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October, 1993

Dear Colleague:

Attached is the Information Services Market Analysis Program's latest report on the *Business Services Sector.* It provides a current assessment of the events and issues driving this marketplace, and offers INPUT's forecast of the market size for information services for the period 1993-1998.

This report should be filed with INPUT's other *U.S. Information Services Market Analysis Program* reports, behind the tab marked *Business Services.* Your INPUT program binders, together with the delivery mode reports, provide a total assessment of the United States market for information services.

Market Analysis Program industry and cross-industry sector reports are prepared annually, and may be in one of two forms. The expanded report, such as this *Business Services Sector Report*, contain a detailed industry analysis and supporting forecast data. It will typically be 40-50 pages in length. The forecast update will be a short report, providing a new forecast and summary data to support forecast assumptions. It will generally be 15-20 pages in length. Normally, for each industry and cross-industry market segment, full reports will be produced every other year, with summary reports prepared in the intervening years. The intent of this new format is to recognize the value of our clients' time, and provide concise statements of industry activity, supported by rigorous business, technical and competitive analysis, and a five-year industry forecast.

I am certain that you will find the *Business Services Sector* report to be both informative and useful, and welcome any comments that you have on this document, or any of INPUT's publications.

Sincerely,

Bob Goodwin

Robert L. Goodwin
Manager
Information Services Market Analysis Program

Enc.

VERTICAL MARKET ANALYSIS

BUSINESS SERVICES 1993-1998

U.S. Information Services Market Analysis Program

OCTOBER 1993

BUSINESS SERVICES

INFORMATION SERVICES OPPORTUNITIES AND TRENDS

1993-1998

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Business Services

Information Services Opportunities and Trends

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I

Introduction

A
Purpose

The objectives of this forecast update are to:

- Identify the business and technological issues and trends driving the use of information services within the business services sector

- Forecast user expenditures on information services during the next five years for the business services sector

- Discuss the competitive environment and profile-leading vendors in the business services sector

The emphasis is on updating INPUT's 1992 forecasts and forecast assumptions for the business services industry sector and on noting changes in forces impacting this market over the last eight months. The report provides readers with insights and information that will help:

- Review forces shaping the market
- Develop internal corporate financial projections
- Identify new markets and product and services opportunities
- Assess competitive trends
- Determine potential market directions
- Assist in prioritizing investments

B
Sector Definition

The business services sector contains a number of widely varying businesses that provide services for a fee or on a contractual basis, rather than produce tangible goods. Another common characteristic is these businesses are participating in a massive transition in the U.S.—from an industrial to a service-oriented economy. Exhibit I-1 shows the sector components covered in this report.

EXHIBIT I-1

Components of Business Services Sector

SIC	Subsector	No. of Establishments (Thousands)
65	Real Estate	210.5
70	Hotels, Other Lodging Places	50.0
72	Personal Services	181.2
73	Business Services	263.6
75	Automotive Repair, Services, Parking	151.1
76	Miscellaneous Repair Services	62.9
78, 79, 84	Amusement and Recreation, including Motion Pictures and Museums	108.5
81	Legal Services	137.3
83	Social Services	108.5
86	Membership Organizations	219.7
87	Engineering, Accounting, Research Management, and Related Services	189.6
89	Services (not elsewhere classified)	37.5
	Total	1,720.4

Source: *1989 County Business Patterns*

The business services sector includes a broad range of activities. Each of the categories in Exhibit I-1 can be further broken down, as shown in Exhibit II-2.

EXHIBIT I-2

Business Services Sector SIC Groupings

SIC Group	Description
65	Real Estate Operators and Lessors; Real Estate Agents and Managers; Title Abstract Offices; Land Subdividers and Developers
70	Hotels and Motels; Rooming and Boarding Houses; Camps and Recreational Vehicle Parks; Organization Hotels and Lodging Houses on a Membership basis
72	Laundry, Cleaning, and Garment Services; Photographic Studios; Portrait; Beauty Shops; Barber Shops; Shoe Repair and Shoeshine Parlors; Funeral Services; and Miscellaneous Personal Services
73	Advertising, Consumer Credit, and Mercantile Reporting Agencies; Adjustment and Collection Agencies; Mailing; Reproduction; Commercial Art and Photography; Stenographic Services; Services to Dwellings; Miscellaneous Equipment Rental and Leasing; Personnel Supply; Computer Programming; Data Processing and other Computer-Related Services; and Miscellaneous Business Services
75	Automotive Rental and Leasing, Without Drivers; Automobile Parking; Automotive Repair Shops; and other Automotive Services
76	Electrical Repair Shops; Watch, Clock, and Jewelry Repair; Reupholstery and Furniture Repair; and Miscellaneous Repair Shops
78	Motion Picture Production; Distribution and Allied Services; Theaters; and Video Tape Rental
79	Dance Studios, Schools and Halls; Theatrical Producers; Bands, Orchestras, and Entertainers; Bowling Centers; Commercial Sports; and Miscellaneous Amusements and Recreation Sports
81	Legal Services
83	Individual and Family Social Services; Job Training and Vocational Rehabilitation Services; Child Care Services; and Residential Care Services
84	Museums and Art Galleries and Aboreta and Botanical Or Zoological Gardens
86	Businesses Associations; Professional Membership Organizations; Labor Unions and Similar Labor Organizations; Civic, Social, and Fraternal Organizations; Political Organizations; Religious Organizations; and other Membership Organizations
87	Engineering, Architectural, and Surveying Services; Accounting, Auditing, and Bookkeeping Services; Research, Development, and Testing Services; Management and Public Relations Services
89	Services Not Elsewhere Classified

Most of the categories can be further segmented into still smaller categories. There are specific computing services aimed at many of these individual categories. Aptech Computer Systems, for example, makes applications software for golf course and golf resort reservation systems. DHD, Inc. has an applications software product for cemetery management. GTech has a focused processing services business for the gaming industry.

The majority of firms in the business services arena are of the mom-and-pop variety. In legal services, for example, out of tens of thousands of law firms, only 1,500 (fewer than 2%) have 25 or more lawyers, and only 750 firms have 50 lawyers or more. Of the roughly 40,000 firms in the engineering, architectural, and surveying segments, fewer than 100 of them employ over 500 people, and three quarters employ fewer than 20. According to the Architect Institute of America (AIA), 85% of all architectural firms employ fewer than six people.

A fundamental reason for this high degree of fragmentation is services are often produced on the customer's premises or the customer must come to where the service is produced. Thus, the vendor must have a presence in the region where the customers are located. Other factors encouraging fragmentation are the diverse market needs and low market entry barriers.

C
Key Issues

The issues discussed in this report that influence the market for information services in the business services sector include:

- Business services customers are under pressure to control their own costs, and so vendors are obligated to provide services that will be both effective and cost-efficient.

- Service providers are in a dynamic state whereby they must devise innovative product and marketing strategies in order to achieve success in the business services market.

- Business services companies may also be under internal pressure to refine their own operations, with such technologies as client/server computing, in order to more effectively offer products and support to the customer.

- Fluctuations in the U.S. economy can provide opportunities for business services providers from customers who need to reduce their own internal costs. However, some business service segments, such as real estate and hotels, can reduce business service opportunities as the economy shrinks particular markets.

D
Organization

In addition to this introductory chapter, this report contains analyses of the business services market as described below:

- Chapter II, Trends, Events, and Issues, discusses changes, market issues and activities, and competitive factors in the business services sector that have an impact on present and future informations services use in the market.
- Chapter III, Information Services Market Forecast, presents an analysis of information services expenditures for the business services applications market by delivery mode and submode.
- Appendix A, Forecast Data Base, presents a detailed forecast by delivery mode and submode for the business services cross-industry market. A reconciliation of the 1992-1997 forecast is also provided.

E
Methodology

Much of the data this report is based on has been gathered during the first quarter of 1993 as part of INPUT's ongoing market analysis program. Trends, market sizes, and growth rates are based upon INPUT research and in-depth interviews with users in the business services cross-industry market and with the information services vendors serving this market. INPUT maintains ongoing relationships with all users and vendors interviewed and keeps track of these relationships in a data base. Interviewees for the research segment of this report were selected from the INPUT contact data base.

In addition, INPUT made extensive use of its corporate library located in Mountain View, California. The resources of this library include: on-line periodical data bases; subscriptions to a broad range of computer and general business periodicals; continually updated files on over 3,000 information services vendors; and the most up-to-date U.S. Department of Commerce publications on industry issues.

INPUT must note that some vendors may be unwilling or unable to provide detailed revenue breakdowns by delivery mode or industry. Also, vendors often use different categories for industries and industry segments, or may place their services in different delivery modes than the ones INPUT uses. Therefore, INPUT must estimate revenues in these

categories on a best-effort basis. For these reasons, readers must regard the delivery mode and individual segment forecasts as indicators of general patterns and trends rather than as specific, detailed estimates for individual years.

F
Related Reports

Related reports of interest to the reader follow:

- *U.S. Application Solutions Market, 1992-1997*
- *U.S. Systems Software Products Market, 1992-1997*
- *U.S. Professional Services Market, 1992-1997*
- *Systems Integration Trends and Forecasts, 1992-1997*
- *Information Systems Outsourcing Market Opportunities, 1992-1997*
- *U.S. Network Services Market, 1992-1997*
- Information Services industry sector reports, 1992-1997 (15 reports on all major industry sectors)
- *Information Services Cross-Industry Markets, 1992-1997*

II

Trends, Events, and Issues

Due to the diverse nature of the establishments in the services sector, it is very difficult to identify and track common trends. The services these firms provide are myriad; therefore, the issues and requirements have few elements in common with other vertical markets. INPUT has attempted to summarize key business trends that impact most business services firms, as shown in Exhibit II-1. These trends have become evident over the last several years and will continue through the forecast period.

EXHIBIT II-1

Business Services

Key Business Trends

- Irregular productivity improvements
- Cost-control pressure
- Innovative marketing of services
- Delivery of new types of services
- Economic fluctuations

The transition from an industrial to a service-oriented economy continues in the U.S. Companies continue to focus on strategic areas that contribute to the bottom-line profitability of the firm. As more companies cut back on their nonstrategically focused departments, the demand increases for providers of outside business services.

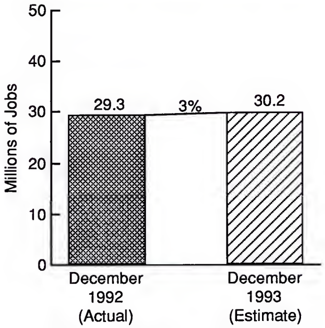
Services firms, in general, are less sensitive than nonservices firms to economic conditions because they lack heavy fixed costs. As the economy contracts, the purchase of external business services, rather than the creation of an internal cost infrastructure, is viewed as a way to contain costs.

The U.S. Labor Department estimates that the business services sector will add an additional 900,000 jobs by December 1993, a 3% increase over the same month in 1992. Currently, the business services sector accounts for approximately 29.8 million American jobs. Exhibit II-2 presents the business services job growth figures projected for the end of 1993.

EXHIBIT II-2

Business Services

Estimated Job Growth, 1992-1993



Source: U.S. Labor Department

However, this sector is prey to certain negative economic effects, which include the following:

- The transaction-based buying and selling firms (real-estate brokers and agents and credit-reporting agencies) will see a slowing demand for their services as the number of transactions decrease.

- Caution is also advised for the smaller services firms since, as the economy contracts, so may their customer base.

- The recession is causing an economic retrenchment for the lodging industry in general. Hotel construction is down compared with the 1980s.

Productivity is difficult to measure in the services market, and problems have been seen in some areas of the services market, such as repair garages and health clubs and recreation facilities. The rapid growth of new brands and products helps explain some of the poor productivity performance of the repair industry. More makes of imported cars mean specialized repair shops. Hotel, exercise, and recreation activities have all added services and increased training for personnel. Complexity has led to increasing costs and pressures on margins.

Profitability remains as important in the business services sector as in other industry sectors. Firms are still seeking more direct and innovative ways to market services and are grappling with questions, such as what they can do to improve marketing strategies and distinguish themselves from the competition. Currently, companies such as Warner Communications, IBM, AT&T are grappling with how to most effectively market multimedia technology to the consumer services segment of business services. Profitability has also driven companies like Sprint Corporation toward client/server technology as a means of changing their internal business processes in order to offer better service to their customers.

The hotel market is examining the benefits of gathering and analyzing information on their customers so as to tailor services to both increase the number of new customers and encourage repeat business. During 1993, Holiday Inn Worldwide entered into a three-year contract with British Telecommunications (BT) PLC for its Global Network Services (GNS). BT will provide the hotel chain with a customized, managed network on GNS that will link Holiday Inn's nearly 1,700 hotels worldwide to a central data center containing reservation systems and detailed customer information. The Ritz-Carlton Hotel chain maintains a data base of 240,000 guests that details guest room and amenity preferences.

Hotels are also looking for new sources of revenue through various additional in-room amenities. LodgeNet Entertainment Corporation has plans to offer interactive video games through the pay television systems it provides to hotels and motels in the U.S.

As in the transportation area, reservation systems for the hotel industry are an important way of getting and keeping customers by providing services. For example:

- Club Med is developing an enhanced reservation system for its 250 resorts that will gather information on their clients, as well as make the reservations. This information will be used to better provide and market new services to the existing customer base.

- La Quinta Motor Inns, Inc. has expanded its reservation operations using Aspect Telecommunications Corporation's Remote StaffCenter automatic call distribution product. The hotel chain used StaffCenter to establish remote reservation facilities without substantially increasing overhead costs.

- ITT Sheraton Group is also developing a $14 million system to link 450 hotels. The property reservation system will strive to provide better and more personalized service based on the known personal preferences of repeat guests.

There is also a change in focus for law firms taking place at this time. Traditionally, law firms have focused on traditional labor law, real-estate development cases, and consulting for venture capital financing. The hot spots for lawyers continue to be environmental law, bankruptcy, corporate reorganization, and telecommunications.

There has been increasing pressure on law firms and legal services organizations to implement information technology and thereby move further into the 20th century. Although few standards have been established, companies like Smith Bernal Co. have introduced PC-based products that are accelerating IT usage in legal practice. The company's Livenote product utilizes local-area network (LAN) technology to provide live transcriptions of trial proceedings on PCs distributed in a courtroom as a trial occurs. Stenograph Legal Services markets DiscoveryVideo, a PC-based multimedia system for legal research concerning court proceedings or pretrial depositions.

Many of the business services subsegments provide services that are difficult to differentiate. Enhanced service differentiation and, therefore, potentially higher profit margins, may be achievable by increasing the added value of the business. For example, some accounting firms are offering electronic submission of income tax documents to speed tax return processing and refunds to consumers. Other accounting firms offer short-term loans to cover the cost of income tax payments.

Service providers—like companies in all industries—are looking to information services and technology to boost profits or at least minimize losses. Economic instabilities caused by off-shore migrations, the continuing U.S. trade deficit, and a mercurial faith in the Clinton Administration have caused business service providers to improve their own business processes to remain more competitive. Automatic Data Processing, Inc.'s Automotive Claims Services Group provides claims adjusters with notebook PCs connected through wireless telecommunications networks to a mainframe-based auto repair estimating application. The system allows adjusters to download inventory and pricing information, and thereby serve customers more quickly.

Information services that help to achieve the objectives of increasing operating efficiencies, fine-tuning operations, and making marketing more innovative are positively influenced by the trends and issues impacting services.

Improved service, as a whole, particularly the ability to respond to requests for information before and during the sale, and for service during and after the sale, is a key business trend today. The trend is fueled to some extent by the general shift toward service as a product and the overall movement toward a service economy. As a result, information services that enhance availability of—and access to—information will experience healthy growth.

On the down side, information systems (IS) purchase decisions are taking longer, and more stringent justifications are required. IS purchases are being made more on a replacement basis, rather than by a great number of first-time buyers. Decisions are being made using cost savings as a major consideration.

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III

Information Services Market Forecast

INPUT has adjusted its 1993 forecast from the previous year to reflect user expenditures that were slightly lower than predicted in 1992. Information in this chapter draws on the trends, events, and issues presented in Chapter II. Section A, Overview, discusses the overall size and growth of user expenditures. Section B, Delivery Mode Analysis, provides discussions of factors affecting each mode on an individual basis.

A
Overview

The pressure to operate more efficiently continues to fuel growth in the business services market. As more powerful hardware and software make it possible to automate businesses at lower and lower costs, penetration of smaller services firms will continue.

As many of the largest services subsectors rely on providing expertise on demand, information services that enhance easy access to information will continue to grow rapidly. Information services products and services that keep the market research people in touch with their markets and close to the needs of their clients are extremely important to the continued success and focus of many companies. Thus, although needs are not sharply focused, there are continuing demands for networks and on-line data bases.

The lack of technical expertise in many business services firms and the fragmented nature of the markets make it difficult to market services to these firms. The situation implies a time-consuming marketing and sales approach, one that requires a great deal of promotion, education, and training. Only the larger and more substantial service providers truly have the ongoing resources to devise new product and marketing strategies.

Even the largest subsectors present few large-scale opportunities. The larger customers in each business services market have already established IS purchasing patterns, and information services requirements are being met at least on some level in all IS categories. Because the business

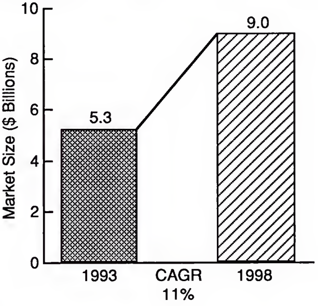
services sector, as a whole, has not been as progressive in adopting technology, any fundamental changes in products, services, and IS expenditures will be slower to evolve than for product-oriented industry sectors. In some sectors (Big-Six accounting firms, large engineering companies) the capabilities exist for in-house management of major projects, which will lessen the size of the IS market.

INPUT forecasts a 11% compound annual growth rate (CAGR) for the business services sector from 1993 to 1998. The forecast, provided in Exhibit III-1, reflects growth rates generally comparable to those in 1992, but at lower actual expenditures. Processing services and turnkey systems, for example, are predicted to maintain consistent growth, but at lower expenditure levels. INPUT's view of the market has remained fairly stable, and the basic assumptions made in the 1992 report have changed little.

EXHIBIT III-1

Business Services

Information Services Market, 1993-1998



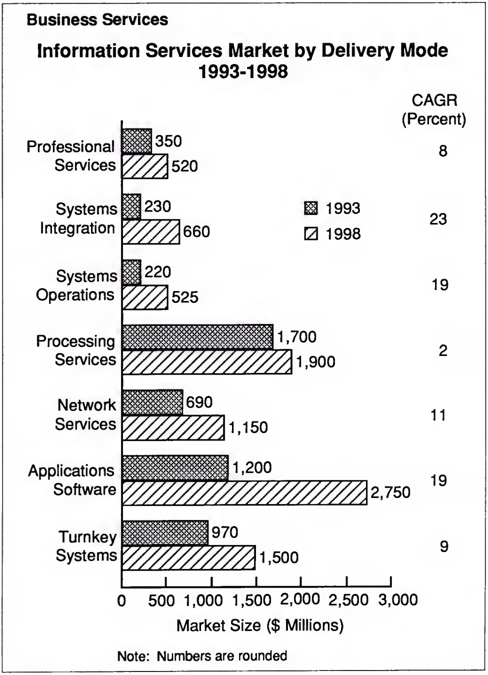
The forecast reflects increased expenditures on overall minicomputer- and workstation/PC-based applications software products than reported last year, while it shows a lower level of mainframe applications expenditures.

B

Delivery Mode Analysis

Exhibit III-2 provides forecasts of user expenditures by delivery mode. Small businesses are less likely to purchase systems operations, systems integration, and professional services; because the business services sector is composed predominantly of small businesses, expenditures on these delivery modes are low compared to turnkey systems, applications software products, and network services.

EXHIBIT III-2



The fastest growing delivery modes, nonetheless, are systems operations and systems integration. One reason for the high growth is that these delivery modes start from a relatively small expenditure base, which can also include bundled applications software and network services.

Processing services will remain the largest delivery mode in the market, although by 1998, expenditures on applications software products are expected to surpass the demand for processing services.

1. Applications Software Products

The applications software products market remains strong, with growth from $1,180 million in 1993 to $2,770 million in 1998, a compound annual growth rate of 19%, as Exhibit III-2 shows. This growth will more than double expenditures by 1998.

Over 60% of expenditures are for PC and workstation-based applications software products. Minicomputer- and mainframe-based software growth is expected to generally decline as companies transition to networked PCs. By 1998, the market for workstation/PC-based products is expected to be over four times the market for mainframe- and minicomputer-based products combined.

2. Processing Services

The business services sector is one of the largest users of processing services of all of the industries examined by INPUT. Yet, for their large base of processing services expenditures, business services is one of the slowest growth industry sectors.

The largest single subsector using processing services is accounting firms—for tax preparation. This market continues to remain strong although it is feeling erosion from increasing purchases of inexpensive PC-based tax preparation software.

Even small companies that a few years ago were purchasing processing services now prefer to purchase PC-based applications software products. To bolster sales, processing services firms have expanded their provision of remote transaction processing and printing services, thereby allowing customers to have more control over their own data entry and printout. These remote services may have slowed some of the erosion of expenditures on processing services.

3. Network Services

Network services will account for approximately 16% of the total 1993 business services forecast for 1993. Network services is expected to have an overall growth rate of about 11%, with network applications subsector

higher at 19% growth over the next five years. Network services expenditures are expected to be approximately $1.15 billion by 1998. This forecasted CAGR is four points lower than INPUT's 1992 forecast.

The majority of network services expenditures is for electronic information services, as opposed to network applications such as electronic data interchange (EDI) and commercial electronic mail. Many of the business-oriented services firms, particularly accounting and law offices, require constant access to information. Data bases and directories that best lend themselves to on-line distribution require frequent updating and other services involving transactions. Alternative in-house paper-based systems are more costly and, in many cases, literally impossible to maintain.

New variations and specialized information that suit the fragmented nature of the business services sector will become increasingly available and fuel growth for this delivery mode. Many information providers now offer data base information on CD-ROMs. This will limit growth in the network services data base area.

4. Professional Services

The 1993 forecast for professional services for the business services sector has increased from the 1992 forecast, growing from a 7% to an 8% CAGR. Many of the market trends that fuel the growth in expenditures for professional services will continue over the next few years. These trends include the following:

- Companies like Andersen Consulting and Electronic Data Systems continue to seek and derive profit from business services consulting, which is still a viable submarket.

- Software development will continue fulfilling a need for the multitude of business services companies that provide specific and specialized services, such as museums, galleries, and funeral services.

5. Systems Integration

Even though the CAGR is 23%, the relatively low starting base of $230 million in 1993 will only increase to $660 million in 1998. Systems integration (SI) represents one of the smallest categories of the business services information services market. Forecasted growth represents prospects in business services for specialized software development, most likely workstation-based software. The communications hardware component is comparatively larger because of strong network interest. The professional services component, as the largest subsector, represents the umbrella, under which many SI services are offered.

Systems integration expenditures typically represent large contracts only. INPUT assumes that only the large business services companies will use systems integrators over the forecast period.

6. Turnkey Systems

Turnkey systems are small businesses' answer to systems operation and systems integration needs. Expenditures on this delivery mode are forecast to grow steadily at 9% compounded annually. The highest growth will be in the professional services and system and applications software products' content of turnkey systems.

The primary growth promoter is that the business services sector will continue to be dominated by small businesses, which essentially views turnkey systems as a form of off-the-shelf product offering. The slightly decreasing hardware content of a turnkey system continues to be a growth inhibitor.

7. Systems Operations

Systems operations, a relatively newer mode of service in business services, will grow at a CAGR of 19% between 1993 and 1998 from a small base of $220 million to $525 million in 1998.

The less complex IS needs of smaller firms that populate the business services sector imply less need for systems operations or other outsourced technology services.

Management of computer/communications operations by third parties continues to be a major IS industry trend overall in the 1990s. However, recent economic troubles faced by many firms have inclined them toward developing their own internal, often client/server-based computing systems as a strategic and economical measure. Even notable exceptions from past forecasts, such as hotel chains and large entertainment and amusement businesses, are concentrating on their core business technology in order to cost effectively re-engineer their own systems with outside help, rather than rely totally on outsourced solutions. Additionally, the trend toward client/server computing solutions will cause a substantial increase in the desktop services submode, while growth in platform operations growth slows as mainframe technology gets supplanted.

A

Forecast Data Base and Reconciliation

INPUT has increased its overall forecast slightly for this report. Exhibit A-1 presents INPUT's business services cross-industry sector user expenditure forecast for 1993-1998. Exhibit A-2 presents a reconciliation of the 1992-1997 forecast.

EXHIBIT A-1

Business Services

User Expenditure Forecast by Delivery Mode, 1992-1998 ($ Millions)

Delivery Modes	1992 ($M)	Growth 92-93 (%)	1993 ($M)	1994 ($M)	1995 ($M)	1996 ($M)	1997 ($M)	1998 ($M)	CAGR 93-98 (%)
Sector Total	4,932	9	5,366	8,877	6,471	7,180	8,030	9,014	11
Professional Services	326	7	350	376	408	441	477	517	8
- IS Consulting	85	12	95	106	119	133	149	167	9
- Education & Training	46	7	49	52	57	62	68	74	9
- Software Development	195	6	206	218	232	246	260	276	6
Systems Integration	186	24	231	291	353	434	535	656	23
- Equipment	45	24	56	74	85	105	130	155	23
- Software Products	24	21	29	36	45	55	69	85	24
- Professional Services	107	24	133	164	203	251	310	384	24
- Other	10	30	13	17	20	23	26	29	17
Systems Operations	181	20	218	262	319	380	454	525	19
- Platform Operations	51	14	58	65	74	83	95	102	12
- Applications Operations	89	22	109	133	162	191	225	265	19
- Desktop Services	19	32	25	33	45	60	77	90	29
- Network Management	22	18	26	31	38	46	57	68	21
Processing Services	1,695	2	1,730	1,762	1,794	1,828	1,862	1,891	2
- Transaction Processing	1,695	2	1,730	1,762	1,794	1,828	1,862	1,891	2
Network Services	633	8	685	740	801	887	1,003	1,148	11
- Electronic Info. Svcs.	615	8	665	715	770	850	960	1,100	11
- Network Applications	18	11	20	25	31	37	43	48	19
Applications Software Products	1,021	16	1,182	1,387	1,638	1,947	2,319	2,771	19
- Mainframe	117	2	119	121	123	125	127	129	2
- Minicomputer	234	9	255	276	296	317	341	367	8
- Workstation/PC	670	21	808	990	1,219	1,505	1,851	2,275	23
Turnkey Systems	890	9	970	1,059	1,158	1,263	1,380	1,506	9
- Equipment	305	7	325	354	387	421	460	500	9
- Software Products	295	9	322	348	377	408	441	477	8
· Applications Software	200	11	221	240	261	284	308	335	9
· Systems Software	95	6	101	108	116	124	133	142	7
- Professional Services	290	11	323	357	394	434	479	529	10

EXHIBIT A-2

Business Services

1993 MAP Data Base Reconciliation ($ Millions)

Delivery Modes	1992 Market				1997 Market				92-97 CAGR per data '92 Rpt (%)	92-97 CAGR per data '93 Rpt (%)
	1992 Report (Fcst) ($M)	1993 Report (Actual) ($M)	Variance from 1992 Report ($M)	Variance from 1992 Report (%)	1992 Report (Fcst) ($M)	1993 Report (Fcst) ($M)	Variance from 1992 Report ($M)	Variance from 1992 Report (%)		
Total Sector	4,946	4,930	-16	0	8,004	8,030	26	0	16	16
Professional Services	326	326	0	0	465	477	12	3	15	16
Systems Integration	188	186	-2	-1	543	535	-8	-1	21	22
Systems Operations	180	179	-1	-1	455	454	-1	0	13	14
Processing Services	1,722	1,695	-27	-2	1,860	1,862	2	0	15	15
Network Services	628	633	5	1	1,275	1,003	-272	-21	19	20
Applications Software	1,017	1,021	4	0	2,060	2,319	259	13	20	20
Turnkey Systems	885	890	5	1	1,346	1,380	34	3	12	13

Overall, the differences between the 1992 and 1993 forecasts reflects a continuing conservatism on the part of business services users to spend on information technology. The U.S. economy continues to be a concern for users, who are hedging their resources against damaging fluctuations in their particular industries. Notable examples include the hotel and motel sector, and the real estate sector.

The percentage differences in the 1997 forecasts for systems operations and network services are reflections of this spending conservatism. Although the systems operations segment will continue modest growth, INPUT overstated its future growth based upon a strong SO market in 1991 and early 1992. Systems operations will become less important as more business services companies opt for distributed, in-house computing environments.

Although there is growing demand for network services, particularly electronic information services, the expenditures for this delivery mode have been scaled down to reflect the users' fiscal wariness. Nevertheless, network services will continue to experience double-digit growth as on-line, industry-specific data bases become more utilized.

As for the 13% discrepancy in 1997 for applications software, INPUT believes the small size of the average business services company will drive the demand for workstation- and PC-based software solutions more quickly than previously predicted. In addition, PC-based local area network (LAN) systems have gained more popularity in the real estate and legal sectors, for example, further driving demand for applications in this area.

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  - Forecasts
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