320	6
Education & Training	250	6	265	265	270	290	315	340	5
Business Continuity Services	28	11	31	33	32	41	50	58	13
Other Professional Services	110	9	120	130	140	160	180	200	11
Total Customer Services	4,130	2	4,210	4,250	4,300	4,380	4,450	4,510	1

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit V-9

Customer Services Revenues, 1993–Sweden (SK Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
IBM	750	85	0	25	8	10	880
Digital	280	59	87	28	11	2	470
ICL (Fujitsu)	360	11	33	2	14	2	420
Unisys	150	20	12	13	9	9	210
Siemens-Nixdorf	170	0	1	8	0	1	180
HP	110	13	12	10	13	4	160
Sun Microsystems	80	2	25	12	2	0	120
Bull	90	6	25	3	3	0	130
ComputerVision	70	15	19	8	0	1	110
Wang	80	13	8	4	6	0	110
Other Systems Vendors	570	60	20	34	105	13	800
IMOs (1)	345	8	5	10	32	7	410
VARs (2)	580	25	4	60	43	0	710
ISVs (3)	12	5	98	443	50	29	640
Non-Industry Vendors (4)	1	1680	0	0	0	0	1680
TOTAL MARKET	3,650	2,000	350	660	300	80	7,050

Source: INPUT

Notes:
- (1) IMOs = Independent Maintenance Organisations
- (2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
- (3) ISVs = Independent Software/Services Vendors
- (4) Non-IT Industry Vendors are from the Construction and Building Services sectors
- (5) Totals may not add up due to rounding.

Exhibit V-10

Customer Services Market Forecast, 1994-1999 Sweden

	Market Size (SK Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	3,650	0	3,650	3,710	3,740	3,770	3,800	3,790	1
Environmental Services	2,000	8	2,150	2,350	2,550	2,750	2,950	3,150	8
Systems Software Support	350	0	350	360	380	400	420	440	5
Education & Training	660	3	680	720	780	850	920	970	7
Business Continuity Services	80	13	90	100	110	120	130	150	11
Other Professional Services	300	13	340	390	440	500	570	640	13
Total Customer Services	7,050	3	7,250	7,650	8,000	8,400	8,800	9,150	5

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit V-11

Customer Services Revenues, 1993–Denmark (DK Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
IBM	550	92	0	33	11	8	690
AT&T	150	10	8	4	31	0	200
Digital	100	47	28	14	6	1	200
ICL (Fujitsu)	140	0	13	1	8	1	160
Olivetti	140	7	2	3	3	0	150
Siemens-Nixdorf	130	0	0	0	0	0	130
HP	60	7	6	5	7	2	90
Unisys	40	6	4	4	3	3	60
ComputerVision	30	6	8	3	0	0	50
Bull	30	5	7	1	2	0	40
Other Systems Vendors	310	40	50	40	30	0	470
IMOs (1)	58	8	6	3	10	2	90
VARs (2)	45	7	14	7	60	0	130
ISVs (3)	23	0	84	140	10	2	260
Non-Industry Vendors (4)	0	970	0	0	0	0	970
TOTAL MARKET	1,800	1,200	230	260	180	18	3,700

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-12

Customer Services Market Forecast, 1994-1999 Denmark

	Market Size (DK Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	1,800	-2	1,765	1,680	1,630	1,570	1,470	1,365	-5
Environmental Services	1,200	9	1,305	1,380	1,485	1,585	1,650	1,705	5
Systems Software Support	230	0	230	240	240	260	270	280	4
Education & Training	260	4	270	280	290	310	320	330	4
Business Continuity Services	18	22	22	27	34	41	50	62	23
Other Professional Services	180	11	200	230	260	290	320	350	12
Total Customer Services	3,700	3	3,800	3,850	3,950	4,050	4,100	4,100	2

Source: INPUT

Note: Totals may not add up due to rounding

Exhibit V-13

Customer Services Revenues, 1993–Norway (NK Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
IBM	370	64	0	23	8	6	470
Norsk Data (Comma)	300	21	46	8	50	2	430
ICL (Fujitsu)	160	0	14	1	6	1	180
Olivetti	150	8	2	3	4	0	170
Digital	100	11	24	12	5	1	150
AT&T	70	4	3	2	14	0	90
Bull	50	3	15	2	6	0	80
Siemens-Nixdorf	70	0	0	0	0	0	70
ComputerVision	40	9	11	4	0	0	65
HP	40	5	4	4	5	1	60
Other Systems Vendors	310	30	17	30	18	20	425
IMOs (1)	75	5	3	6	7	1	100
VARs (2)	65	5	24	5	15	0	110
ISVs (3)	30	10	45	248	15	20	370
Non-Industry Vendors (4)	0	935	0	0	0	0	940
TOTAL MARKET	1,830	1,110	205	350	150	50	3,700

Source: INPUT

Notes: (1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketeters
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-14

Customer Services Market Forecast, 1994-1999 Norway

	Market Size (NK Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	1,830	-3	1,780	1,790	1,780	1,750	1,710	1,670	-1
Environmental Services	1,110	0	1,110	1,180	1,240	1,290	1,380	1,440	5
Systems Software Support	205	7	220	230	245	265	290	320	8
Education & Training	350	1	355	375	395	420	440	460	5
Business Continuity Services	50	20	60	70	80	90	110	130	17
Other Professional Services	150	7	160	180	200	220	250	270	11
Total Customer Services	3,700	0	3,690	3,830	3,940	4,040	4,180	4,290	3

Source: INPUT

Note: Totals may not add up due to rounding

Exhibit V-15

Customer Services Revenues, 1993–Finland (FM Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
ICL (Fujitsu)	380	6	35	1	21	2	450
Digital	140	62	37	18	7	1	270
IBM	190	39	0	11	4	3	250
Siemens-Nixdorf	80	0	0	0	0	0	80
ComputerVision	30	6	8	3	0	0	50
AT&T	30	2	1	1	5	0	40
Unisys	20	4	2	3	2	2	30
Rank Xerox	20	2	0	0	0	0	20
Wang	10	2	3	1	2	0	20
Tandem	10	0	1	1	0	0	10
Other Systems Vendors	60	70	20	20	10	4	180
IMOs (1)	25	22	2	1	7	1	60
VARs (2)	20	2	3	4	9	0	40
ISVs (3)	10	0	43	90	9	25	180
Non-Industry Vendors (4)	0	370	0	0	0	0	370
TOTAL MARKET	1,030	585	150	150	80	40	2,040

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-16

Customer Services Market Forecast, 1994-1999 Finland

	Market Size (FM Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	1,030	-4	990	965	925	885	845	810	-4
Environmental Services	585	7	625	680	725	775	825	880	7
Systems Software Support	150	0	150	150	150	160	170	180	4
Education & Training	150	0	150	155	160	165	175	185	4
Business Continuity Services	40	25	50	60	70	80	90	110	17
Other Professional Services	80	13	90	100	110	120	140	160	12
Total Customer Services	2,040	1	2,060	2,110	2,140	2,190	2,250	2,330	2

Source: INPUT

Note: Totals may not add up due to rounding

Exhibit V-17

Customer Services Revenues, 1993–Netherlands (Dfl Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
Getronics	230	81	45	21	114	18	510
IBM	290	49	0	16	5	4	365
Digital	110	14	27	13	5	1	170
Unisys	80	10	5	5	4	4	100
HP	60	7	6	5	7	2	90
AT&T	50	3	3	1	10	0	70
Siemens-Nixdorf	60	0	0	4	0	0	65
Olivetti	40	7	2	2	3	0	55
Bull	40	5	3	1	2	0	50
ICL (Fujitsu)	40	0	3	1	5	0	50
Other Systems Vendors	385	30	30	20	12	5	480
IMOs (1)	110	5	5	4	2	3	130
VARs (2)	40	6	17	7	1	0	70
ISVs (3)	18	5	44	243	3	8	320
Non-Industry Vendors (4)	0	650	0	0	0	0	650
TOTAL MARKET	1,550	875	190	340	175	45	3,200

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhbit V-18

Customer Services Market Forecast, 1994-1999 Netherlands

	Market Size (DFl Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	1,550	-4	1,490	1,440	1,370	1,310	1,240	1,170	-5
Environmental Services	875	9	950	1,030	1,105	1,185	1,260	1,340	7
Systems Software Support	190	0	190	185	180	175	170	165	-3
Education & Training	340	6	360	385	410	435	475	540	8
Business Continuity Services	45	22	55	65	75	85	100	120	17
Other Professional Services	175	14	200	230	260	290	330	380	14
Total Customer Services	3,200	2	3,250	3,350	3,400	3,500	3,600	3,700	3

Source: INPUT

Note: Totals may not add up due to rounding

Exhibit V-19

Customer Services Revenues, 1993–Belgium (BF Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
IBM	2,460	428	0	190	63	35	3,180
Digital	1,090	347	333	159	65	11	2,000
Siemens-Nixdorf	1,350	416	11	111	0	12	1,900
Unisys	800	144	115	126	87	54	1,330
HP	820	99	87	74	98	30	1,210
Olivetti	900	74	20	28	34	0	1,060
Getronics	500	175	98	46	60	39	920
Bull	690	98	86	24	12	0	910
AT&T	410	28	22	11	84	0	560
Wang	360	43	31	16	24	0	470
Other Systems Vendors	2,360	120	480	150	90	10	3,210
IMOs (1)	1,350	20	25	10	34	22	1,460
VARs (2)	350	10	30	85	20	0	500
ISVs (3)	150	0	560	1,365	5	12	2,090
Non-Industry Vendors (4)	2	4,350	0	0	0	0	4,350
TOTAL MARKET	13,600	6,350	1,900	2,390	680	225	25,100

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-20

Customer Services Market Forecast, 1994-1999 Belgium

	Market Size (BF Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	13,600	-3	13,200	12,800	12,300	11,700	11,000	10,500	-4
Environmental Services	6,350	6	6,750	7,150	7,500	7,800	8,050	8,350	4
Systems Software Support	1,900	0	1,900	2,000	2,100	2,200	2,300	2,400	5
Education & Training	2,390	1	2,420	2,470	2,500	2,560	2,620	2,650	2
Business Continuity Services	225	7	240	255	290	330	385	475	15
Other Professional Services	680	12	760	850	940	1,050	1,180	1,350	12
Total Customer Services	25,100	1	25,300	25,500	25,600	25,600	25,500	25,700	0

Source: INPUT

Note: Totals may not add up due to rounding

Exhibit V-21

Customer Services Revenues, 1993–Spain (Pta Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
IBM	15,010	2,573	0	1,429	357	166	19,530
Digital	5,720	1,429	999	495	372	14	9,030
HP	5,430	686	600	429	827	50	8,020
AT&T	6,290	429	200	157	600	0	7,680
Siemens-Nixdorf	5,500	821	30	307	1	34	6,690
Olivetti	5,000	196	52	73	89	0	5,410
Eltec	4,120	403	1	1	0	0	4,530
Bull	3,440	533	339	120	24	0	4,460
Unisys	3,000	409	231	254	176	183	4,250
ICL (Fujitsu)	2,540	1	211	1	59	9	2,820
Other Systems Vendors	11,490	850	900	360	730	10	14,330
IMOs (1)	6,500	330	380	80	550	0	7,840
VARs (2)	1,700	830	900	105	120	0	3,660
ISVs (3)	250	1	2,300	4,690	100	40	7,380
Non-Industry Vendors (4)	15	27,500	5	0	0	0	27,520
TOTAL MARKET	76,000	37,000	7,150	8,500	4,000	500	133,000

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-22

Customer Services Market Forecast, 1994-1999 Spain

	Market Size (Pta Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	76,000	-1	75,200	74,400	72,900	70,700	67,900	64,500	-3
Environmental Services	37,000	9	40,300	43,900	47,400	50,700	53,700	56,400	7
Systems Software Support	7,150	1	7,250	7,550	7,850	8,450	8,850	9,400	5
Education & Training	8,500	0	8,500	8,500	9,000	9,500	10,000	10,500	4
Business Continuity Services	500	10	550	620	720	860	1,040	1,270	18
Other Professional Services	4,000	24	4,950	6,000	7,150	8,300	9,650	11,150	18
Total Customer Services	133,000	3	137,000	141,000	145,000	149,000	151,000	153,000	2

Source: INPUT

Note: Totals may not add up due to rounding

Exhibit V-23

Customer Services Revenues, 1993–Switzerland (SF Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
Digital	100	18	24	16	7	1	160
IBM	110	14	0	17	4	3	150
AT&T	90	6	5	2	19	0	130
Unisys	50	4	4	4	3	3	70
Siemens-Nixdorf	40	12	0	4	0	0	60
HP	30	4	3	3	4	1	50
Bull	20	1	2	1	2	0	20
ICL (Fujitsu)	10	0	1	0	1	0	20
Data General	10	0	2	0	1	0	10
Olivetti	10	0	0	0	0	0	10
Other Systems Vendors	130	10	20	10	10	0	170
IMOs (1)	35	6	1	3	10	2	60
VARs (2)	125	20	5	4	0	0	150
ISVs (3)	3	0	33	100	0	6	140
Non-Industry Vendors (4)	0	455	0	0	0	0	460
TOTAL MARKET	775	550	95	160	56	20	1,660

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-24

Customer Services Market Forecast, 1994-1999 Switzerland

	Market Size (SF Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	775	0	775	775	770	765	760	745	-1
Environmental Services	550	5	580	610	640	670	700	725	5
Systems Software Support	95	0	95	100	105	110	120	120	5
Education & Training	160	0	160	165	170	180	190	205	5
Business Continuity Services	20	20	24	28	33	37	41	44	13
Other Professional Services	56	13	63	70	77	86	99	114	13
Total Customer Services	1,660	2	1,700	1,750	1,800	1,850	1,910	1,950	3

Source: INPUT

Note: Totals may not add up due to rounding

Exhibit V-25

Customer Services Revenues, 1993– Austria (Sch Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
IBM	750	103	0	42	14	10	920
Siemens-Nixdorf	410	140	4	41	0	5	600
Digital	270	56	116	55	23	2	520
Unisys	270	24	17	19	13	14	360
HP	150	18	15	13	17	5	210
AT&T	110	8	6	3	23	0	150
Bull	110	10	10	4	10	0	140
Comparex	70	5	3	1	1	0	80
ICL (Fujitsu)	70	0	5	0	3	0	80
ComputerVision	40	8	10	4	0	0	60
Other Systems Vendors	350	30	20	30	10	10	440
IMOs (1)	110	10	4	2	6	2	130
VARs (2)	220	20	20	2	0	0	260
ISVs (3)	26	0	170	208	0	4	410
Non-Industry Vendors (4)	0	1200	0	0	0	0	1200
TOTAL MARKET	2,950	1,630	400	415	120	50	5,570

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketeers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-26

Customer Services Market Forecast, 1994-1999 Austria

	Market Size (Sch Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	2,950	-2	2,890	2,810	2,720	2,610	2,470	2,300	-4
Environmental Services	1,630	7	1,740	1,850	1,960	2,050	2,130	2,170	5
Systems Software Support	400	8	430	440	440	450	460	480	2
Education & Training	415	4	430	450	460	470	470	470	2
Business Continuity Services	50	20	60	70	90	110	140	170	23
Other Professional Services	120	8	130	140	150	160	180	200	9
Total Customer Services	5,570	2	5,680	5,760	5,820	5,850	5,850	5,790	0

Source: INPUT

Note: Totals may not add up due to rounding

Exhibit V-27

Customer Services Revenues, 1993–Greece (Dra Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
IBM	3350	421	0	77	26	19	3,890
Digital	1060	30	167	83	34	2	1380
AT&T	640	44	34	17	134	0	870
Bull	630	44	42	22	42	0	780
Olivetti	500	0	0	0	0	0	500
Rank Xerox	290	36	0	0	0	0	330
ICL (Fujitsu)	260	2	37	2	0	0	300
Wang	170	25	27	14	21	0	260
ComputerVision	160	32	41	15	0	1	250
Tandem	160	5	9	12	3	0	190
Other Systems Vendors	850	50	400	305	180	8	1,790
IMOs (1)	150	0	0	80	30	0	260
VARs (2)	270	0	140	550	90	0	1050
ISVs (3)	0	0	550	520	20	95	1190
Non-Industry Vendors (4)	0	70	0	0	0	0	70
TOTAL MARKET	8,500	760	1,500	1,700	580	125	13,200

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-28

Customer Services Market Forecast, 1994-1999 Greece

	Market Size (Dra Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	8,500	-7	7,910	7,440	7,070	6,790	6,520	6,190	-5
Environmental Services	760	5	800	850	910	980	1,060	1,130	7
Systems Software Support	1,500	7	1,600	1,700	1,900	2,100	2,300	2,600	10
Education & Training	1,700	5	1,780	1,870	1,960	2,090	2,220	2,350	6
Business Continuity Services	125	24	155	195	245	300	375	470	25
Other Professional Services	580	12	650	680	770	870	1,040	1,190	13
Total Customer Services	13,200	-2	12,900	12,700	12,900	13,100	13,500	13,900	2

Source: INPUT

Note: Totals may not add up due to rounding

Exhibit V-29

Customer Services Revenues, 1993–Ireland (IR £ Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
Digital	8	4	3	1	1	0	17
Unisys	6	1	1	1	1	1	11
IBM	7	2	0	1	0	0.1	10
HP	6	1	1	1	1	0.2	10
Siemens-Nixdorf	5	0	0	0	0	0	5
ICL (Fujitsu)	4	0	0	0	0	0	4
AT&T	3	0	0	0	1	0	3
Rank Xerox	3	0	0	0	0	0	3
Bull	2	1	0	0	0	0	3
Tandem	1	0	0	0	0	0	1
Other Systems Vendors	3	0	2	0	4	0	9
IMOs (1)	3	0	0	0	1	0	4
VARs (2)	1	0	0	0	2	0	3
ISVs (3)	0	0	3	5	0	2	10
Non-Industry Vendors (4)	0	13	0	0	0	0	13
TOTAL MARKET	50	21	10	9	11	4	105

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-30

Customer Services Market Forecast, 1994-1999 Ireland

	Market Size (IR £ Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	50	-4	48	46	44	42	40	37	-5
Environmental Services	21	5	22	23	24	25	26	27	4
Systems Software Support	10	10	11	11	12	12	12	11	0
Education & Training	9	0	9	9	9	10	10	11	3
Business Continuity Services	4	14	4	5	5	6	7	8	15
Other Professional Services	11	14	13	14	16	18	21	26	15
Total Customer Services	105	2	107	108	110	111	115	118	2

Source: INPUT

Note: Totals may not add up due to rounding

Exhibit V-31

Customer Services Revenues, 1993–Portugal (Esc Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
Digital	1,410	442	371	181	74	2	2,480
IBM	1,940	200	0	110	37	26	2,320
Unisys	1,410	247	175	192	133	138	2,300
Olivetti	1,770	0	0	0	0	0	1,770
HP	1,070	129	114	93	124	39	1,570
ICL (Fujitsu)	600	2	78	105	0	0	790
AT&T	450	31	24	12	95	0	620
Bull	450	90	30	16	5	0	590
Rank Xerox	400	50	0	0	0	0	450
Data General	280	0	50	9	12	0	350
Other Systems Vendors	1,350	250	60	10	210	10	1,880
IMOs (1)	850	10	3	0	45	0	910
VARs (2)	440	0	0	2	34	0	480
ISVs (3)	70	0	0	76	0	40	190
Non-Industry Vendors (4)	0	3050	0	0	0	0	3,050
TOTAL MARKET	12,500	4,500	900	800	770	250	19,700

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-32

Customer Services Market Forecast, 1994-1999 Portugal

	Market Size (Esc Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	12,500	2	12,700	13,000	13,300	13,500	13,200	13,400	1
Environmental Services	4,500	11	5,000	5,600	6,200	6,900	7,400	8,200	10
Systems Software Support	900	11	1,000	1,100	1,200	1,300	1,450	1,500	8
Education & Training	800	13	900	1,000	1,120	1,250	1,360	1,480	10
Business Continuity Services	250	20	300	350	400	450	500	550	13
Other Professional Services	770	9	840	870	970	1,070	1,230	1,440	11
Total Customer Services	19,700	5	20,700	21,900	23,200	24,500	25,100	26,600	5

Source: INPUT

Note: Totals may not add up due to rounding

Exhibit V-33

Customer Services Revenues, 1993–Eastern Europe
($ Millions)

Vendor	Equipment Maintenance	Environ-mental Services	Systems Software Support	Education & Training	Other Professional Services	Business Continuity Services	Total Customer Services
Unisys	13	2	3	10	3	2	33
IBM	27	2	0	1	0	0	30
Digital	11	2	0	0	0	0	13
ICL (Fujitsu)	5	0	2	0	0	0	7
Siemens-Nixdorf	6	0	0	0	0	0	6
Rank Xerox	4	0	0	0	0	0	4
Tandem	2	0	0	0	0	0	2
AT&T	2	0	0	0	0	0	2
Olivetti	2	0	0	0	0	0	2
HP	1	0	0	0	0	0	1
Other Systems Vendors	27	6	1	3	4	0	41
IMOs (1)	0	2	0	0	0	0	2
VARs (2)	60	0	0	0	3	0	63
ISVs (3)	20	0	4	22	2	0	48
Non-Industry Vendors (4)	0	34	0	0	0	0	34
TOTAL MARKET	180	48	10	36	12	2	290

Source: INPUT

Notes:
(1) IMOs = Independent Maintenance Organisations
(2) VARs = Dealers/Distributors/Value-Added Resellers or Remarketers
(3) ISVs = Independent Software/Services Vendors
(4) Non-IT Industry Vendors are from the Construction and Building Services sectors
(5) Totals may not add up due to rounding.

Exhibit V-34

Customer Services Market Forecast, 1994-1999 Eastern Europe

	Market Size ($ Millions)								
Service Sector	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	180	8	195	215	235	255	280	295	9
Environmental Services	48	0	48	53	61	72	91	120	20
Systems Software Support	10	0	10	10	9	8	6	4	-17
Education & Training	36	14	41	46	52	60	68	75	13
Business Continuity Services	2	33	2	3	5	10	15	24	64
Other Professional Services	12	17	14	16	19	22	28	34	19
Total Customer Services	290	7	310	340	380	430	490	550	12

Source: INPUT

Note: Totals may not add up due to rounding.

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Leading Customer Services Vendor Revenues

This appendix contains estmates of the 1993 customer services revenues of the leading 20 vendors in Europe. Each vendor's revenues (in U.S. dollars) are broken down by service sector and by country.

Vendors are presented in order of ranking by total customer services revenue. See Exhibit IV-10 for top 20 list.

Exhibit A-1

European Revenues–IBM Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-Mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total–All Countries	2460	390	0	210	50	50	3160
France	451	69	0	39	9	7	575
Germany	541	101	0	50	13	8	713
U.K.	331	32	0	31	8	16	418
Italy	359	68	0	35	9	4	475
Netherlands	148	25	0	8	3	2	186
Belgium/Luxembourg	68	12	0	5	2	1	88
Spain	105	18	0	10	3	1	137
Switzerland	81	10	0	12	3	2	108
Austria	62	8	0	3	1	1	75
Sweden	90	10	0	3	1	1	105
Denmark	81	14	0	5	2	1	103
Norway	49	8	0	3	1	1	62
Finland	33	7	0	2	1	0	43
Ireland	10	3	0	1	0	0	14
Portugal	11	1	0	1	0	0	13
Greece	13	2	0	0	0	0	15
Eastern Europe	27	2	0	1	0	0	30

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-2

European Revenues–Digital Equipment Corporation Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	1010	265	250	115	50	10	1700
France	145	48	34	17	7	1	252
Germany	150	58	46	18	7	3	282
U.K.	290	44	53	22	9	5	423
Italy	85	32	26	13	5	1	162
Netherlands	59	7	14	7	3	0	90
Belgium/Luxembourg	30	10	9	4	2	0	55
Spain	40	10	7	3	3	0	63
Switzerland	70	13	17	11	5	0	116
Austria	22	5	9	5	2	0	43
Sweden	33	7	10	3	1	0	54
Denmark	15	7	4	2	1	0	29
Norway	14	1	3	2	1	0	21
Finland	25	11	6	3	1	0	46
Ireland	11	6	4	2	1	0	24
Portugal	8	3	2	1	0	0	14
Greece	4	0	1	0	0	0	5
Eastern Europe	11	2	0	0	0	0	13

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-3

European Revenues–Siemens-Nixdorf Customer Services,1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	1290	85	5	80	20	10	1490
France	98	0	0	4	0	0	102
Germany	818	48	5	50	20	6	947
U.K.	66	0	0	3	0	0	69
Italy	61	0	0	4	0	0	65
Netherlands	31	0	0	2	0	0	33
Belgium/Luxembourg	37	11	0	3	0	0	51
Spain	39	6	0	2	0	0	47
Switzerland	28	9	0	3	0	0	40
Austria	34	11	0	3	0	0	48
Sweden	21	0	0	1	0	0	22
Denmark	19	0	0	0	0	0	19
Norway	10	0	0	0	0	0	10
Finland	13	0	0	0	0	0	13
Ireland	9	0	0	0	0	0	9
Portugal	0	0	0	0	0	0	0
Greece	3	0	0	0	0	0	3
Eastern Europe	6	0	0	0	0	0	6

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-4

European Revenues–Bull Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-Mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	695	50	60	60	40	0	900
France	358	13	24	37	26	0	458
Germany	62	12	4	4	6	0	88
U.K.	71	4	10	11	3	0	99
Italy	88	7	4	4	1	0	104
Netherlands	22	3	2	1	1	0	29
Belgium/Luxembourg	19	3	2	1	0	0	25
Spain	24	4	2	1	0	0	31
Switzerland	12	1	2	0	1	0	16
Austria	9	1	1	0	1	0	12
Sweden	10	1	3	0	0	0	14
Denmark	4	1	1	0	0	0	6
Norway	7	0	2	0	1	0	10
Finland	1	0	0	0	0	0	1
Ireland	2	1	0	0	0	0	3
Portugal	3	1	0	0	0	0	4
Greece	3	0	0	0	0	0	3
Eastern Europe	1	0	0	0	0	0	1

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-5

European Revenues–Hewlett-Packard Customer Services,1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	550	70	60	60	85	20	845
France	90	11	10	8	11	3	133
Germany	90	16	14	21	28	5	174
U.K.	145	17	15	12	16	5	210
Italy	55	6	6	5	6	2	80
Netherlands	30	4	3	3	4	1	45
Belgium/Luxembourg	23	3	2	2	3	1	34
Spain	38	5	4	3	6	0	56
Switzerland	23	3	2	2	3	1	34
Austria	12	1	1	1	1	0	16
Sweden	13	2	1	1	2	0	19
Denmark	9	1	1	1	1	0	13
Norway	5	1	1	0	1	0	8
Finland	1	0	0	0	0	0	1
Ireland	9	1	1	1	1	0	13
Portugal	6	1	1	1	1	0	10
Greece	0	0	0	0	0	0	0
Eastern Europe	1	0	0	0	0	0	1

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-6

European Revenues–Olivetti Customer Services,1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	690	70	20	20	30	0	830
France	75	3	1	1	1	0	81
Germany	50	2	1	1	1	0	55
U.K.	70	3	1	1	1	0	76
Italy	345	49	13	14	23	0	444
Netherlands	20	3	1	1	2	0	27
Belgium/Luxembourg	25	2	1	1	1	0	30
Spain	35	1	0	1	1	0	38
Switzerland	10	0	0	0	0	0	10
Austria	4	0	0	0	0	0	4
Sweden	1	1	0	0	0	0	2
Denmark	20	1	0	0	0	0	21
Norway	20	1	0	0	0	0	21
Finland	1	0	0	0	0	0	1
Ireland	1	0	0	0	0	0	1
Portugal	10	0	0	0	0	0	10
Greece	2	0	0	0	0	0	2
Eastern Europe	2	0	0	0	0	0	2

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-7

European Revenues–ICL Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	640	40	90	5	35	10	820
France	63	1	4	0	2	0	70
Germany	41	0	1	0	1	0	43
U.K.	294	38	64	4	17	9	426
Italy	12	0	0	0	1	0	13
Netherlands	19	0	2	0	3	0	24
Belgium/Luxembourg	10	0	1	0	1	0	12
Spain	18	0	1	0	0	0	19
Switzerland	11	0	0	0	0	0	11
Austria	6	0	0	0	0	0	6
Sweden	43	1	4	0	2	0	50
Denmark	21	0	2	0	1	0	24
Norway	21	0	2	0	1	0	24
Finland	66	1	6	0	4	0	77
Ireland	6	0	0	0	0	0	6
Portugal	3	0	0	1	0	0	4
Greece	1	0	0	0	0	0	1
Eastern Europe	5	0	2	0	0	0	7

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-8

European Revenues–Unisys Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	510	80	45	55	35	30	755
France	90	22	5	5	4	4	130
Germany	64	8	7	8	5	5	97
U.K.	115	19	9	10	7	7	167
Italy	30	5	4	4	3	3	49
Netherlands	40	5	2	3	2	2	54
Belgium/Luxembourg	22	4	3	3	2	2	36
Spain	21	3	2	2	1	1	30
Switzerland	38	3	3	3	2	2	51
Austria	22	2	1	2	1	1	29
Sweden	18	2	1	2	1	1	25
Denmark	6	1	1	1	0	0	9
Norway	5	1	1	1	0	0	8
Finland	4	1	0	0	0	0	5
Ireland	8	2	1	1	1	1	14
Portugal	8	1	1	1	1	1	13
Greece	2	0	0	0	0	0	2
Eastern Europe	13	2	3	10	3	2	33

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-9

European Revenues–AT&T Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continiuty Services	Total Customer Services
Total -All Countries	500	35	25	20	105	0	685
France	82	6	4	4	19	0	115
Germany	77	5	4	3	17	0	106
U.K.	88	6	5	6	22	0	127
Italy	31	2	2	1	6	0	42
Netherlands	28	2	1	1	6	0	38
Belgium/Luxembourg	13	1	1	0	3	0	18
Spain	44	3	1	1	4	0	53
Switzerland	67	5	4	2	14	0	92
Austria	10	1	1	0	2	0	14
Sweden	10	1	1	0	2	0	14
Denmark	26	2	1	1	5	0	35
Norway	10	1	1	0	2	0	14
Finland	5	0	0	0	1	0	6
Ireland	5	0	0	0	1	0	6
Portugal	3	0	0	0	1	0	4
Greece	2	0	0	0	0	0	2
Eastern Europe	2	0	0	0	0	0	2

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-10

European Revenues–Getronics Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	140	50	25	15	60	10	300
France	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0
U.K.	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0
Netherlands	119	42	23	11	59	9	263
Belgium/Luxembourg	14	5	3	1	2	1	26
Spain	6	2	1	1	1	0	11
Switzerland	0	0	0	0	0	0	0
Austria	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0
Denmark	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-11

European Revenues–ICG Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	300	0	0	0	0	0	300
France	300	0	0	0	0	0	300
Germany	0	0	0	0	0	0	0
U.K.	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
Belgium/Luxembourg	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0	0
Austria	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0
Denmark	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-12

European Revenues–Wang Customer Services,1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total - All Countries	190	35	20	10	15	0	270
France	45	9	3	2	3	0	62
Germany	30	5	3	1	2	0	41
U.K.	50	11	4	2	3	0	70
Italy	15	2	2	1	1	0	21
Netherlands	9	1	2	1	2	0	15
Belgium/Luxembourg	10	1	1	0	1	0	13
Spain	6	1	2	1	1	0	11
Switzerland	3	0	2	1	2	0	8
Austria	1	0	0	0	0	0	1
Sweden	10	2	1	0	1	0	14
Denmark	4	1	0	0	0	0	5
Norway	4	0	0	0	0	0	4
Finland	1	0	0	0	0	0	1
Ireland	1	0	0	0	0	0	1
Portugal	1	0	0	0	0	0	1
Greece	1	0	0	0	0	0	1
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-13

European Revenues–ComputerVision Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	110	20	50	20	10	5	215
France	17	3	15	4	0	0	39
Germany	21	4	6	4	6	0	41
U.K.	19	4	15	8	3	3	52
Italy	10	2	2	1	0	0	15
Netherlands	4	1	1	0	0	0	6
Belgium/Luxembourg	3	1	1	0	0	0	5
Spain	4	1	1	0	0	0	6
Switzerland	4	1	1	0	0	0	6
Austria	3	1	1	0	0	0	5
Sweden	9	2	2	1	0	0	14
Denmark	4	1	1	0	0	0	6
Norway	6	1	1	1	0	0	9
Finland	5	1	1	0	0	0	7
Ireland	1	0	0	0	0	0	1
Portugal	1	0	0	0	0	0	1
Greece	1	0	0	0	0	0	1
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-14

European Revenues–Rank Xerox Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	180	20	0	0	0	0	200
France	44	6	0	0	0	0	50
Germany	25	3	0	0	0	0	28
U.K.	43	5	0	0	0	0	48
Italy	13	2	0	0	0	0	15
Netherlands	8	1	0	0	0	0	9
Belgium/Luxembourg	4	1	0	0	0	0	5
Spain	11	1	0	0	0	0	12
Switzerland	4	0	0	0	0	0	4
Austria	4	0	0	0	0	0	4
Sweden	4	0	0	0	0	0	4
Denmark	3	0	0	0	0	0	3
Norway	3	0	0	0	0	0	3
Finland	3	0	0	0	0	0	3
Ireland	4	0	0	0	0	0	4
Portugal	2	0	0	0	0	0	2
Greece	1	0	0	0	0	0	1
Eastern Europe	4	0	0	0	0	0	4

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-15

European Revenues–Granada Computer Services Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	180	5	0	0	5	10	200
France	10	0	0	0	0	1	11
Germany	13	0	0	0	0	1	14
U.K.	107	3	0	0	3	7	120
Italy	11	0	0	0	0	1	12
Netherlands	10	0	0	0	0	1	11
Belgium/Luxembourg	7	0	0	0	0	0	7
Spain	11	0	0	0	0	1	12
Switzerland	7	0	0	0	0	0	7
Austria	0	0	0	0	0	0	0
Sweden	4	0	0	0	0	0	4
Denmark	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-16

European Revenues–Oracle Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	0	0	90	100	0	0	190
France	0	0	13	14	0	0	27
Germany	0	0	15	16	0	0	31
U.K.	0	0	29	31	0	0	60
Italy	0	0	5	5	0	0	10
Netherlands	0	0	6	6	0	0	12
Belgium/Luxembourg	0	0	3	3	0	0	6
Spain	0	0	3	4	0	0	7
Switzerland	0	0	3	4	0	0	7
Austria	0	0	2	2	0	0	4
Sweden	0	0	5	5	0	0	10
Denmark	0	0	4	4	0	0	8
Norway	0	0	2	2	0	0	4
Finland	0	0	1	1	0	0	2
Ireland	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-17

European Revenues–Sun Microsystems Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	125	15	25	20	5	0	190
France	22	4	7	5	2	0	40
Germany	22	4	4	4	0	0	34
U.K.	37	3	7	4	2	0	53
Italy	4	1	1	1	0	0	7
Netherlands	7	1	1	0	1	0	10
Belgium/Luxembourg	2	1	0	0	0	0	3
Spain	4	1	1	1	0	0	7
Switzerland	6	0	1	1	0	0	8
Austria	4	0	0	0	0	0	4
Sweden	10	0	3	1	0	0	14
Denmark	3	0	0	0	0	0	3
Norway	2	0	0	0	0	0	2
Finland	1	0	0	0	0	0	1
Ireland	1	0	0	0	0	0	1
Portugal	0	0	0	0	0	0	0
Greece	1	0	0	0	0	0	1
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-18

European Revenues–Amdahl Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	135	2	5	5	20	2	170
France	20	0	1	1	3	0	25
Germany	30	0	1	1	4	1	37
U.K.	47	1	2	2	7	1	60
Italy	7	0	0	0	1	0	8
Netherlands	6	0	0	0	1	0	7
Belgium/Luxembourg	6	0	0	0	1	0	7
Spain	1	0	0	0	0	0	1
Switzerland	4	0	0	0	1	0	5
Austria	2	0	0	0	0	0	2
Sweden	2	0	0	0	0	0	2
Denmark	5	0	0	0	1	0	6
Norway	5	0	0	0	1	0	6
Finland	0	0	0	0	0	0	0
Ireland	2	0	0	0	0	0	2
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-19

European Revenues–Thomainfor Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	140	5	5	0	10	0	160
France	116	3	3	0	9	0	131
Germany	8	0	0	0	1	0	9
U.K.	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
Belgium/Luxembourg	5	0	0	0	0	0	5
Spain	5	0	0	0	0	0	5
Switzerland	3	0	0	0	0	0	3
Austria	4	0	0	0	0	0	4
Sweden	0	0	0	0	0	0	0
Denmark	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit A-20

European Revenues–Memorex Customer Services, 1993 ($ Millions)

Country	Hardware Service	Environ-mental Services	System Software Support	Education and Training	Professional Services	Business Continuity Services	Total Customer Services
Total -All Countries	120	0	0	0	0	0	120
France	24	0	0	0	0	0	24
Germany	30	0	0	0	0	0	30
U.K.	24	0	0	0	0	0	24
Italy	12	0	0	0	0	0	12
Netherlands	5	0	0	0	0	0	5
Belgium/Luxembourg	4	0	0	0	0	0	4
Spain	7	0	0	0	0	0	7
Switzerland	4	0	0	0	0	0	4
Austria	2	0	0	0	0	0	2
Sweden	2	0	0	0	0	0	2
Denmark	2	0	0	0	0	0	2
Norway	1	0	0	0	0	0	1
Finland	1	0	0	0	0	0	1
Ireland	1	0	0	0	0	0	1
Portugal	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0

Source: INPUT

Note: Totals may not add up due to rounding.

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B

Market Forecast Reconciliation

INPUT's forecast for the customer services market in Europe focuses on user expenditure with:

- Customer services vendors, defined as:
  - Equipment vendors
  - Independent Maintenance Organisations (IMOs)
  - Dealers and distributors.
- Other vendors and organisations providing the services defined within the Customer Services sectors included in INPUT's forecasts. These other vendors comprise:
  - Independent software and services vendors
  - Non-industry vendors, principally from the construction and building services sectors.

There are no changes to definitions for the 1994 Customer Services Europe Programme.

The effect of last year's changes on the market sector reconciliations are shown in Exhibit B-1.

Exhibit B-1

Customer Services Market, Forecast Database Reconciliation Europe, 1994-1999 ($ Millions)

	1993 Market				1998 Market				1993	1994
Delivery Mode	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Var. (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Var. (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Equipment Maintenance	14,870	12,700	-2,170	-15	14,070	10,300	-3,770	-27	-1	-4
Environmental Services	7,610	6,710	-900	-12	9,930	8,880	-1,050	-11	5	6
Systems Software Support	1,820	1,520	-300	-16	2,670	1,890	-780	-29	8	4
Education & Training	2,620	2,310	-310	-12	3,430	2,870	-560	-16	6	4
Business Continuity Services	410	360	-50	-12	1,030	765	-265	-26	20	16
Other Professional Services	1,010	915	-95	-9	1,670	1,600	-70	-4	11	12
Total Customer Services	28,340	24,500	-3,840	-14	32,800	26,300	-6,500	-20	3	1

Source: INPUT

Note: Totals may not add up due to rounding.

C

Market Database by Country

This appendix contains growth forecasts for customer services in each country, in U.S. Dollars. The exact equivalents of these exhibits, showing figures in local currency, are contained in Chapter V.

Exhibit C-1

Customer Services Market Forecast, 1994-1999
France

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	2,320	-8	2,140	2,050	1,970	1,830	1,750	1,610	-5
Environmental Services	1,170	6	1,240	1,320	1,410	1,490	1,560	1,640	6
Systems Software Support	200	2	203	208	215	222	239	254	5
Education & Training	568	8	612	634	656	680	714	747	4
Business Continuity Services	63	14	71	80	91	103	119	138	14
Other Professional Services	153	11	169	186	207	227	249	271	10
Total Customer Services	4,470	-1	4,420	4,470	4,540	4,560	4,630	4,660	1

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-2

Customer Services Market Forecast, 1994-1999
Germany

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	2,720	-8	2,510	2,320	2,200	2,100	2,010	1,910	-5
Environmental Services	1,420	5	1,490	1,560	1,630	1,690	1,760	1,830	4
Systems Software Support	339	4	353	362	371	379	388	388	2
Education & Training	609	4	632	661	690	718	747	747	3
Business Continuity Services	69	8	75	80	86	95	106	121	10
Other Professional Services	201	9	218	241	264	293	322	345	10
Total Customer Services	5,360	-2	5,280	5,220	5,240	5,280	5,330	5,340	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-3

Customer Services Market Forecast, 1994-1999
United Kingdom

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	2,280	-5	2,160	2,070	1,970	1,780	1,660	1,520	-7
Environmental Services	1,260	7	1,350	1,420	1,490	1,580	1,660	1,750	5
Systems Software Support	370	12	414	444	473	518	547	584	7
Education & Training	288	3	296	303	303	311	318	325	2
Business Continuity Services	126	24	155	192	229	266	318	355	18
Other Professional Services	178	17	207	237	266	296	325	370	12
Total Customer Services	4,510	2	4,590	4,660	4,730	4,730	4,810	4,880	1

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-4

Customer Services Market Forecast, 1994-1999
Italy

Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
	US $ Million (rounded)								
Equipment Maintenance	1,370	0	1,380	1,360	1,320	1,290	1,230	1,160	-3
Environmental Services	670	5	700	740	770	820	880	940	6
Systems Software Support	140	-2	137	143	155	164	178	187	6
Education & Training	146	6	155	155	158	170	184	199	5
Business Continuity Services	16	11	18	19	18	24	29	34	13
Other Professional Services	64	9	70	76	82	94	105	117	11
Total Customer Services	2,420	2	2,460	2,490	2,510	2,560	2,600	2,640	1

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-5

Customer Services Market Forecast, 1994-1999
Sweden

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	438	0	438	445	449	452	456	455	1
Environmental Services	240	8	258	282	306	330	354	378	8
Systems Software Support	42	0	42	43	46	48	50	53	5
Education & Training	79	3	82	86	94	102	110	116	7
Business Continuity Services	10	13	11	12	13	14	16	18	11
Other Professional Services	36	13	41	47	53	60	68	77	13
Total Customer Services	846	3	870	918	959	1,007	1,055	1,097	5

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-6

Customer Services Market Forecast, 1994-1999
Denmark

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	265	-2	260	248	240	231	217	201	-5
Environmental Services	177	9	192	203	219	234	243	251	5
Systems Software Support	34	0	34	35	35	38	40	41	4
Education & Training	38	4	40	41	43	46	47	49	4
Business Continuity Services	3	22	3	4	5	6	7	9	23
Other Professional Services	27	11	29	34	38	43	47	52	12
Total Customer Services	545	3	560	567	582	597	604	604	2

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-7

Customer Services Market Forecast, 1994-1999
Norway

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	244	-3	237	238	237	233	228	222	-1
Environmental Services	148	0	148	157	165	172	184	192	5
Systems Software Support	27	7	29	31	33	35	39	43	8
Education & Training	47	1	47	50	53	56	59	61	5
Business Continuity Services	7	20	8	9	11	12	15	17	17
Other Professional Services	20	7	21	24	27	29	33	36	11
Total Customer Services	492	0	491	510	524	537	556	571	3

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-8

Customer Services Market Forecast, 1994-1999
Finland

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	178	-4	171	167	160	153	146	140	-4
Environmental Services	101	7	108	118	125	134	143	152	7
Systems Software Support	26	0	26	26	26	28	29	31	4
Education & Training	26	0	26	27	28	29	30	32	4
Business Continuity Services	7	25	9	10	12	14	16	19	17
Other Professional Services	14	13	16	17	19	21	24	28	12
Total Customer Services	353	1	356	365	370	378	389	403	2

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-9

Customer Services Market Forecast, 1994-1999
Netherlands

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	799	-4	768	743	706	676	639	603	-5
Environmental Services	451	9	490	531	570	611	650	691	7
Systems Software Support	98	0	98	95	93	90	88	85	-3
Education & Training	175	6	186	198	211	224	245	278	8
Business Continuity Services	23	22	28	34	39	44	52	62	17
Other Professional Services	90	14	103	119	134	150	170	196	14
Total Customer Services	1,650	2	1,676	1,727	1,753	1,804	1,856	1,907	3

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-10

Customer Services Market Forecast, 1994-1999
Belgium

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	376	-3	365	354	340	324	305	291	-4
Environmental Services	176	6	187	198	208	216	223	231	4
Systems Software Support	53	0	53	55	58	61	64	66	5
Education & Training	66	1	67	68	69	71	73	73	2
Business Continuity Services	6	7	7	7	8	9	11	13	15
Other Professional Services	19	12	21	24	26	29	33	37	12
Total Customer Services	695	1	700	706	708	708	706	711	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-11

Customer Services Market Forecast, 1994-1999
Spain

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	532	-1	526	521	510	495	475	452	-3
Environmental Services	259	9	282	307	332	355	376	395	7
Systems Software Support	50	1	51	53	55	59	62	66	5
Education & Training	59	0	59	59	63	66	70	73	4
Business Continuity Services	4	10	4	4	5	6	7	9	18
Other Professional Services	28	24	35	42	50	58	68	78	18
Total Customer Services	931	3	959	987	1,015	1,043	1,057	1,071	2

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-12

Customer Services Market Forecast, 1994-1999
Switzerland

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	558	0	558	558	554	551	547	536	-1
Environmental Services	396	5	418	439	461	482	504	522	5
Systems Software Support	68	0	68	72	76	79	86	86	5
Education & Training	115	0	115	119	122	130	137	148	5
Business Continuity Services	14	20	17	20	24	27	30	32	13
Other Professional Services	40	13	45	50	55	62	71	82	13
Total Customer Services	1,194	2	1,223	1,259	1,295	1,331	1,374	1,403	3

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-13

Customer Services Market Forecast, 1994-1999
Austria

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	242	-2	237	231	223	214	203	189	-4
Environmental Services	134	7	143	152	161	168	175	178	5
Systems Software Support	33	8	35	36	36	37	38	39	2
Education & Training	34	4	35	37	38	39	39	39	2
Business Continuity Services	4	20	5	6	7	9	12	14	23
Other Professional Services	10	8	11	12	12	13	15	16	9
Total Customer Services	457	2	466	473	478	480	480	475	0

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-14

Customer Services Market Forecast, 1994-1999
Greece

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	34	-7	32	30	28	27	26	25	-5
Environmental Services	3	5	3	3	4	4	4	5	7
Systems Software Support	6	7	6	7	8	8	9	10	10
Education & Training	7	5	7	8	8	8	9	9	6
Business Continuity Services	1	24	1	1	1	1	2	2	25
Other Professional Services	2	12	3	3	3	3	4	5	13
Total Customer Services	53	-2	52	51	52	53	54	56	2

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-15

Customer Services Market Forecast, 1994-1999
Ireland

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	70	-4	68	65	62	59	56	51	-5
Environmental Services	30	5	31	32	34	35	37	37	4
Systems Software Support	14	10	15	15	17	17	17	15	0
Education & Training	13	0	13	13	13	13	14	15	3
Business Continuity Services	5	14	6	6	7	8	9	11	15
Other Professional Services	15	14	18	20	23	25	30	36	15
Total Customer Services	148	2	151	152	155	156	162	166	2

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-16

Customer Services Market Forecast, 1994-1999
Portugal

	US $ Million (rounded)								
Delivery Modes	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	71	2	72	74	75	76	75	76	1
Environmental Services	26	11	28	32	35	39	42	46	10
Systems Software Support	5	11	6	6	7	7	8	8	8
Education & Training	5	13	5	6	6	7	8	8	10
Business Continuity Services	1	20	2	2	2	3	3	3	13
Other Professional Services	4	9	5	5	5	6	7	8	11
Total Customer Services	112	5	117	124	131	139	142	151	5

Source: INPUT

Note: Totals may not add up due to rounding.

Exhibit C-17

Customer Services Market Forecast, 1994-1999
Eastern Europe

Delivery Modes	US $ Million (rounded)								
	1993	93-94 (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Equipment Maintenance	180	8	195	215	235	255	280	295	9
Environmental Services	48	0	48	53	61	72	91	120	20
Systems Software Support	10	0	10	10	9	8	6	4	-17
Education & Training	36	14	41	46	52	60	68	75	13
Business Continuity Services	2	33	2	3	5	10	15	24	64
Other Professional Services	12	17	14	16	19	22	28	34	19
Total Customer Services	290	7	310	340	380	430	490	550	12

Source: INPUT

Note: Totals may not add up due to rounding.

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D

Exchange Rates and Inflation Assumptions

Exhibit D-1 shows the exchange rates used for all of INPUT's European forecasts during 1994.

Exhibit D-2 shows the assumptions of changes in inflation by country that will be incorporated into any new forecasts. All growth forecasts in this report include the inflation figures shown this exhibit.

Exhibit D-1

US Dollar and ECU Exchange Rates 1994

Country	Currency	US Dollar	ECU
Europe	$	1.00	0.89
France	FF	5.9	6.59
Germany	DM	1.74	1.94
United Kingdom	PS	0.676	0.753
Italy	Lira (K)	1.71	1.9
Sweden	Sek	8.34	9.32
Denmark	DK	6.79	7.56
Norway	NK	7.52	8.39
Finland	FM	5.79	6.35
Netherlands	Dfl	1.94	2.17
Belgium	BF	36.15	40.41
Switzerland	SF	1.39	1.65
Austria	Sch	12.19	13.82
Spain	Ptas	142.92	159.3
Ireland	IP	0.71	0.791
Portugal	Esc	176.7	197.1
Greece	Dra	249.35	280
Eastern Europe	$	1	0.89

Source: Financial Times January 1994

Exhibit D-2

Inflation Assumptions 1993 and 1994

Country	Assumption 1993-1998	Assumption 1994-1999	Change
France	2.3	1.9	-0.4
Germany	4	2.9	-1.1
United Kingdom	2	3	1
Italy	3.8	3.2	-0.6
Sweden	2.3	2	-0.3
Denmark	1.6	2.6	1
Norway	2.2	1.5	-0.7
Finland	0.2	2	1.8
Netherlands	1.9	2	0.1
Belgium	3	2.2	-0.8
Switzerland	2.3	1.7	-0.6
Austria	3.8	2.8	-1
Spain	4.5	3.4	-1.1
Portugal	5.8	4.8	-1
Greece	13.2	11.2	-2
Ireland	2.7	3.3	0.6
Eastern Europe	-	-	-
European Average	3.1	2.8	-0.3

Source: OECD December 1993

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