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Managing Government and Healthcare IT Outsourcing in Europe:

**A relationship
based approach**



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Executive Brief

This report offers approaches and tools for successful IT outsourcing in the European market. It begins by presenting background on the European IT outsourcing market. This sets the stage for a general discussion of the value propositions and challenges associated with IT outsourcing. The main section of the report discusses a new mindset (a partnership approach) and a new tool set (a process-oriented model). Finally, the report looks at trends and future developments, and outlines a general set of recommendations to ensure success.

The European IT outsourcing market is expected to grow from about 3 percent (2004) to 7 percent (2007). Simultaneously, global sourcing by European countries will emerge at a compound growth rate of 27 percent. Thus, European governments and companies are being presented with opportunities to realize the value propositions of IT outsourcing, including access to advanced IT expertise, quick deployment, and cost savings. Yet, management and regulatory issues present challenges to fully realizing the potential of IT outsourcing.

The key to successful IT outsourcing lies in a new mindset and skill set. The new mindset is the partnership approach to managing IT outsourcing. This relationship-based approach engages strategic thinking and fosters continuous service improvements to reflect fluctuating service needs and changes in technology.

The new skill set consists of a five-phase process model. The process begins with determining a sourcing strategy that clearly addresses strategic issues and objectives. The next phase involves analyzing IT sourcing needs and operational relationships determined by functional requirements and performance matrices.

These specific needs and requirements guide the selection of service providers and help in crafting service contracts in the third phase. In the fourth phase, the organization-to-service provider transition is implemented, perhaps to include systems or data migration, depending on the IT services being outsourced. With completion of transition, the focus shifts to managing service performance.

Managers of IT outsourcing must closely attend to the rising trend in best sourcing and address increases in management and regulatory complexity. Best sourcing involves finding the best combination of onshore and offshore alternatives that provide the best quality services at the most affordable costs. Meanwhile, managers must attend to increasing complexity when dealing with privacy, security, and employment issues in Europe and beyond. The governing structure of the IT outsourcing strategy must provide a mechanism for addressing such issues.

The report recommends adopting a new relationship/partnership approach to help the organization stay strategic as it provides the resource commitments necessary for lasting success. To fully take advantage of global sourcing opportunities, organizations around Europe must build the appropriate management capacity. Organizations will find it beneficial to work with a system integrator that can migrate and integrate fragmented systems while managing subcontractors. The final recommendation calls for adhering to the process model as thoroughly as possible in order to realize the value of IT outsourcing while minimizing its risks.

Delivering Value with IT Outsourcing: Opportunities and Challenges in Europe

The European IT outsourcing market has seen rapid growth in recent years. The current growth rate is 3.1 percent in 2004 and will rise to 8 percent in 2007, according to Gartner (2004). The continuing growth trend is particularly impressive, considering the number and size of IT outsourcing contracts awarded by Europe-based enterprises and governments in 2003.

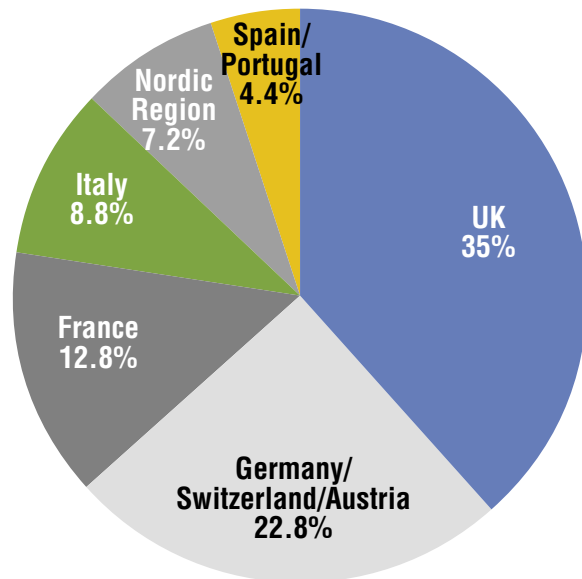
A Face Lift: IBM to Overhaul IT Infrastructure

IBM has won a 10-year, multimillion-dollar deal to overhaul the information technology infrastructure of Northern Ireland's health service.

The Department of Health, Social Services and Public Safety (DHSSPS) of Northern Ireland outsourced the consolidation of IT systems to IBM. This project will create a single business-process-driven system to replace 106 distributed multi-vendor IT systems. This project establishes the foundation for a single electronic healthcare records system by 2005.

In 2003 European countries led the way in large IT outsourcing deals. If €800 million (approximate US\$ 1 billion) were to be used as a benchmark for "large projects," then Europe-based organizations have awarded 10 out of 15 of such projects. The largest and most visible project totaled €5.5 billion (£3.8 billion or roughly US\$ 7 billion), a collection of multi-year contracts awarded by Britain's National Health Service (NHS) to British Telecom and various partnering companies. This IT outsourcing project has received attention across Europe and beyond. It is seen as a possible model for transforming national healthcare systems, and as a possible impetus for more IT outsourcing in healthcare and other service areas.

The current makeup of the IT outsourcing market in Western Europe sees the UK leading the way with a 35 percent share. The Germany/Switzerland/Austria region ranks second with 22.8 percent. France and Italy have market shares of 12.8 and 8.8 percent, respectively. Nordic regions constitute 7.2 percent, while Spain and Portugal have 4.6 percent of the market (Gartner, 2004).



Among recent European IT outsourcing projects, those initiated by government and healthcare sectors are leading the way. The mega deal attracting the most attention has been the British National Health Service's multiple IT outsourcing plans comprising its 10-year, £5 billion modernization campaign started in June 2000. One of those plans includes British Telecom's 7-year, £530 million deal to develop a new national network. Another example of government healthcare outsourcing is IBM's 10-year contract to overhaul the information technology infrastructure of Northern Ireland's health service (McCue, 2003).

IT Outsourcing and Emerging Trends

IT outsourcing is the utilization of external organizations for the production and/or provision of information technology services. This utilization has two different dimensions: (a) the types of services involved and (b) the types of operational relationships between the organization and its vendor. The types of services include networks, applications, data centers, web-hosting, etc. One example is outsourcing desktop operating systems and applications by the National Health Service to Sun Microsystems pending a successful trial period (Sun Microsystems, 2004).

IT Outsourcing

IT outsourcing is the utilization of external organizations for the production/provision of information technology services. Networks, desktops, applications, data centers, and web-hosting are examples of commonly outsourced IT services.

The types of operational relationships vary according to the degree to which the organization is involved in working with its vendors. High level involvement usually reflects a partnership model where both parties invest significant time and resources to co-develop and manage IT services to fit their respective strategic objectives. Low level involvement follows the traditional purchasing model of outsourcing, where services are highly specified and flexibility and communication are rather limited.

Best sourcing has gained momentum with the maturing of the IT outsourcing market. Best sourcing refers to the use of sourcing strategies that are best for the organization. Government and companies around the world have begun to realize that the best sourcing strategy helps them achieve strategic objectives. The sourcing arrangement can encompass IT infrastructure, business processes, or financial applications, so long as it meets the strategic needs of the organization.

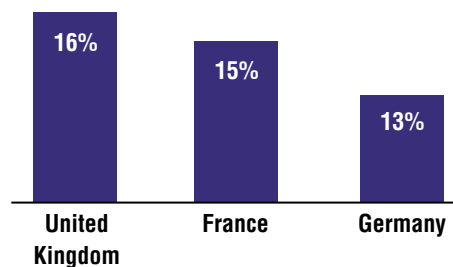
Global IT sourcing is also on the rise. It is estimated that emerging economies will account for up to 25 percent of traditional IT markets by 2010 (Gartner, 2004). This trend mostly results from the quality of IT services provided by vendors in other countries, as well as organizations in developed economies having increased experience and expertise in managing global sourcing arrangements. To respond to this trend, companies began to conduct rigorous processes to assess risks

associated with offshore sourcing, particularly risks in the realms of politics, legal jurisdiction, and security/privacy regulations.

Increasing complexity is another emerging phenomenon of IT outsourcing; it results mostly from mega deals and the need for integrating various IT components to provide comprehensive IT services. For example, a mega outsourcing deal usually involves many vendors providing network, desktop, database, and system migration and reengineering services. The coordination among vendors is a significant challenge.

Value Propositions

The ultimate value of IT outsourcing lies in using information technology to transform business processes to meet the objectives of the organization. It goes beyond having access to networks or more computing power. The real value comes from using information technology to reengineer business processes. This transformation entails better, faster, and more affordable services. This has been particularly relevant for healthcare for major Western European governments like France, the UK and the Netherlands. Not only do healthcare processes within these countries require modernization, the costs associated with healthcare are often the largest single component of public spending for these countries, typically ranging from 10-15%. For instance, in 2002, healthcare spending constitutes approximately 16%, 15% and 13% for the United Kingdom, France and Germany, respectively. Taking Britain's National Health Service (NHS) as an example, we see that not only does outsourcing save the UK government significant resources, but outsourcing the network building and management to British Telecom establishes a previously non-existent backbone infrastructure which can provide information and services to the whole country. The NHS deal also modernizes all the patient record processes for the entire country, and every citizen.



Value Propositions for IT Outsourcing

- *Transformation of business processes via information technology*
- *Access to IT expertise*
- *Cost savings*
- *Quick deployment*
- *Improvement in cash flow management*
- *Employment flexibility*

The standard set of benefits associated with IT outsourcing includes access to IT expertise, cost-savings, quick deployment, improvement in cash flow management, and flexibility in employment (Antonucci, et al., 1998). When a new major IT project is developed, governments often find themselves lacking the necessary IT expertise. This is due mostly to the fast-changing nature of information technology and government's competitive disadvantages in hiring and training skilled IT personnel. Cost savings are possible via leveraging economies of scale at the vendor side. Rather than building network capacity one government agency at a time, governments can outsource network services to network companies that can provide identical services at much lower unit costs. Quick deployment is a natural consequence of the increased technical and financial capacities obtained through a vendor.

In difficult financial times, governments welcome improvements in cash flow. This benefit can be realized by arranging with private companies to pay only for ongoing services. The vendor shoulders the initial capital investments and makes recoveries through service fees over time. Flexibility in employment is another advantage of IT outsourcing. Vendors are more flexible than governments when responding to changes in demands for specific IT skill sets.

IT outsourcing also makes meeting the requirements of e-Europe initiatives easier. For most European countries, e-Europe initiatives are more attainable when IT expertise is delivered by the private sector or companies in other countries. In the healthcare area, the European Commission has launched the e-Health action plan to bring health information network to member states by 2008. IT outsourcing, as seen in the NHS IT program, is a viable solution.

IT Outsourcing Challenges in European Countries

Realizing these benefits in the European market requires an understanding of the risks associated with IT outsourcing. Project managers must navigate political, regulatory, and management issues. The foremost political consideration involves employment, particularly when offshore sourcing is involved. Relative labor inflexibility in European countries has been well documented as one of the barriers to outsourcing (Healy and Linder, 2003). For example, countries like Germany and France make layoffs difficult and expensive. Any major IT outsourcing project must address employment concerns directly.

Within the regulatory landscape, privacy issues are potential risk factors that must be managed. The EU Directive on data protection went into effect in October 1998.¹ The directive specifies the rights of data subjects, allowing them to be informed when data is collected and processed, and giving them the right to make corrections. With respect to outsourcing to non-European countries, the transfer of personal data can only be allowed when the receiving country has the same level of protection as dictated by the directive. The U.S. Department of Commerce has devised a mechanism called "safe harbor" to meet the EU's requirement for the protection of personal data. Security plays an integral part in privacy concerns, when personal data must be protected from unauthorized access, loss, or misuse. Privacy issues become even more pronounced in service areas such as financial management and healthcare.

Process-Oriented IT Outsourcing Management Strategy

New Mindset

For realizing benefits and minimizing risks, an effective outsourcing management strategy requires not only a new tool set, but it also requires new mindsets. In IT outsourcing, the foremost shift in mindset involves shifting from managing a purchase to managing a relationship. An IT outsourcing arrangement is essentially a relationship that requires good strategic fit and on-going maintenance. The traditional purchase model does not cope well with changes in technology, user needs, and the regulatory environment. In contrast, a relationship-based approach to IT outsourcing is relatively adaptive and flexible in dealing with change. This approach is adaptive—that is, its emphasis is on finding strategic win/win solutions, maintaining frequent communication, and ensuring mutual adjustments.

The relationship-based approach is of increasing value due to the emergence of global sourcing. The organization and its vendor remain in constant communication, both addressing changes in respective regulatory environments and changes in technological development that may have implications for the IT services being outsourced. For example, if France's government were to lift its limit on the three-year term for outsourcing contracts, then this might allow for modifications in cost recovery models, to make them more long-ranged.

Another important change in mindset involves looking at IT outsourcing as an on-going process rather than as a one-time undertaking. An IT outsourcing arrangement is—in its nature—process oriented. The process begins as early as identifying the sourcing need as part of the overall strategy. For example, an element of such a strategy would stipulate a preference for open-source applications. Preference would be given to vendors adopting open-source strategies. This process continues, even as services are being rendered, so as to monitor the level and quality of services. A more comprehensive list of the steps involved, and their relationships with one another, will be presented below.

This “process” perspective helps to sustain the resources needed at every step of implementation. One of the most common problems in IT outsourcing projects is the lack of management input during on-going service moni-

toring and upgrades (Chen and Perry, 2003). Another common problem involves rushing through the identification of sourcing needs, particularly in the evaluation of how needs are related to the organization's overall strategy. An inadequate level of resource input at this stage is likely to cause strategic misalignment, which causes significant resource waste later on.

Critical Success Factors

The critical success factors for the relationship-based and process-oriented approach are relevant at every stage of the project lifecycle. They should serve as guidelines for managing IT outsourcing projects. They remain critical factors that require close attention, even as project size and emphasis may vary.

First, top management must be involved in the IT outsourcing arrangement. Initiating an IT outsourcing project requires that all parties involved have a clear understanding of business objectives. The involvement of top management ensures that the outsourcing project is in alignment with the organization's business objectives and it makes possible strategic alliances. Top management can also act as project sponsors, making adjustments to project scope and schedule. Another central responsibility of top management is to provide needed resources for implementing the IT outsourcing project.

Critical Success Factors

- *Top management support*
- *Frequent and quality communication*
- *Provision of ample time and resources*
- *Continuous learning and benchmarking*
- *Proactive in addressing legal and regulatory concerns*

The second critical success factor is frequent and quality communication among all parties involved in the project. Poor communication often results in problems in IT outsourcing. Communication becomes particularly critical as global sourcing becomes more common. Cultural differences and nuances in expression in regional or global contexts require frequent and quality communication to prevent misunderstanding. Frequent and quality communication requires that all involved parties view the IT outsourcing contract as a strategic opportunity for all. An established performance matrix and frequent updates provide necessary information for effective communication.

Ample time and resource inputs are critical for success. There is a tendency to underestimate the time and resources needed for a relationship-based IT outsourcing arrangement. This is particularly the case when managers are reluctant to relinquish the procurement mentality, where continuous communication, adjustment, and service improvement are not properly considered. The organization and vendor should jointly designate a project manager or project team to serve as liaison. This should be an on-going arrangement over the entire lifecycle of the project. The resources needed to conclude a contract should also figure into the resource calculation (Bendor-Samuel, 2002). In most cases, resource input is at its peak demand during transfers of operational responsibilities.

The organization engaging in IT outsourcing has the responsibility to conduct continuous learning and benchmarking. The organization must have adequate in-house technical and management capacity. And this capacity requires continuous learning to build and sustain. Once in place, this capacity helps the organization evaluate the quality of IT outsourcing contract bids, as well as help in monitoring performance and making recommendations for IT service adjustments.

Another issue is benchmarking IT services. The organization must continuously scout IT services provided by other vendors, using their services as benchmarks. Such information helps improve services rendered by the current vendor.

Being proactive in addressing security, privacy, and other regulatory concerns is another critical success factor. Privacy and security are two overarching requirements for IT outsourcing in the European market. These two concerns should be integrated into every phase of IT outsourcing. For example, when companies need to transfer IT network operational responsibilities, they must deploy safeguards against security breaches and invasions of privacy. The healthcare industry in particular possesses sensitive personal and medical information which are subject to regulation. Regulation compliance should also form part of the service agreement, even perhaps anticipating forthcoming regulatory changes.

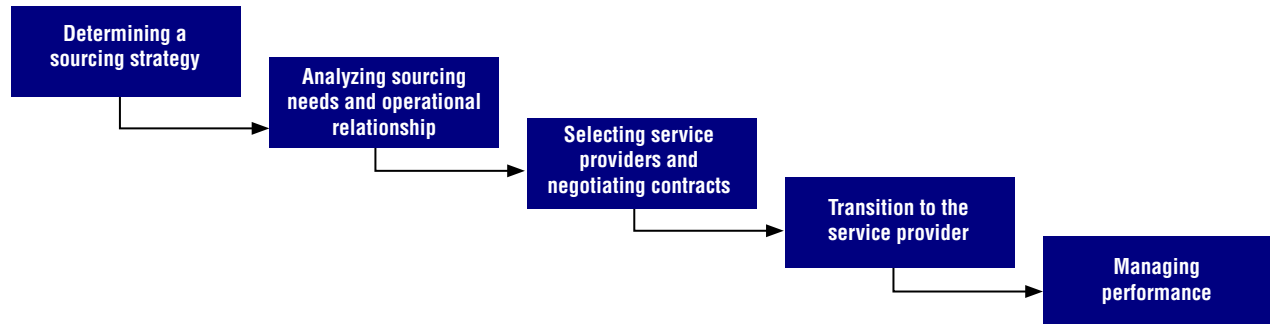
Process Model

The proposed process model is generic enough for organizations of diverse needs and types. The model presents a “process” that organizations must undertake as they plan and execute IT outsourcing projects. Following this process, and attending to issues as they emerge at each phase, significantly increases the chance of success. The process consists of five phases (see Figure 1), beginning with formulating a sourcing strategy that clearly addresses strategic issues and objectives. Then, in the second phase, IT sourcing needs are analyzed and operational relationships defined according to functional requirements and performance matrices. In the third phase, these specific needs and requirements guide the selection of services providers and determine the crafting of the service contracts. Next, in the fourth phase, the organization-to-service provider transition is conducted, possibly entailing system and data migration, depending on the IT service being outsourced. Finally, with completion of transition, the focus shifts to managing service performance.

The flexibility of this process model accommodates IT outsourcing scenarios at different stages of development. The model helps organizations conceptually refer back to previous phases, to clarify the nature of the project so as to ensure more effective management in subsequent project phases. For example, an IT outsourcing project already at the contract negotiation phase can benefit from a more thorough investigation of sourcing strategies, needs, and operational relationships.

Though the model flow is sequential, it also provides feedback loops that refer back to previous phases. Learning gained at one phase can be incorporated into feedback loops that refer back to previous phases, thus generating information for possible adjustments. This allows for timely adjustments of strategic direction and operational relationships. Rapid fluctuations in service needs, market conditions, and technology options force the organization and service provider to better cope with change. For example, lessons learned in the transition phase may help the organization adjust for tighter control over operational relationships.

Figure 1. Process Model for Managing IT Outsourcing



Phase I: Determining a Sourcing Strategy

In the first phase, a sourcing strategy is determined. This involves defining the organization's strategic business goals and ensuring that IT aligns with them (McIvor, 2000). For healthcare managers, a strategic goal may be providing patient-centered services powered by information technology. In this case, the information systems to be installed must provide quick access to patient information and the ability to consult with doctors at the patient's prior treatment locations. If the IT service is not currently available in-house, the organization must consider a sourcing strategy. At this phase, the focus is on the organization's strategic IT goals. Equipped with a strategic IT plan, the organization has a guide for the sourcing strategy.

Defining sourcing scope and strategy requires an adequate level of internal IT management capacity. An experienced IT outsourcing management team is more capable of assessing the associated benefits and risks. The relational nature of IT outsourcing arrangements dictates that the internal IT staff stays highly involved. The proper level of IT management capacity varies according to the scope and nature of the project. One indication of proper capacity is having enough in-house knowledge for selecting service providers, managing the relationship, and making performance adjustments. The focus of management capacity should not be directed at operational details, but rather, it should be directed at a general understanding of the strengths and weaknesses of various platforms, applications, and network options.

The sourcing strategy has three general objectives: continuous service improvement, business continuity,

and compliance with relevant laws and regulations. In formulating a sourcing strategy, the organization must consider how to continuously improve service. For example, to help accomplish this goal, the organization can find a strategic partner whose business model incorporates generating value through improved services. Business continuity is another issue in determining the sourcing strategy. The strategy must provide sufficient safeguards against IT service disruptions caused by major disasters. The safeguards should be placed in a risk management framework to help prioritize service items for business continuity. Compliance with relevant laws and regulations is another objective of the sourcing strategy. Privacy, security, and employment regulations are likely to comprise the main issues. Once the sourcing strategy has been determined according to the strategic IT plan, incorporating proper assessments of internal IT management capacity and identification of key objectives, phase II can begin.

Phase II: Analyzing Sourcing Needs and Operational Relationship

The second phase translates the strategic objectives into specific sourcing needs and operational relationships. Even prior to considering a specific vendor, the organization first must specify the information system's functional requirements that enable the delivery of strategic IT services. An example of a functional requirement is the ability to do enterprise resource planning (ERP) to link financial, accounting, and human resource systems. If the organization lacks a home-grown enterprise resource planning application, it may need to get an application, as well as allied support, from a service provider. Sourcing needs are best defined by

performance matrices in response to the three general objectives mentioned in the first phase. For service improvements, the performance measures may address an ERP application's flexibility in dealing with changes in service demands. Business continuity may be defined by performance measures such as time required for bringing service back online after a major disaster.

The organization should take a partnership approach when arranging operational responsibilities with its vendor. This would involve identifying the strengths of a vendor and how those strengths may complement the organization's operations. For example, Northern Ireland's health service was looking for a centralized data center solution to address its fragmented and increasingly costly databases. It sought a service provider experienced in data migration, system integration, and centralized data centers.

In health service, the operational responsibility is likely to focus on determining business functions and facilitating data migration. The service provider should provide technical support in the analysis of old systems and mapping of consolidation paths. The operational relationship should have some built-in flexibility. Flexibility is made possible through good strategic alliances and the partnership approach. Meanwhile, fluctuations in service needs and regulatory requirements are driving operational responsibilities. To determine what role the service provider will play, the organization must examine the various stages of the system development lifecycle, for example, focusing on information system design and implementation.

Investigating functional requirements and the operational relationship help in the selection of service providers, as well as provide an opportunity for reviewing the feasibility of the business objectives outlined in the first phase. When formulating functional requirements, the organization may find new and better ways to let information technology help achieve business objectives. For the organization evaluating outsourcing options, a list of functional requirements gives a clear indication of which service provider is in the better position to meet those requirements.

Phase III: Selecting Service Providers and Negotiating Contracts

In the beginning of phase three, the organization ensures that it has an appropriate level of internal IT capacity to engage service providers and review contracts. A competent in-house IT management team is the prerequisite for selecting the appropriate service provider and negotiating service agreements. The IT management team should possess both, a certain level of technical knowledge, as well as contract management skills. Technical knowledge is needed for judging the merits of contract bids. With contract management skills, the management team can identify and solve potential problems, for example, those resulting from miscommunication.

Though outsourcing arrangements vary significantly, the organization must find service providers that have good strategic fit, that can provide operational competency and compatibility, as well as adaptive and integrative services. The strategic focus of the service provider should match the organization's needs. If the organization requires a backbone network infrastructure as the foundation of its information system project, it should look for a company whose primary and long-term business is network services. Operational competency is another important consideration. The service provider must demonstrate that it has the capacity to do the job properly. For large projects, the organization can require demos as part of the bidding process, to better understand the competencies of the service providers.

System integrators are preferred because they can manage system integration and because they can adapt well. In fact, most new information system projects are integrative in nature, particularly when they aim to pursue the consolidation of IT services to support the enterprise. This would involve examining the old, fragmented systems to install interoperability and facilitate system migration. This is especially true for mega-projects that encompass entire organizations/enterprises already having separate applications and databases in various departments and units. Integrators are relatively more adaptive because they are not locked into a particular platform or application. They can deal with fast-changing technology by introducing new products and services as they provide values to their client organizations.

The IT outsourcing contract should be a service-level agreement that incorporates performance matrices, data stewardship, and penalty clauses. Service-level agreements should clarify the expectations of both the organization and its vendor, making clear what IT services are to be performed, and the level of performance. Performance matrices capture the measures used to monitor performance levels. Performance measures can include, for example, uptime for business continuity, user satisfaction for overall performance, and ability to handle complex requests. Data stewardship addresses privacy and security concerns. The agreement must delineate the responsibility boundaries for securing data stored in an information system. Penalty and termination clauses should be established to address the possibility of unsatisfactory services or interruption of services. For example, the contract can include standards for termination as well as dispute resolution mechanisms (Lee, 1996).

Phase IV: Transition to the Service Provider

Once the service agreements have been signed, the transition phase begins. The transition includes both the employment and information system dimensions. The organization must formulate and execute a comprehensive plan to smooth the transitioning of in-house personnel affected by the project. This may involve training programs or employment opportunities with the service providers. Employment issues must be carefully addressed, as this may prove to be the most controversial issue, particularly in light of political and regulatory situations in the host country.

The information system dimension includes data/system migration and system integration. The magnitude of this task depends on the complexity of the existing system, the quality of data, and the extent of change involved. Also, this is an opportunity to prepare documentation on existing IT services and resources pertinent to the project, thus enabling the organization to track changes resulting from the transition.

A protocol for protecting privacy and securing systems during the migration is necessary. This protocol must map steps involved in migrating data and systems. Access control and accountability must be established to minimize transition risks. The organization must take the initiative when devising the protocol since it is ultimately accountable for any violation of laws and regulations.

The organization should budget ample resources to manage the transition in both the employment and system dimensions. This phase, compared to other phases, may prove to be the most resource-intensive. Much resource is required for cleaning the data, establishing common standards, and migrating to the service provider. The cost should be included in the outsourcing arrangement; nevertheless, the organization should be prepared for unforeseen costs. Organizational resource is also needed to manage organizational changes resulting from the transition. This may require new mindsets and skill sets, both of which require time and resources to cultivate.

Phase V: Managing Performance

Managing performance follows the transition phase. An important goal of this phase is that the organization stay focused on the business objectives that the information technology service aims to achieve. During this period, service needs are likely to change due to changing circumstances in, for example, market conditions or regulatory requirements. The organization must review its sourcing strategy to determine the changes needed for performance requirements or service enhancements.

Yet another important guideline recommends that the organization maintain frequent and quality communication with vendors and key stakeholders. Business managers can review communications to evaluate the relevance of IT services to their business objectives. Managers, then, would be able to provide guidance on the next phase of service improvements. The organization and its service provider must understand service performance and they must identify tasks for continuous improvement.

A dedicated IT manager or management team is critical for success. Thus, dedicated resources are needed; they can stay focused on business objectives, conduct continuous improvement, and facilitate timely exchange of service information and expectations. The management team can deploy a performance management system to capture performance matrices included in the service level agreement. Such a system would also serve as the foundation for timely communication of service quality (Rubin, 1997). This performance information system would also have another use; it can serve as a knowledgebase for service improvement ideas coming from both the service provider and the organization itself.

Case Study: IT Outsourcing for Modernizing Britain's National Health Service

The IT Outsourcing Deal

Britain's National Health Service (NHS) has launched the largest IT outsourcing initiative in Europe. The total value of all IT outsourcing arrangements for this 10-year modernization of healthcare service is worth over £5 billion. The primary objective of this modernization plan is to provide better and faster healthcare services for everyone in England (Department of Health, 2003). Everyone will have access to his or her own electronic health records, regardless of the healthcare service provider. This patient-centric healthcare information service will result from modernizing and linking regional healthcare information systems and connecting them to a national system. The boldness of the NHS vision and sheer size of the deal are leading to increased interest among many world governments to consider outsourcing healthcare IT, which is why the NHS deal merits further exploration as a case.

The modernization plan features a single national backbone system, with five regional systems linked to it (Collins, 2004). The national program is comprised of a broadband infrastructure, care record services, electronic bookings, and electronic prescriptions. British Telecom (BT) won the 7-year, £530 million contract to provide the broadband infrastructure. BT is also the winner of a £620 million care record services system contract that has a national data spine, and subcontractors such as Oracle, Sun Microsystems, and Logica CMG. Holding a contract worth £64.5 million, Atos Origin is responsible for building a national electronic booking system for hospital appointments.

Five regional service providers won contracts to modernize local systems and to feed local healthcare information into the national system. The largest contract, in terms of population covered, is for the south region, which includes London. Fujitsu Alliance won this contract worth £896 million, thus becoming responsible for modernizing fragmented systems in the south. For northwest England and the west Midlands, CSC was awarded a £973million contract. Accenture is responsible for the eastern England region, having won a contract worth £934million. Again, Accenture led BT,

Microsoft, and LSoft, a data security solution company, for the northeast England modernization contract worth £1.1billion. BT captured the London region with a £996 million, 10-year contract.

The national strategic program at the Department of Health is responsible for developing the strategic IT plan for the modernization effort (Department of Health, 2002). The Information Authority of the National Health Service was formed in 1999, and it is charged with developing and delivering information technology services to the NHS. The responsibilities of the Information Authority include setting national standards for data and applications, managing IT portfolios, managing sourcing processes, and overseeing implementation.

Illustrating the Process Model with the National Health Service Modernization Project

The IT outsourcing endeavor of the National Health Service illustrates the utility of the process model presented above. The NHS experience is a good case study of how the process model can be applied.

As the first step in determining sourcing strategy, the NHS began with a clear statement of strategic IT goals: building a patient-centric healthcare information system, enhancing learning and communication, and improving management and delivery of services (Department of Health, 2002). This would create an affordable first-class infrastructure and set of services. In its master plan, the NHS adopted a strategic outsourcing approach that sought partnership with industry. This approach lets the NHS focus on developing national standards and coordinating a national strategy with regional and local entities. It uses private service providers to add speed and value whenever possible.

The NHS established in-house IT capacity to evaluate its sourcing needs and to map its operational relationship with potential service providers. Moreover, the sourcing strategy was aimed at making possible continuous service improvements. It stipulated continuous benchmarking of services vis-à-vis healthcare organizations and IT service companies in England and abroad.

The NHS wants the best IT service that is also affordable. The identification of sourcing needs was aligned with the strategic objectives stipulated in phase one. These sourcing needs included a national information system backbone, local service providers for five

regions, and the conversion of fragmented legacy systems that must be in interoperability with a national system. The national backbone requires a network service provider that also has system integration capability. Local service providers must have experience in modernizing legacy systems.

One of the key sourcing needs requires that healthcare data be protected and secured. In an Output-Based Specification (OBS), the NHS has outlined requirements for audit, access control, data quality, security, and confidentiality. The specifications consists of over 300 technical items that all prospective IT service providers are required to meet in order to win a contract.

The operational relationship envisioned at the outset is based on a partnership model. The Information Authority is responsible for establishing and maintaining national standards and monitoring service performance. Service providers are charged with operational responsibilities such as running networks and system migration. This is accomplished by following the strategic outsourcing principles articulated in the first phase.

British Telecom was the choice because of its high-level relationship with the government as well as its experience in the building of backbone systems. BT met the requirement for being a system integrator by partnering with Logica CMG. Another advantage of BT serving as the lead service provider is its understanding of Britain's regulatory environment. To manage risk, the IT plan of the Department of Health has articulated, as a part of the contract process, the need for establishing resource and commitment targets for IT services (Department of Health, 2002, p.27). Also, key performance and availability targets should be established to manage potential problems with poor service levels. As suggested in the process model, integrators are preferred choices for both national and regional service providers. Interoperability with existing systems is critical for the success of a national healthcare system that relies on information from local primary care trusts.

A comprehensive management structure was put in place for facilitating transition. In light of the wide project scope, this structure requires three levels—national, regional, and local—to manage the transition. This large structure is needed to handle both technical and management issues. Technical issues include standardization, data migration, and system integration. Management issues include gaining support of all participating organizations and managing performance. Christopher Bland, Chair of BT, has long recognized the challenges of bringing organizations together that are used to working in silos (Collins, 2004).

Performance management is an integral part of the overall management structure. This moves beyond the dedicated IT performance management team called for by the IT outsourcing process model. At the national level, there is monitoring of the delivery of infrastructure and broadband connectivity targets. Also, a national agency oversees the milestones and performance targets of regional and local services. Chief Information Officers of the regional Strategic Health Authority are responsible for monitoring performance targets and helping local entities to respond to information and IT performance management. Local units, for example, Primary Care Trusts and NHS Trusts, are responsible for managing IT service performance in the areas of implanting national data standards, data interchange, and standard specification systems. The sheer complexity of the endeavor requires a partnership approach in the effort to maintain communication and collaboration among involved organizations—as has been suggested in the process model. Frequent and quality communication is possible when participating organizations share success.

Trends and Future Developments

Best Sourcing is on the Rise

Best sourcing is on the rise for IT outsourcing in Europe. Best sourcing is aimed at meeting the organization's strategic goals by finding the best combination of in-house and service provider expertise and resource. Depending on relative costs and expertise, a best sourcing strategy may combine both onshore and offshore solutions. The search for external IT expertise and resources has recently gone beyond national borders due to the increasing pressure to deliver higher levels of service at lower costs. Best sourcing implies finding the best combination of better services with less cost.

For European countries, global sourcing is likely to continue to grow due to the maturing of offshore sourcing arrangements. Offshore IT sourcing spending for Western Europe alone is expected to grow from 1.1 billion in 2004 to over 3.6 billion in 2009 (Parker et al., 2004). India, Australia, and China will likely be the countries of choice. India, with its combination of language and IT expertise, is likely to be the leader. India may eventually profit from up to 80% of the spending during the period between 2004 and 2009 (Parker et al, 2004). On the other hand, Australia has the language advantage where China enjoys the advantage of having the least-costly IT expertise. Near-shore choices also favor European countries. Ireland, Russia, and Eastern European countries, among others, are competitive due to cultural and regulatory compatibility, language, and niche market expertise. For example, a transportation company in Denmark has worked with Ementor, the largest Swedish IT outsourcing company. In another example, Ireland has emerged as a key location for packaged applications.

Increase in Regulatory and Management Complexity

The landscape of Europe's IT outsourcing has seen increasing regulatory and management complexity as

organizations consider more complex sourcing alternatives with in-shore and off-shore service providers. EU privacy and security regulations governing IT services incorporating the movement of personal data have given rise to increased regulatory complexity. In 2004, the European network and information security agency was established to help EU member states meet the requirements for network and information security. The protection of privacy has been a long-standing tradition of European countries. The 1995 EU Directive on the protection of data on individuals and movement of data became effective in October 1998. The data protection requirements are built on the principles of informed consent and confidentiality. The 2002 EU Directive on privacy and electronic communication further protects the privacy of subscribers of Internet and telecommunication services.¹ For the transfer of personal data to a third-party country, the Commission of European Communities has passed a standard contractual clause to govern such transfers.

Another regulatory consideration involves employment issues. England, the driving engine of IT outsourcing in Europe, has employment protection regulations that govern the transfer of undertakings. Most European countries still have stringent rules on hiring and firing employees (Healy and Linder, 2003). An IT outsourcing arrangement is much more manageable when it only involves the creation of employment opportunities. Using a national IT service provider as a system integrator to work with sub-contractors abroad is another common strategy for dealing with the political implications of offshore sourcing.

Thus, management of IT outsourcing has become more complex as new regulations and best sourcing opportunities emerge. Management must evaluate a large set of IT service alternatives. Moreover, organizations will find it necessary to deal with governance issues as outsourcing IT services becomes strategic and relationship-based.

Recommendations

Adopting a New Mindset Focused on Relationship Management

Managers of IT outsourcing projects need to adopt a new mindset focused on relationship management. The focus on relationship requires a serious look at the organization's strategic goals and those of the IT service providers. Finding a good strategic fit is critical for success. The relationship-based approach moves beyond one-time procurement thinking and seeks to map out a long-term relationship. This is closer to reality since most IT outsourcing projects span over at least five years. For example, many of the National Health Service's IT outsourcing deals are in the ten-year timeframe. Another important aspect of relationship management involves sustaining resources for transition and performance management. An on-going relationship requires frequent adjustments, depending on market conditions and changing service needs. Thus, a performance management team is needed to maintain quality and frequent communication.

Building Management Capacity for Global Sourcing

Management capacity is critical for the success of IT outsourcing. Organizations first must treat IT outsourcing management as a critical strategic component. The pressures to provide cost-effective and quality service are mounting, not only for European companies, but also for governments. At the same time, inside and outside Europe, opportunities exist for taking advantage of economies of scale in IT services.

Building IT outsourcing management capacity is important for realizing the benefits of IT outsourcing while minimizing risks. IT outsourcing management capability lets the organization conduct constant scanning of the global market of IT service providers. This also entails contract management capacity in the area of establishing necessary governance structures that address, for example, performance measurement, security, and privacy. More importantly, the management team should engage in continuous service improvements by aligning outsourced IT services with the organization's goal.

Working with System Integrators with Key Capabilities

System integrators are the preferred choice when system migration and integration are the main tasks in

an IT outsourcing project. In most cases, system migration and integration constitute an important part of an IT project.

System integrators have the advantage of flexibility when choosing the right platform and/or application for the organization. They can select from various IT service providers to put together a custom package. For example, British Telecom worked with Sun Microsystems, Oracle, and Logica CMG to provide desktop, database, and system design and integration.

Moreover, system integrators can serve as a single point of contact for the organization. This helps the organization deal with management and regulatory complexity, particularly when global sub-contracting comes into play. A capable system integrator must be able to deal with multiple layers of management structures in the host country and abroad.

Adhering to the Process Model

The process model presented in this report can serve as an excellent guide for mapping out the phases and issues involved in conducting successful IT outsourcing. The model provides a methodology, posing at the outset the most important question of how the sourcing strategy will help achieve the organization's strategic goals. Even prior to selecting IT service providers, the organization first must analyze its sourcing needs and formulate an operational relationship that supports a collaborative arrangement. Once sourcing needs and management structures have been determined, the organization then selects IT service providers and negotiate a service-level contract. Transition is a separate phase due to the amount of effort involved in system and data migration. Performance management incorporates continuous service improvements, usually spanning some five to ten years.

Adhering to the process model forces an organization to think through the important issues and allocate resources needed for IT outsourcing. In practice, the emphasis on preparation even prior to selection is of great value, as can be seen in the case of Britain's National Health Service modernization project.

Bibliography

- Antonucci, Yvone Lederer, Frank C. Lordi, and et al. (1998). The Pros and Cons of IT Outsourcing. *Journal of Accountancy* 185(6):26-32
- Bendor-Samuel, Peter. (2002, May). "Building Relationship Around Service Provider Strengths." *Outsourcing Journal*. http://www.outsourcing-journal.com/issues/may_2002/everest.html [Accessed May 16, 2002]
- Chen, Yu-Che and James Perry. (2003). Outsourcing for E-Government: Managing for Success. *Public Performance & Management Review* 26(4):404-421.
- Collins, Tony. (2004, March 23). Is the National Programme for NHS IT Set to Be 'The Biggest Gamble in the World'? *ComputerWeekly.com*. <http://www.computerweekly.com/Article129349.htm#> [Accessed June 14, 2004]
- Department of Health. (2002, June). *Delivering 21st Century IT Support for the NHS*. London: Department of Health.
- Gartner. (2004, March 16). *Outsourcing Goes Global in Difficult Market*. Gartner 2004 Press Release. http://www4.gartner.com/5_about/press_releases/asset_63079_11.jsp [Accessed June 14, 2004]
- Healy, Thomas and Linder, Jane. (May 2003). *Outsourcing in Government: Pathways to Value*. Accenture.
- Lee, Matthew. (1996). "IT Outsourcing Contracts: Practical Issues for Management." *Industrial Management and Data Systems* 96/1: 15-20
- McCue, Andy. (2003, August 14). *IBM to Give Health Service a Face Lift*. http://news.com.com/IBM+to+give+health+service+a+face-lift/2100-1011_3-5063842.html. [Accessed August 30, 2004]
- McIvor, Ronan. (2000). "Strategic Outsourcing: Lessons from a Systems Integrator," *Business Strategy Review*, 11 (3): 41-50.
- Parker, Andrew; Metcalfe, David; Mendez, Manuel Angel, and Takahashi, Sonoko. (2004, July 7). *Mapping Europe's Offshore Spending Impact*. Forrester. <http://www.forrester.com/Research/Document/Excerpt/0,7211,34932,00.html> [Accessed October 1, 2004]
- Rubin, Howard . (1997). "Using Metrics for Outsourcing Oversight." *Information Systems Management* 14(2): 7-15.
- Sun Microsystems. (2004, February). *British Health System Aims to Improve Care and Contain Costs*. Sun Microsystems. http://www.sun.com/br/0204_ezine/hc_nhs.html. [Accessed September 15, 2004]

Endnotes

¹For more information on the EU Directive on data protection, visit www.cdt.org/privacy/eudirective.

²The official title of this document is "Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002". It is concerning the processing of personal data and protection of privacy in the electronic communication sector (Directive on Privacy and Electronic Communication). This document can be found in the *Official Journal of the European Community*.

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