



Kodak was the model vertically integrated firm. It made everything itself. At Kodak Park, the Rochester manufacturing facility itself the size of the island of Manhattan, box cars of raw materials entered at one end and packaged film rolled out the other. This ingrained self-sufficiency was borne of hardship. In 1920, Eastman had a large shipment of film spoil from bad gelatin. After recalling all the bad film from his customers and replacing it, Eastman vowed that from then on he would "control the alternatives." As a quality measure, Kodak started manufacturing gelatin, paper, silver halide and just about anything else basic to its business.

In the early 1980's, Japan's increasing presence in the film business and the growth of private label film from 3M and Agfa had eroded Kodak's position as a monopoly, shaving ten percent off its market share. Kodak was caught competing on quality and brand name loyalty just as competitors had narrowed the quality gap and the consumer marketplace was moving to value pricing. Cornelius Murphy, Kodak's Senior V.P. for World Wide Manufacturing in 1982-1986, undertook to investigate the situation.

Finding that Kodak worked under a 14-18% cost disadvantage relative to Fuji and Konica, his main Japanese competitors, Murphy took twin tacks. He "focused" his plants by reducing film emulsion types, for example, from 200 in a plant in France to only five, thereby increasing volumes. He also attacked "low value add" activities like the in-house carpenters, masons, cleaning crews, cafeteria workers etc. and outsourced all of them. That combination cut the gap in half. In 1986, when Murphy moved to take over Kodak's distribution, market research, procurement, and information systems, he brought to his new job a positive view of outsourcing. His choice of staffing would reflect that interest and prove central for the eventual decision to outsource Kodak's I/S activities.

Henry G. Pfendt, Alan E. Cummins and Katherine M. Hudson all xxxx

At Murphy's request, Henry Pfendt, the Director of Information Technology Management, initiated a study of I/T cost structure. Pfendt brought in Professor Russell Ackoff from the University of Pennsylvania to help with what was termed an "idealized business redesign of the I/T value chain", basically a "what if" look at the I/T function unhampered by real world constraints. Ackoff was a strong believer in a broadly participative problem solving method.

Over 250 I/S employees were consulted by the task force, along with key I/S internal customers, in preparing a vision of what they wanted their organization to become.

The three month study had two significant recommendations. First, integrate computing services with telecommunications. Secondly, consolidate the 1300 I/S employees and the 3 major data centers in Rochester that reported to Pfendt into a single new facility to handle the expected growth in the business and reap the efficiencies of common standards and economies of scale. At the time, Kodak was inefficiently running 13 disjointed SNA data communications networks and 70 different CICS transaction data base images, each requiring separate and expensive programming maintenance efforts.

Kodak expected xxx Ideally, Kodak wanted to have an integrated I/T infrastructure that could seamlessly manage a global enterprise. But the team concluded that because of the fragmented manner by which I/T was managed by corporate function and geography, that

Kodak I/T lacked a compelling long-term global unity or strategic direction.

Pfendt broke the this problem into five areas: mainframe computing, mid-range computing, telecommunications, personal computer operations, and application development. Spending over \$5 million working with Dallas-based, Electronic Data Systems (EDS) for the mainframe and telecom areas and many other vendors (free) in the other three areas, he compiled a strategic assessment of Kodak's I/T prospects. These new studies indicated that Kodak was in "reasonable shape, not in a crisis, but had major areas for improvement". They recommended migration to a new technology base; increased labor productivity; better leveraging of the company's buying power, on a world-wide basis; and a centralized systems support infrastructure. At this point it became clear that running "glass houses", internal phone companies, or PC support centers was part of Kodak's core business.

In January of 1988, Murphy put Kathy Hudson in place as Kodak's first corporate-wide CIO. Her mandate was to consolidate I/T worldwide and take cost out of the equation of delivering quality services. A dynamic, energetic leader, as one of her colleagues put it: "if you look up *change agent* in the dictionary, you'll find her picture there." November 16th, 1988, Pfendt presented to Hudson his recommendations for what he termed "Partnership Innovation Process" (PIP) towards establishing and managing strategic technology alliances. PIP was to be more than writing up a spec and contracting to the lowest bidder. She bought off on the idea of value-added partnerships as superior to internal operations or straight contracting, sold it to management and her report staff and drove it to fruition. Wired into the Kodak power structure, she was the spark as well as the catalyst for Kodak's move.

For Hudson, strategic partnering was appropriate for both theoretical and practical reasons. She was a believer in the "vertical disintegration" theory of University of Chicago Professor George Steigler. Steigler, a Nobel Laureate, believed that as markets expanded, economies of scale diminish, and that companies ought to let specialized companies handle certain corporate functions. Secondly, Hudson claims to have felt guilt for getting a \$25 million capital allocation for data center consolidation when the company might better use the funds for its core business, like building film manufacturing capacity in the People's Republic of China.

## **Starting the Process**

Hudson did not come up from running a data center and had none of the vested interest baggage of a traditional I/T manager. She had previously headed litigation, run Kodak's instant photography division, and before that, directed shareholder relations. Even when the plan to bid out I/T service was criticized and ridiculed within Kodak, Hudson stayed clear and unambivalent on the business case and unwaveringly steered the process forward.

Hudson set up three partnering initiatives: "Micro-Buddy" for PC support operations, "MIPS

Factory" for mainframe operations, and "Telstar" for running the voice, data, radio dispatch, and video teleconferencing networks. They did not attempt to find PIP alliances for mid range computing or, most importantly, applications development.

Overall, Hudson and Pfendt identified four sets of "interests" they wanted to be fulfilled by any prospective technology alliance.

- Shareholder Value - Achieve financial benefits through staff level cuts and off-balance sheet financing. This goal was the locomotive that pulled the deals forward. Kodak moved 700 people to its I/T partners, dropping over \$35 million in salaries, and lowered its I/T capital budget from \$40 million to \$5 million a year. They did not, for New York sales tax reasons, initially sell their equipment directly to their partners, only transferred the operations.
- Productivity - Aim for a for "quantum" level of improvement from partnering with a world-class technology company. This meant significant service level improvements coupled with service cost reductions. Pfendt and Hudson knew that at least two-thirds of the gains would come just from the consolidation of data centers.
- Quality of Worklife - Insure employees transferred to the outsourcing provider would keep salaries and benefits, and gain a broader career path. This was important to get employee cooperation and turned out to have a significant impact on vendor selection.
- Positioning for the Future - Allow internal I/S to focus on high added value work and enable it to benefit from beta testing and increased upstream input of requirements to vendors. This goal has yet to be met.

### **Meanwhile, Back at IBM**

In the winter of 1988, at the same time Pfendt was pitching to Hudson, David E. McDowell the head of IBM's Field Engineering group at Franklin Lakes, N.J. and his charismatic boss who ran all US Marketing and Services, George C. Conrades, were in hotel room in a very cold Detroit, discussing whether or not to go ahead with the Hibernia deal. Hibernia Corporation, a midsized regional bank in New Orleans, was under financial pressure to shed assets. IBM had recently approached them to firm up their service maintenance and parts commitment. O.C. Russell, Hibernia Vice Chairman, countered: "why don't you just run our whole operation?"

The stakes were higher than reflected in the relatively low value (<\$100M) of the eight year contract. McDowell was under the challenge to boost his service margins that were under attack by third party contractors, like Sorbus and TRW. He knew that he had to take the skills his group had developed, running "lights out" operator-unattended data centers and managing reliable software change processes, and move up the value chain. His vision was to move into disaster recovery, applications development, and computer operations -

anything with higher margins. That afternoon, Conrades decided "Let's do it" and bid Hibernia. This would be IBM's entry into outsourcing.

IBM had once run the Service Bureau Corporation (SBC), which under the terms of a government consent decree it, sold to Control Data Corp. SBC provided standard applications. With Hibernia, it would now run the customer's own applications. For IBM, outsourcing carried several major real and perceived challenges. Since the mid 1960's, IBM made its money from what it termed "technology", building large mainframe computers. Some company executives thought that entering the outsourcing business would wreck the mainframe cash cow. Conrades had to make the rounds and defuse the argument. What actually concerned him was how to price complicated contracts when IBM had no prior external operational experience, and then what would IBM do with the redundant assets that any prospective operation would acquire.

IBM certainly didn't need any of the buildings, mainframes, or personnel that it would pick up with a general outsourcing business. McDowell consulted with Harry Kavitas (recently appointed by George Fisher as Kodak's CFO) who was the head of the IBM Credit Corporation, IBM's leasing and lending operation. Harry told him that it would not be difficult to dispose of the machines and buildings. As for the people, Conrades got IBM Plans and Controls staff to approve "wedge" headcount, a temporary bubble in his plan to allow bringing the new people on board.

Conrades clearly saw the major strategic value to IBM of outsourcing viz the 5-10 year guaranteed revenue stream. IBM hadn't had the luxury of that kind of financial stability since it took its mainframes off lease in the 1970's and started selling them outright. Once it won an outsourcing arrangement, as the incumbent supplier, IBM would have a favored position to had additional services like networking or applications development. And over the duration of the contract term, IBM could consolidate services reducing its costs and improving its margins.

Outsourcing also offered Conrades an important tactical defensive advantage. Although they referred to it as "facilities management," a goofy term with all the pizzazz of a stale cigar, EDS was already actively approaching prospects and offering timely, error-free, cheaper DP operations. Anderson Consulting was poised to enter the field. Conrades was certain a new market was emerging that would significantly reduce IBM's traditional control over its key accounts. Having worked through the issues with the Hibernia case, IBM was emotionally prepared for the Kodak opportunity.

## **Shaping the Deal**

In some cultures, a matchmaker is invaluable for selecting prospective marriage partners. Afterwards, they maintain a moral obligation to make the marriage a success. During the marriage, one of the partners might approach them to help work out their problems. For that, Kodak employed the services of Conflict Management Inc. (CMI), a Cambridge-based group founded by Harvard's Roger Fisher, known for his 1981 book *Getting to Yes*, and several of his associates. Kodak had been working with CMI for a couple of years prior to

Hudson's outsourcing decision, and had evolved a successful and trusting relationship with the firm.

In 1987, Murphy set up a corporate-wide sourcing group under a forward-looking executive, Al Cummins. This organization was put in place to study how Kodak purchased key commodities like silver, coal, paper, and computer hardware and software. Cummins was out "to pick the low hanging fruit" by combining purchasing volumes across the corporation. Cummins was also attempting to improve the strategic management of Kodak's mega-accounts and account relationships. His model was the strategic relationship that Kodak had with its sole source paper supplier, the German firm, Felix Schoeller. He involved line-of-business purchasing, people from Corporate Commercial Affairs who handled licensing of intellectual property and relations with Kodak's technology partners like Canon and Matsushita and corporate sales executives. He created corporate account managers to replace Kodak's fragmented sales approach with a system of ambassadors that managed the entire balance of trade with large accounts.

Kodak's business landscape had changed and the old-line traditional manufacturer wanted guidance on continuing to play fair and do the right thing but not get fleeced in the process. CMI came in as trainers and advisors on managing complex business alliances with OEMs. That in no way just means doing a deal; rather it creates an effective process that puts either a great deal on the table or a clear understanding of what the parties will do if there is no agreement. CMI provided the alternative that Kodak was looking for so it would have to operate in either the confrontive manner of a labor/management negotiation or the suspicious mode of buying a used car.

It was Cummins' extensive experience with developing win-win long-term supplier relationships that Hudson drew on when it came time to find her I/T partners. She adopted the viewpoint that negotiating for I/T services was no different from the other complex deals that Cummins had consummated. She bought into the value of the CMI process and insisted that all prospective Kodak I/T partners first go through 3-day "launch" sessions to learn CMI's partnering model. And she enlisted skilled staff, who had worked under Cummins, to help structure the negotiations. These moves underpinned the success of her venture.

## **Getting Engaged**

Kodak did not put its MIPS Factory requirements out for bid. Henry Pfendt liked EDS. From his perspective he had been successful working with EDS on the strategic studies and expected to negotiate an agreement with them. Even though IBM concedes that it was probably only equal in technology to EDS, when it got the preliminary IBM proposal, Kodak put EDS on notice that they were also going to talk to IBM. Unfortunately for EDS, their team did not take this as a significant warning.

IBM and Kodak over the years had an unusual relationship. Kodak liked and respected IBM. Kodak routinely bought IBM mainframes, spending between \$75-95 million worldwide

annually. The IBM Rochester account team, that Bob Blake headed for 25 years, had lots of contacts within Kodak, and was seen by Kodak management as helpful and proactive. As one Kodak I/S manager put it: "They knew more about us than we did about ourselves. It was hard to tell if they worked for Kodak or IBM." In addition, IBM had recently "exited" from its copier business and sold it to Kodak in April, 1988, removing a thorn and giving the two companies an additional layer of relationship.

When IBM's new Kodak Account Executive, Paul Grys, went to McDowell with the news that Kodak was in the market to outsource PC support and that the local IBM account team wanted to bid for it, he got approval. After reviewing the seventeen responses to the RFP, Kathy Hudson chose Businessland, in a five year contract, as the partner to maintain Kodak's 35,000 personal computers and handle the purchase and installation of the 500 new ones per month that Kodak needed.

McDowell flew to Rochester to meet with Hudson and find out why IBM lost the "micro-buddy" deal. It was then he found out that Kodak was in the midst of negotiation with EDS to run the Kodak "Mips Factory." "Could IBM bid on that?" he asked. "Certainly" was Hudson's response. McDowell challenge was to quickly put together a team to assess Kodak's needs and produce a bid.

He went to a full court press to win the account, bringing in a dozen of the best people he could muster throughout IBM "to work, act, eat, and bond" with the Kodak team. IBM's strategy was to get Kodak and particularly Kathy Hudson to develop trust. IBM flew Hudson to Boulder CO. to visit Irv Schauer's I/S organization there to demonstrate that IBM had the competence to run a high availability, high performance, lean staffed, mission-critical data center. It was clear that Schauer's operation was better than Kodak's.

### **Sharpened pencils.**

Kodak is reluctant to say anything regarding the switch except to dryly note that "as a result, EDS is now more customer focused." But insiders to the talks say that IBM offered a surprising degree of flexibility. Like Burger King's ad slogan at the time, "Have It Your Way!" IBM was very open to Kodak's overall input on the prospective data center and was willing to run with Kodak's own choices for software standards. For example, Kodak wanted *JES3* instead of *JES2* software for computer task scheduling, *RACF* for data set security and Legent's *Endeavor* for source code management. No problem. EDS, on the other hand, was willing to build a new data center for Kodak, but wanted it to adhere to their internal corporate standards and, in essence, clone EDS's existing and successful IPC "information processing center" arrangement.

But perhaps more relevant was IBM's human resource reputation at the time. IBM, before its downsizing and waves of massive layoffs, was known for its culture of respect for the individual. EDS had taken over the Rochester data centers of its parent General Motors with a disregard for employee communications. Supposedly, employees went home working for GM on Friday came in on a Monday to find that their terminals' new login message was "This Terminal is the Property of EDS." Ninety percent of the Kodak employees had never lived outside of a 100 mile radius from Rochester. "Church talk,"

with the new EDS new GM employees who were being offered forced transfers to other EDS locations, made Kodak's I/S people uncomfortable with having their fate handed over to EDS. IBM appeared to these worried employees as their HR white knight.

## **Marriage**

Getting to an agreement took many different forms. In mid-February 1989, Kathy Hudson called an "all-hands" meeting, at the xxx Rochester Kodak headquarters tower, of her reporting lines to announce that she was considering outsourcing. The implication was that some, if not most, of the attendees would be working for another company by the end of the year. The reactions - shock, disbelief, and anger - were expected and palpable. For most employees, Kodak was like "motherhood and apple pie." To them, a job at Kodak was a job forever and when they heard the news and they were just plain scared.

Hudson promised personally to hold meetings with small groups every four to six weeks to address employee concerns and her managers immediately fanned out to all the I/S sites to do Q&A and boost morale. She also set up a steering process to address I/S customer concerns, communicate project status, and set up an "application migration process". Eventually 140 critical applications out of a portfolio of 800 were identified and their performance requirements determined. Even with this deliberate focus on outreach communications, Hudson, in retrospect, saw it wasn't enough. She says that messages went out but weren't heard or just didn't register.

Teams from both companies worked on getting the contract terms and conditions and I/S technical migration and operational plans resolved. Vaughn Hovey came over from Al Cummins' corporate sourcing group to become the relationship ambassador for Kodak. Frank Palm transferred from IBM I/S Corporate Staff in Purchase NY to be Hovey's counterpart. Together these two brought a remarkable sixty-three years of corporate seasoning to the table. Hovey brought both his skills in complicated procurement negotiations and also his experience in using the CMI negotiation model. Palm brought accumulated I/S management competence that commanded respect at Kodak and enthusiasm for running his own new business that brought him trust. As a pair, they provided a rare level of diplomatic ability.

Liz Gray, from CMI, acted in the Kodak/IBM's negotiation as mediator and facilitator. IBM, especially, credits her with making the critical difference in structuring the alliance. Her influence kept IBM from maintaining a positional approach to the contract. But just because Kodak was looking for a win-win outcome did not mean that it was going just roll over to reach an agreement. In fact, Kodak bypassed IBM and chose DEC for the Telstar networking agreement.

Hovey was an extremely tough and very demanding customer, making IBM stretch for the contract. But he was fair. Hovey recognized that IBM needed to make a good profit to keep this new venture stable and offered Kodak's support to help grow IBM's business. Lacking an I/S background, he also made it easier for IBM by taking a strictly business

point-of-view. The contract for a ten year agreement, valued, some say, at over a billion dollars, was a scant eleven pages long. This probably set a brevity record for IBM. Kodak posted the banns in July 1989. After waiting the compulsory sixty day interval, Kodak turned over the operation of five of its US data centers to IBM at the beginning of October, 1989. At a meeting in New York, the following February, Howard Anderson of the Yankee Group named it "outsourcing," providing a trendy term for popularizing the arrangement.

## Wedding Chatter

Not everyone was thrilled with the match. EDS was shocked. As Conrades marvelled: "It wasn't just a shot across their bow; it was a howitzer. It served notice on them and the industry that IBM was a player to be reckoned with." Observers took a mixed view of the events. Financial analysts generally viewed it positively. "It was an example of "a company unburdening itself of low value added fixed cost infrastructure commitments" said Steven Roach, a Morgan Stanley Co-Director of Global Economics, adding the trend to macho indiscriminate cost cutting, plant closings and layoffs was hollowing industries. "In a recovery, they can't hold market share."

CIOs were also divided on when outsourcing was valuable or even appropriate. Some, driven by harsh financial pressures, have been waiting in line to join the outsourcing movement and help their balance sheets. Most thought that the IBM/DEC collaboration was an unstable arrangement. Most were willing to concede that outsourcing some operational pieces was prudent, but that the jury was still out on whether companies would regret the loss of control over their I/T. Most concurred that strategic I/S services should never be outsourced. But there was no agreement as to where to draw the line between the routine and strategic.

One very senior information executive, at a company larger than Kodak, was very clear that "in all cases, outsourcing is a management issue, not a technology issue. Most executives haven't grown up in I/T and aren't comfortable with it. Like garbage collection, they just want to get rid of it." He went on to add that executives underestimate the impact of heavy staff turnover at outsourcing firms that can range between 30-35% annually. His experience was that service drops along with costs after a staff is absorbed by an outsourcing firm. Development cycles lengthen using outside consultants. He respected Hudson's decision, though, to go with outside vendors. In his opinion, Hudson had an insurmountable job trying to consolidate the internal organizations. Outsourcing meant fewer political battles for her to win.

Some companies still have I/T operations that are more sophisticated than the outsourcing companies. Max Hopper, the CIO at American Airlines, who is in constant contact with all the outsourcing firms, can't conceive of any firm who could provide enough service guarantees and still make an economical bid to run his Sabre systems. He also believes that most of the outsourcing savings will decline as companies move from MVS on mainframes to workstation client/server solutions. Frank Urbeck, the CIO at United Parcel, is also skeptical about any savings from outsourcing. He tells outsourcing vendors: "I'll

outsource yours (work load). I'm doing it cheaper than you can. I can prove it." For him "information is my primary product. The trick is attaching information to every truck and plane." Without the flexibility to run its own operations, UPS would be at a loss in adjusting to the dynamics of the weather and the market.

Nevertheless, Kodak and IBM purr contentedly, like a happily smug couple who have heard all the gossip before. Vaughn Hovey says simply: "when you pick the right outsourcing partner; when that partner has real core competency with what you're giving him; when you're strategic in your thought process out front; and you have a good blending of cultures and objectives; it works, and it works extremely well. We've also discovered that when a partner doesn't have a real core competency in the thing that they are taking over; and if it is strategic to you; and if the cultures aren't aligned, you can have some problems." Like any marriage, it takes basic trust and a lot of work. No one says it comes easily.

### **After the Honeymoon**







and in-wall video camera that can observe clients using software packages. This lab allows developers to see how easily users adapt to operating new software packages, so that the developers can eliminate kinks in the program interface, documentation, and flow before deploying the code.

ISSC guests are taken to the "Decision Support Center" that employs *Team Focus* software, developed by the University of Arizona, running on a set of LAN-linked personal computers. ISSC rents the space for groups that want to conduct meetings which use electronic brainstorming, and employ issue ranking, anonymous idea exchange and voting, and electronic logging of meeting minutes.

But most ISSC activity is devoted to the bread-and-butter operational issues of keeping the systems up, the response time low, the networks live, and the help lines answered. As Joe Valenti, the operations manager of the center, described the virtuous circle: "At ISSC, customer expectations, drive service levels, that provide reference accounts, that secure us new business."

#### Speeds and Feeds:

- o Facility - 102,000 ft<sup>2</sup> of raised floor in a 189,000 ft<sup>2</sup> building on a leased eleven acre site in the Kodak-owned Canal Ponds industrial park. Completed Feb '91 in under two years. Building cost without equipment over \$30 million. Kodak had budgeted \$25 million in capital expenditures for consolidating its data centers.

- o Staff - 100 people in operations out of an overall site population of 355. Two-thirds of the current staff were Kodak transfers to ISSC, ten percent IBM transfers in, and the rest new hires.

- o Capacity - 1000 MIPS of ES/9000 computing power distributed over 39 logical images and backed by 5 terabytes of storage. 99.5% overall system availability. Half of the software and 20% of the hardware installed base is from outside IBM. Equipment transfer from Kodak to IBM phased in over two years to avoid New York State tax consequences.

- o Communications - Two 540Mb fiber rings with taps at locations throughout the 300 acre industrial park. Eighteen D3 (28 x T1) 45Mb digital trunk lines. SNA, Ethernet, and Token ring network operations.

- o Power - Designed for high availability. All systems operate on conditioned power run through three banks of lead-acid batteries sourced by four feeds from dual 34.5kVA substations. Thirty minute battery backup capacity. ISSC is the tenth largest electrical customer in Monroe county. Center is designed with a mainframe heat regeneration facility, for operational energy savings. Redundant chillers and cooling towers.





based, IBM Information Network value-added network (VAN) services group and a similar Sears-owned VAN, to form Advantis, a majority-owned IBM voice and data VAN, run by ISSC, adding another 3,000 employees. ISSC has also picked up skilled employees when contract partners, such as Kodak, transferred I/S staff out.

The creation of ISSC, fit within the corporate re-engineering and restructuring and decentralization model that IBM CEO John F. Akers fostered at the time. ISSC, set up with its own "Chairman", "CEO" and "Board of Directors", was positioned as an autonomous subsidiary. This standalone structure allowed IBM to adopt different personnel practices and possibly "attrit" excess staff. It allowed latitude for IBM to adopt partnership roles, like Advantis. By keeping IBM's name off the title, it gave the appearance of a more neutral stance towards other equipment vendors. Finally, it positioned the new unit for possible future divestiture from its IBM parent.

Moving the I/S functions, with their associated staff headcount and equipment depreciation, into the for-profit ISSC subsidiary immediately helped M&S and M&D by raising their overall productivity calculations and respectively lowering the expense-to-revenue and raising the return-on-assets key management measurements. It also solved a major NSD problem of how to make up for competitive margin erosion on its bread-and-butter businesses and provide a stable, lasting revenue stream.

Forming ISSC raised the esprit de corps and operational efficiency within the former IBM I/S organizations, which had never before ranked high in the overall IBM pecking order. The consolidated I/S function gave the new ISSC organization an immediate bulk of about 10,000 US employees. This provided a critical mass both to support its current business and to credibly compete within the outsourcing service industry. It also provided ISSC with a stable base of captive income, that in 1992 measured over \$1 billion or two-thirds of its revenue.

With the Kodak experience in partnering and alliance management, ISSC evolved a somewhat different focus from old-line IBM marketing, with greater customer awareness, a "softer" sales pitch, and more negotiated solutions. ISSC is now much more focused on customer relationships and internal efficiency than the internal I/S groups that comprised it. Kodak has provided the key reference account for ISSC potential customers. The data center is a key marketing tool. And about five hundred people have spent a half a day with Kodak executives talking about outsourcing issues. Kodak's partnering emphasis and contract structure looks for IBM's business to grow and prosper and further reduce costs to Kodak.

ISSC is still undergoing growth pains. Although McDowell insists that the formation had no internal resistance, political turf issues have kept IBM's business consulting group, that does high-level business process re-engineering, and the professional services group, that does local custom applications development, from being consolidated into ISSC where they might logically belong for reasons of synergy.

ISSC also occasionally runs into a credibility problem or two regarding its technological



outsourcing. Kodak has already "insourced" some of its PC maintenance operations.

I.R.S. tax code changes might quell the need to move I/S assets off the books to improve ROA measurements. A simple investment tax credit, for example, might have an unsettling effect on new outsourcing business. Likewise, shifts in F.A.S.B. accounting rules, changing the status of long term obligations could upset some of the off-the-books financial attractiveness of outsourcing. The trend to client/server application implementations will also lessen outsourcing attractiveness. Much of the savings attributed to outsourcing comes from consolidation and standardization of multiple large mainframes running MVS operating system software. Few predict that workstations will be outsourced with as much operational savings. Finally, much will depend on contract terms offered after the first wave of deals expire.

How IBM will fare depends on its meeting four challenges: Can ISSC price to save the customer a minimum of 20% while putting aside a 20% profit in a world with declining margins? Can ISSC match the depth and integration of services offered by niche industry specialists? Will prospective clients be attracted to working with a company whose humane resource policies have lost their "e" in the last few years and offer more risk than reward for employees being transferred? And most importantly, can ISSC maintain flexibility, openness, and accommodation, the traits it developed in working with Kodak, or will it revert to normative bureaucratic rigidity, secrecy, and arrogance?