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Information Services: A Vital Link in the IT Industry

Kenneth L. Kraemer and Jason Dedrick

Information services as vital link

There is common thread that links Compaq's recent acquisition of Digital Equipment Corporation (DEC); the resurgence of IBM; the rise of Unisys from the ash heap of the computer industry; Computer Associates' recent buyout offer for Computer Sciences Corporation (CSC); and the personal wealth of Ross Perot, the Texas billionaire who ran for president in 1992 (when he won nearly 20% of the popular vote) and 1996.

The link is the information services industry. Traditionally a rather stodgy and dull industry segment, information services has lately become hot, enabling traditional mainframe makers to diversify and survive, fostering multibillion dollar mergers and acquisitions and, of course, giving Perot the means to mount his legendary Presidential campaigns.

Why is information services now more exciting? The simple answer is that the mindboggling technology turned out in Silicon Valley and Redmond does not run itself. A lot of companies can't figure out how to make it work to solve their business problems. Executives seem to know that high-tech is by definition non-self-explanatory. The solution is often to call in outside experts, who help develop and run their information systems, letting company managers concentrate on whatever their underlying business is: making cars, selling insurance, etc.

Definition of information services

The information services industry is usually defined to include custom programming; systems integration; outsourcing; maintenance; and network services. Its purveyors range from small companies that design web pages to giant outsourcing companies that can virtually take over and run a client's computer systems on a moment's notice, a worldwide basis or both.

Given the wide range of technologies to choose from, and the number of business processes that they support, it is nearly impossible for all but the very largest companies to develop the necessary capabilities in-house. So most big companies, and even many small ones, turn to outside vendors to complement the efforts of their own management information systems (MIS) personnel.

Outsourcing

The trend toward outsourcing information functions has resulted in rapid growth in this sector of the computer industry. From 1985-1995, the world market for information services rose at an annual rate of 20.9%, compared to 18.5% for hardware and 15.9% for software, according to McKinsey & Co., a leading consulting market analyst and itself a player in the profession. The fastest growing markets have been for professional and processing services (system integration, network services and outsourcing).

Perhaps the biggest winner of all has been IBM, whose share of the information services market grew from 11.1% in 1990 to 14.1% in 1995. IBM's Global Services Division earned \$25.7 billion in revenues in 1997, making it the biggest division in the corporation. While the rest of the company saw stagnant sales, IBM's information services business has grown at over 30% annually during the 1990s, powering a comeback from its dark, depressed performance in the early 1990s.

Against that onslaught, competitors like EDS, Andersen Consulting and Computer Sciences all lost market share. But despite its stumbling, EDS is still a larger company than Microsoft, topping the latter in revenues in 1995, earning nearly \$1 billion in profits. CSC, which has also seen its growth slow the past few years, nonetheless was attractive enough early this year to elicit (and repel) a nearly \$10 billion bid from Computer Associates, which clearly saw the value of CSC's huge pool of consulting professionals. Meanwhile, having acquired DEC earlier this year, Compaq is betting that having the industry's largest pool of Windows NT service professionals will give it the resources it needs to compete with IBM and Hewlett-Packard, another manufacturer turned consultant, in the corporate market. Even Dell Computer is now promoting itself as "the PC outsourcing company" rather than just a PC maker, and offers a range of services to support its PC customers. The industry is likely to undergo further restructuring and shakeout as companies previously emphasizing hardware look to enter new markets and develop the full-service capabilities their customers want.

Future for information services

Is the future for information services as rosy as those companies hope? All the evidence points to continued growth. The trend of U.S. companies to focus on their core businesses and outsource information functions will provide plenty of opportunities for the services industry. Outside the U.S., the European market is already large. U.S. companies already have a strong position in Europe. Economic unification could help larger U.S. and European service providers compete with local companies who have focused on their domestic markets.

Emerging markets

Demand in emerging markets

In Mexico alone, the information services market is estimated to be over \$1 billion and is becoming the leading growth segment of the market. In recent years, there has been a trend toward using systems integrators, as large corporations look to consolidate their IT functions and deal with one service provider. The trend toward emphasizing services accelerated after the Peso crisis in 1994, as companies cut back on new IT investment and looked for ways to get more value out of the hardware and software they had already purchased.

In the past year or two, companies have been moving to outsource IT functions. The financial crisis led Mexican companies to reconsider "who they are and where they want to be" in the words of one industry executive. Companies want to use their own resources better. Outsourcing gives them that option, allowing them to focus on their core business functions. The leading services providers in Mexico are IBM, HP, GTE, and General Electric Information Systems (GEIS), and a local company, Softec. Softec has also developed a growing business in custom programming for both the Mexican and U.S. market (e.g. Year 2000 jobs).

Asian financial crisis fueling demand

On the other side of the world, the Asian financial crisis could similarly create opportunities for information services companies in a market that so far has been slow to develop. Historically, Asian companies have preferred either to keep their computer operations in-house or turn to familiar local vendors for support. Asian companies in general are loathe to pay for services. Indeed, they're often downright mistrustful of outside vendors and unwilling to allow them access to their internal operations.

The financial crisis could change this dramatically. First of all, in the aftermath of the crisis, many Asian companies, particularly financial institutions, are likely to be bought out by American companies. Those companies will turn to the big U.S. information services providers to modernize the computer systems of the companies they acquire. Then, local companies who must compete with these newly foreign-owned

operations will be under pressure to adopt comparable systems, and will be wise to turn to the same vendors.

Finally, in the hardest-hit Asian countries, such as Korea, Thailand and Indonesia, there will be shift toward the U.S. economic and management model. Companies will seek to offer greater transparency in financial markets, and larger conglomerates will slim down and focus on investment in information technology as a productivity tool. These trends should lead to rapid growth in the information services market, benefiting service providers that have already established a presence in these markets, or those that can quickly catch up.

Japan and China wild cards

The wild cards in Asia in the long run will be Japan and China. Japan has well-established information services companies, mostly subsidiaries of large hardware makers such as Fujitsu and NEC and of major users such as Nippon Steel, Nomura Research Institute and NTT. These companies have locked in long-term relationships with customers committed to their proprietary platforms, and/or members of their own *keiretsu*, or business group.

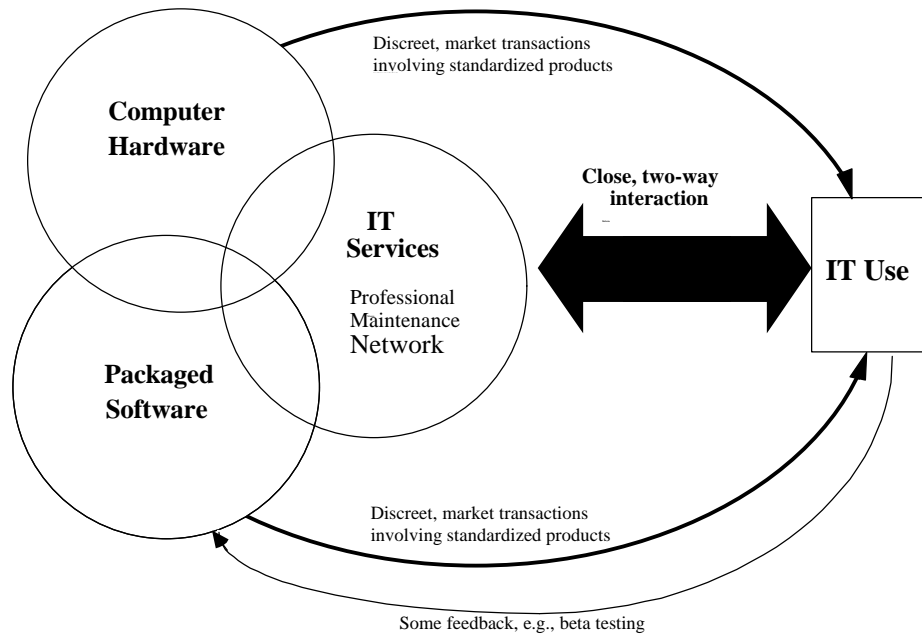
But the trend toward decentralized, PC-based computing is finally catching on in Japanese corporations, and Japanese service providers are poorly prepared to support client-server systems, to say nothing of Internet-based systems. U.S. companies already have taken over a majority of the Japanese PC software market, and have done well in some services markets. IBM, Oracle and Andersen Consulting have a strong presence in Japan; other companies such as EDS and CSC have been less successful. The shift in technology trends, combined with the awareness that Japan is still years behind the U.S. in applying information technologies, could lead to a rapid expansion of the Japanese services market and create openings for new companies itching to get into the game.

China is an even more difficult and longer-term proposition for service providers. The Asian crisis has had a limited effect on China, and could actually lead the Chinese government to keep its financial markets closed, if it concludes that a too-rapid liberalization was the downfall of its neighbors. Chinese companies certainly fit the profile of being reluctant to pay for services and not trusting outsiders, and the lack of intellectual property protection makes China a scary market for any IT company. Still, China will need to liberalize and open up because it wants to join the World Trade Organization. And it needs to modernize its state-owned banks and businesses to sustain its high growth rates. To do so will require investments in, and effective use of, information technology. China has the technically skilled people to support such use, but it lacks people and companies with the knowledge and experience to apply the technology to solve business problems. Thus, it, too, will eventually look to the outside. In China, there will be significant longer-term opportunities for services companies to tap into a large potential market.

The bottom line

To sum up, the information services industry is a quiet and often overlooked part of the computer industry, but it is moving into the spotlight as companies look for help in achieving real payoffs from their investments in ever more powerful technologies. The industry is situated at a critical position in the market, serving as a key link between producers and users of information technologies (see Figure 1). It is an industry that has historically been fragmented, with very few global competitors, and with most country markets dominated by local providers. This is likely to change as big users standardize their operations and develop systems to support truly global business structures.

Figure 1. Information Services as Link Between Production and Use



As of now, the company best positioned to exploit new global opportunities is IBM, whose long experience and entrenched position in international markets gives it an edge over most other companies in the industry. But, in the next few years, a major restructuring of the industry is likely, as big players look to move into new markets, smaller players merge to achieve a fuller range of capabilities, and companies from the PC and software industries try to develop the means to provide additional value to their customers beyond nominal technical support of generic desktop users.