There is a natural limit to how IT can generate economic benefits and increase corporate value: It’s IT cost. Many value-oriented IT projects are discontinued, not because the resulting benefits cannot be quantified but because the company’s focus has shifted. And this shift does not necessarily have to include changes in the long-term corporate strategy, as would be caused by external developments in market and competition: To produce less-than-positive effects, all a company needs to do is shift its focus from IT growth drivers to IT-driven cost reductions, as often happens in times of economic downturns or internal restructuring.

Companies taking this route lower their chances for future growth and value increase. Therefore new IT projects, as well current IT operations, should be benchmarked and prioritized as early as in the planning phase (cf. Part B, Chapter 2, ‘IT Planning’). A continuous IT optimization on this basis – including everything from IT applications to IT infrastructure to strategic IT sourcing – offers numerous possibilities to lower IT cost without jeopardizing an optimal support to business processes.

In addition to these efforts to optimize the cost/benefit ratio of IT, companies can also obtain savings in IT procurement – either by establishing (‘spinning-off’) internal IT service providers or by outsourcing IT services. It will depend on the development stage of the company’s IT landscape what needs to be done most urgently:

- **Stage 1: Fragmented IT.** The greatest optimization potential – and the most pressing need for action – will exist at companies operating without valid IT standards, and with IT departments that do not understand the need for IT architectures: The resulting diversity of IT applications and infrastructure will drive up IT costs and limit IT performance. At this stage, IT sourcing decisions are often triggered by requests from technical departments and justified with available budget reserves, and there is little flexibility for ‘unplanned’ IT purchases. As a result, the costs of IT procurement tend to be high. The IT and business departments have not agreed on target service levels or performance figures, so service quality is rather poor. There are no customer analyses, and users do not really expect to get effective IT support if problems occur in day-to-day business.

- **Stage 2: Cost oriented IT.** At this stage, standards have been established for individual business units, limiting at least the costs of IT applications. Some cost reduction opportunities are also exploited in IT procurement – provided it really adheres to those standards and do not tolerate a multitude of exceptions and individual solutions, as will often be the
case at this stage. As far as IT service levels are concerned, some basic performance figures have been introduced which, however, are not used as a basis for service agreements between the IT and business departments; as a result the support is still inadequate. All user requests are accepted and dealt with in succession, without any prioritization, providing some degree of user support in day-to-day business. Cost reduction opportunities through IT outsourcing are seldom used at this stage.

- **Stage 3: Standardized IT.** At this stage, corporate standards have been introduced and architectures have been developed which are scalable in certain areas. IT, thus, is largely standardized. While procurement is based on the standards defined for IT architecture, there is no obligation for the divisions to adhere to these standards, resulting in additional costs through individual purchases. In some cases, IT is outsourced to external firms - not for cost reasons but to bridge resource gaps. IT support to the business processes is enhanced by exchanging selected staff members between the IT and business departments; its quality is, however, difficult to assess since most service agreements and performance figures – obtained through sporadic customer surveys – are rather informal. When dealing with requests, IT staff make sure to tackle core issues first, which is a major improvement to user support.

- **Stage 4: Optimized IT.** At this highest development stage, company-wide standards for hardware, software, and networks have been communicated and accepted, and architectures have been introduced which are expandable in certain parts. This way, excessive costs are largely avoided in both, IT applications and infrastructures. IT procurement actively exploits cost savings opportunities by adhering to the corporate standards and allowing very few exceptions only. In global procurement the company employs strategic sourcing techniques; all IT projects undergo rigorous make-or-buy analyses. A tight linkage of IT to the company’s business activities is promoted by staff rotation, both within the IT department and between IT and the business units (and vice versa). It is further supported by incentive agreements and programs for proactive employee development and technology training. Service level commitments, quality and efficiency criteria have been introduced and are monitored on a regular basis. Internal customers’ perception of internal service levels is regularly analyzed and measured. To ensure optimal support for users in day-to-day operations, quick-response teams have been installed which deal with incoming requests according to their business relevance.

At each of these four stages, there is considerable potential for IT optimization and a professional management of internal and external IT service providers. Its goal must always be to decrease cost in such a way that the value potential of IT for the company is never adversely affected. After all, the purpose of utilizing IT is to increase corporate value!
1. IT Optimization – Reducing Costs without Diminishing Returns

IT today plays a major part in reaching business objectives. Many companies realize its importance when business processes don’t run smoothly, or when IT projects run over budget or time. Difficulties like these often result from heterogeneous IT landscapes, characterized by different application systems in similar functional areas, several hardware platforms, decentralized IT departments without central coordination, or insufficient IT service levels. The consequences are severe: IT users are dissatisfied; top management perceives IT to incur high costs while delivering poor value.

To avoid this, CIOs need to install a process to permanently increase IT efficiency – just like any other corporate activity is regularly examined for its value contributions and cost savings potential. However, their degree of liberty is likely to depend on the current state of the business: In fat times they will be free to give high priority to the creation of a flexible IT landscape, even if it requires a great deal of time and investment, and to consider its costs in relation to the benefits expected; in thin times IT-driven cost savings will become a top priority, while the operational obstacles resulting from a lower IT service level will now rank second – the motto being ‘So long as our IT is running, it serves the purpose.’

The objective of IT optimization is to ensure the best possible IT service for internal customers at lowest possible costs. Depending on the individual company, optimal IT support for business processes can either consist in flexibility and responsiveness to changing external conditions, or in superior efficiency leading to minimal unit costs in mass processes. In order to allow for IT to unfold its positive effects on business processes, a best possible IT performance also includes optimal support for end-users whenever problems occur in day-to-day operations. All that, of course, while keeping the life-cycle costs of IT systems as low as possible.

Optimizing IT, therefore, does not equal cost reduction. Reducing the costs of IT can only refer to a cost block which, depending on the industry, comprises one to seven percent of a company’s total cost. IT cost reductions reach their limits when further efforts would curtail the benefits of IT for the company’s business. This might best be illustrated by a simple thought experiment: Companies’ IT cost would be lowest (namely, zero) if they simply switched off their IT and closed down their IT departments. Of course, the benefit of IT would be reduced to zero as well. This exact scenario threatened to become reality in the context of Y2K. To avoid that risk, many companies invested enormous sums to ensure the availability of their IT. Company managers do know about the benefits and value contribution of IT. Encouraging them to reduce IT costs, therefore, usually means asking them to make appropriate ‘cuts’ which will continue to ensure IT functionality while leading to a clear cost alleviation.
IT cost reduction requires a meticulous evaluation of current and targeted IT costs. In most cases, traditional analytical tools will be too coarse for this purpose – cost structure analyses and IT-cost benchmarking may serve as starting points for a cost reduction debate in IT, helping to roughly assess whether IT costs are on an appropriate level, and define a target corridor for future IT costs. Based on these findings a more profound discussion will be necessary, comparing IT benefits against IT costs and analyzing the existing IT landscape – including existing IT-related dependencies, as well as the opportunities resulting from new developments.

1.1 Strategic IT Cost Analysis: Finding the Right Leverage Points

In order to avoid ‘economizing’ those IT applications and infrastructural components that are crucial to a value-added use of IT, the entire IT landscape – including infrastructure and applications – and its key components must be subject to a thorough value analysis. Three dimensions of value are examined (figure 33):

- **Contribution to corporate value**: This dimension reflects the importance of the respective IT component to the company. For instance, a company wishing to develop new markets will find flexible infrastructures, expandable applications, and sales support more important than sophisticated HR applications. Consequently, this part of the analysis will derive company-specific criteria from corporate goals, requirements to business processes, and performance figures – such as support for strategic goals, coverage of business processes and functionalities, importance of business processes and functions to company performance, or the prevention of process disruptions by integration.

- **Technological suitability of IT components**: This dimension of the analysis is included to avoid further upgrading of technologically outdated IT components, and to ensure that companies invest in the right IT applications and infrastructural components. Available capacities, utilization, life-cycle and age of the application or hardware component, its conformity with the state-of-the-art and its complexity are only some of the criteria that may enter into the technological evaluation.

- **Overall costs for the company**: This part of the analysis covers the costs of an application system or a hardware platform over its entire life cycle. Should these data not be present in the company, at least the annual costs of operation, licensing, and maintenance will be analyzed.
Positions in the matrix indicate where IT cost reduction efforts would be appropriate and where they should better be avoided for the sake of a sustainable, future-oriented IT support.

- **Catch up on investments:** IT components in the upper left corner are highly important to the company, yet current IT support is inadequate. It will therefore be advisable to intensify investments in order to diminish or eliminate existing shortcomings, so that the potential benefits of IT can be better exploited for the company. In the energy industry, for example, distribution systems rapidly gained importance once the liberalization of the market had set in. Existing systems for the ‘administration’ of ‘purchasers’ no longer represented a suitable technology. Huge investments were overdue and, in part, still are.

- **Exploit benefits:** The upper right-hand field contains IT components that are well positioned from both, an entrepreneurial and a technological perspective. Instead of cutting costs here, companies should look for ways to use these applications and infra-structural components in more business areas in order to fully exploit their benefits. In addition, these IT components should continually be developed further, as their performance, utilization, or the requirements of business processes change over time. A highly diversified group in the construction and plant engineering business used a sophisticated project management system for its made-to-order plant production, while its construction business
lacked a functional IT system for managing complex construction projects. As both divisions worked on similar business principles – such as made-to-order production – the company adapted the IT system from plant engineering and introduced it in construction. This way, the benefits of an existing application could be exploited much more effectively.

- **Limit investments**: Companies should invest very selectively, if at all, in IT components which are state-of-the-art yet contribute little to corporate value. It is often due to changed business processes – or simply over-investment – that IT applications or infrastructural components have ‘slipped’ into this state. For instance, if customer orders were formerly accepted and recorded by a central department, whereas they are now largely entered locally via the Internet, a central order entry system will have lost all significance to the company, even if its technological platform is state-of-the-art.

- **Currently well-balanced, continue**: The center field comprises IT components delivering an adequate contribution to corporate value. There is a sound balance between investments and IT benefits. This is often the case with IT systems for corporate support processes. For example, the financial accounting system of a manufacturer must work quickly and reliably but will not necessarily have to be top-notch. In such cases, standard business software will usually serve the purpose.

- **Monitor; selectively invest or single out**: This refers to IT components which contribute only little to corporate value and are in a poor technological condition, which may, for instance, be reflected by poor reliability. Possible examples include IT components which have reached the end of their life-cycles, are no longer required, and might just as well be shut off, or IT components which must better be aligned with business unit requirements. Should the latter be the case, the company will need to check how focused investments could be used to improve the technological condition and increase the value contribution to the business. One example: Even today, some 10 years after the launch of SAP R/3, remainders of the precursor system SAP R/2 can still be found on companies’ premises. In most cases the system is no longer in active use; rather, it sort of ‘runs along’ for information reasons, due to the fact that old data were not incorporated during the previous system integration. SAP R/2 is frequently the last mainframe application left in the company, with corresponding serious cost implications. The question here will be whether to completely terminate these applications – are the data really still needed? – or whether to invest in a suitable archiving system to replace the outdated one.

This systematic analysis and evaluation of the IT landscape provides a sound basis for IT cost reduction measures. We will take a closer look at two areas – IT applications and IT infrastructure – as these IT components are the main drivers of IT costs and any cost reduction efforts will have to start here.
1.2 Reducing Costs in IT Applications

Prior to cost reduction efforts in IT applications, most companies are in the same kind of situation: Their software landscape is a mix of proprietary developments and standard solutions which have proliferated over time. In the course of the years, business focuses have shifted, business units have been restructured, added, or sold, and business processes have changed. New applications have continually been added to meet changing requirements, and previous applications have become obsolete. If standard software is used at all, the different subsidiaries or divisions often use different systems tailored to their needs, and licensing and maintenance fees for these systems are a heavy burden on the budget.

This fragmented application landscape curtails the benefits of IT for the company – for example, because the logistics data required for supply chain optimization are ‘hidden’ in many different systems using incompatible definitions. In situations like these, the need for system harmonization is obvious. If the organization comprises several divisions, country operations, or subsidiaries, a systematic process to reduce IT application costs should begin with harmonizing business processes, thus preventing unnecessary IT expenses from the outset. Harmonizing the IT application portfolio will be the second step.

1.2.1 Harmonizing business processes

Companies with a history of M&A-driven growth often face a very heterogeneous business process landscape, even if business models are in part very similar. One example: A manufacturer had acquired several regional sales organizations which were managed as independent entities. All of them essentially had the same business model and were selling the same product to end-consumers. Each regional organization, however, had its own business processes for functions like procurement, payroll accounting, or controlling. This resulted in different requirements to IT support, covered by different ERP systems – which, however, served the same functions due to the similarities in business models. This is not a rare case: Many large companies simultaneously work with systems by SAP, Baan, JDEdwards, Oracle, proprietary developments, or several different systems by the same provider, resulting in multiplying costs for system launch, operation, maintenance, and licensing.

Moreover, different business processes for identical activities make it difficult to compare performance figures, as they are based on different data sources and calculated in different structures and methods. The same is true for logistics and financial data. Interfaces are often managed manually – or specifically programmed at great expense – and the business units keep to themselves, rather than working closely together. These situations call for a harmonization first of business processes, then of IT applications.

Harmonizing business processes is much more than a means to reduce IT costs: Many corporate strategies virtually depend on the availability of company-wide data and harmonized – in
the case of service providers, even standardized – business processes. Purchasing, for instance, needs clear information on what materials or products have been purchased from what suppliers at what price, in order to determine for each material category whether the bundling of purchase volumes would be helpful to negotiate better prices with suppliers. By the same token, sales and marketing need comprehensive information on all customer interactions to design a consistent customer interaction strategy and build brand awareness. In an equipment-intensive manufacturing business, production scheduling and production controlling need up-to-date information from all sites, for instance on plant utilization and inventories, in order to permit the integrated optimization of production scheduling procedures.

Savings potentials from harmonizing business processes are enormous in both, IT and the business itself. Case examples suggest procurement cost savings in the order of over one hundred million Euros for a total procurement volume of approximately one billion Euros, achieved by bundling purchasing volumes across several business units, in addition to 50 to 70 percent cost reductions in IT systems, achieved by transferring the new, harmonized procurement process to one single system and switching off the previously used, redundant purchasing systems.

Tips for harmonizing business processes:

*Involve business departments:* In harmonizing business processes, business departments and IT need to cooperate very closely – departments bringing in their knowledge regarding the business functions of the respective division or unit, IT contributing cross-functional know-how on the informational linkage between them, as well as on new IT design options.

*Facilitate change through change management:* In the context of harmonizing business processes, traditional liberties of business units or subsidiaries will be curtailed to obtain a better cost or performance position for the overall company. Roles and responsibilities change. Top management support will help to facilitate this change.

On the other hand, harmonizing business processes requires enormous effort and expense, justifiable only through sufficient savings potentials in IT and business units. The necessary changes in IT (such as the introduction of a company-wide supplier portal to facilitate a harmonized purchasing process) usually trigger further changes in other units (such as tighter supply chain linkages with suppliers to reduce inventories).

One thing is certain: Reducing IT costs by replacing the existing heterogeneous IT landscape with a new one, based on harmonized business processes, initially costs money – sometimes enormous sums. However, as the economic benefit potential is usually much higher, it can easily ‘pay’ the required IT investments in new system introduction, data migration, and change management. And while the original motivation behind all these changes is to reduce IT costs, at the end of the day the overall economic benefit achieved by harmonizing business processes will include much more.
Optimization of business processes in a chemical company

A chemical products supplier had achieved domestic growth by acquiring several subsidiaries. Each of the new business units enjoyed great degrees of freedom with regard to the design and IT implementation of business processes. A harmonization of controlling and financial processes was initiated, starting with a search for cost reduction potentials.

Originally, the controlling and financial departments had comprised more than 500 people and used almost eight different IT systems. A thorough analysis of controlling and financial processes revealed that, while all of them were aligned towards the same process targets, they used very different working tools (such as account charts or costing sheets) and different processes (for example, for data entry).

Since process targets were identical and corporate guidelines called for identical procedures particularly in costing, business processes were harmonized: Account charts were adapted, costing sheets largely standardized, costing procedures coordinated, evaluation methods aligned, and the detailed processes within the controlling and finance departments, as well as the interfaces with up- and downstream IT systems were largely standardized.

Once this had been completed, an integrated IT landscape could be designed and implemented for all subsidiaries, based on the most up-to-date system among those already used. As a result, the number of IT systems – including those for controlling, general ledger, accounts receivable, accounts payable, and asset accounting – was reduced from eight to one. A new central organization unit entitled ‘Shared Financial Services Center’ was established and the staff of the previous units transferred.

These measures enabled the chemical company to achieve substantial savings in IT and process costs for controlling and finance. At the same time, the improved data transparency and higher speed of controlling and finance processes helped to reduce the total volume of receivables. The payback period for related IT implementation costs was less than two years.

1.2.2 Standardizing and consolidating IT applications

Standardize first, and then consolidate – this approach will help exploit the greatest savings potential. In many cases, the existing IT portfolio has very heterogeneous over time. This is true for both, shared applications for logistics and financial management (frequently referred to as ‘commercial IT’) and special IT systems for particular business requirements (such as CAD/CAx systems in engineering companies, bioinformatics systems in pharmaceutical companies, or process control systems in conventional and nuclear power plants). Even on users’ PCs and workstations (as well as PDAs and other devices) we often find quite complex application landscapes: Microsoft worlds coexist with Macintosh worlds; in addition, Linux
is currently making an entry into companies and government agencies and, needless to say, many users keep a regular potpourri of specialized applications on their PCs.

This diversity drives up the costs of applications in many ways:

- If there are several different IT applications for a given application purpose, costs for their implementation, operation, licenses and maintenance multiply

- Different IT applications usually require people with different qualifications and only limited possibilities of substituting for one another. If staffing levels are low this also results in a great degree of dependency on the know-how of individual persons.

- Different applications often lead to inconsistent and frequently intransparent data files which, in turn, require a variety of interfaces

The data from different applications remain uncoordinated. While it is basically possible for a data warehouse to solve resulting problems by making the data comparable in retrospect, this will further increase IT costs.

Multiple applications usually cause multiple interruptions to business processes, mostly involving media breaks and, on the users’ part, a lack of information with resulting uncertainties in decision-making.

Different application landscapes on PCs require broader qualifications and more staff for user support at the call center; in addition, they raise the cost and complexity of data protection and data security.

Effective IT management in the applications area therefore calls for reducing complexity, as well as standardizing and consolidating the application landscape wherever possible. For large business applications (in particular those used in logistics and finance) this involves two major steps: One is to look for identical application areas across divisions or subsidiaries; the other is to identify cross-functional, integrated systems along the value chain. As far as PC applications are concerned, strict standards must be set for admissible applications. At times when budgets are tight, measures like these will help to make room for necessary IT investments.

**Tip for standardizing IT applications:**

*Make sure your business case accounts for possible monopoly positions of software suppliers:*

Standardizing IT applications will intensify your dependency on one or few software suppliers. They will obtain a monopoly position vis-à-vis your company – and, changes of suppliers are always costly, this monopoly situation is often exploited via excessive licensing fees or poor service. Make sure to take account of these negative effects in your business case for the standardization of applications.
Implementation begins with the step-by-step migration of data, after which applications that have become obsolete are switched off. PC workstations need to be cleared in the context of the next upgrade, or as a special action carried out company-wide. For central business applications it should also be examined whether, on the occasion of this renewal initiative, outdated or ‘exotic’ hardware components should be ‘cleared out’ and switched off as well, which would help to further increase the effects of the IT cost reduction. For instance, once the last application has been migrated from the mainframe computer to the client/server environment, switching off the mainframe will enable the company to save on operating expenses, as well as licensing and maintenance fees.

**Standardization of application systems at a manufacturing company**

At a large group operating in the manufacturing sector, the number of application systems had grown to over 3,000 in the course of the years. In production alone, more than 1,000 applications were in use, as well as almost 100 in accounting, and nearly 200 in HR. Most applications were no longer up-to-date, their average age being around 10 years. These outdated applications caused enormous costs: IT expenses for their operation were 50 percent higher than those of comparable companies, the complexity of the application landscape was hardly manageable.

By standardizing applications, the company managed to reduce the number of applications systems by more than 40 percent. IT costs were reduced by an even higher percentage, as one hardware platform became obsolete and the number of different database types could be reduced.

Such ‘cleaning-up efforts’ offer the most potential when performed in the context of a post-merger integration: In the case of a merger between two companies operating at the same stage of the value chain, over 60 percent of existing IT applications and almost 60 percent of the related costs could be saved (figure 34. Before, the companies had used different systems for virtually identical tasks – one of which was now simply dispensable.

The limit of all standardization and clearing efforts has been reached once IT-related changes clearly start affecting the business. Therefore close cooperation between IT and the business departments is indispensable, not only in harmonizing business processes but also in standardizing and consolidating IT applications. If, for instance, the IT department demands controlling systems to be ‘cleared out’, this change – and the resulting savings in IT costs – can be accepted or rejected by the business departments. By this we do not mean to say, however, that changes to IT systems should be the responsibility of the business departments. Rather, IT departments tend to be much too hesitant in using their right to suggestions: In many cases, they could have much more influence than they actually do.
Another limit for the standardization and consolidation of IT application systems has been reached once any further action would start having negative effects on individual divisions or subsidiaries. Standardization is not an end in itself – its purpose must always be an improvement of costs and benefits to the company. In large groups we often find that headquarters, for many good reasons, wish to introduce one integrated ERP software which, however, would simply be over dimensioned for a medium-sized subsidiary. In this case a possible solution could be to equip the subsidiary with a suitable IT system for medium-sized organizations, and link it to the group’s IT solution via standardized interfaces. Alternatively, if an integrated solution offers substantial benefits to the group – for instance, by enabling it to build an integrated supply chain – this might justify granting financial support to the subsidiary for implementing the group’s standard system.

In short, standardizing application systems offers considerable potential for IT cost reductions and increases the benefits of IT by using fewer, better coordinated data files. Chances for a successful implementation are best if business processes have been harmonized beforehand. The standardization of IT applications can be immediately followed by a standardization of the IT infrastructure.
1.3 Reducing Costs for IT Infrastructure

When we talk about IT infrastructure we refer to all those IT components which, contrary to IT applications, are not visible to the user – such as database systems, operating systems, mainframe and client/server systems, LAN/WAN communication systems. To simplify matters, we are also including PCs, notebooks, and printers, as well as email systems and other systems of structural importance for the communication flow in an organization.

An analysis of companies’ IT costs often reveals situations like this: All in all, more than 20 different types of PCs and printers from over 10 different suppliers are in use, as well as several database systems, development environments, and programming languages. Operating systems include several versions of Windows, as well as UNIX, AS/400, sometimes still OS/360, and more recently also Linux. Not surprisingly, large groups – especially those with a history of M&A-driven growth – are particularly prone to heterogeneous IT landscapes.

Uncontrolled growth of this kind costs time and money; during projects it also ties up scarce development resources in the IT department. Moreover, it is not advisable from a strategic point of view to maintain, for example, several different email systems in a company or group, as this will obstruct communication flows between the individual divisions and entities, and slow down the organization’s speed of reaction.

1.3.1 Standardizing the IT infrastructure

There is one key principle for IT infrastructure: comprehensive standardization. It enables companies to reduce IT costs for all those IT components which users are not even aware of (such as client/server systems) and/or which, due to their overriding structural importance to corporate communications, must be standardized at any rate (such as email). In the case of PCs, notebooks, and printers, standardization leads to better replaceability, better service, and lower cost, which is why it usually makes sense to standardize these components as well. In exceptional cases, the business case will have to compare the costs of complexity against the benefits expected.

Among other things, standardization best practice calls for one single email system for the entire organization, standardized PC and printer configurations for all users – limiting the number of suppliers to between one and three, depending on the current procurement situation – and the elimination of old systems with specific programming languages and special, expensive runtime environments (hardware, operating systems, networks). The rule of thumb is: The more standardized the better. Rather than trying to cover each and every IT requirement of each individual IT user or user group, the overriding goal must be to determine adequate, overall reasonable workplace equipment which will be standard for the majority of all IT users.
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Figure 35: Areas of standardization and potentials

Standardizing the IT infrastructure enables companies to reduce the number of variants by 50 percent on average, and to reduce IT costs by 20 to 30 percent within a year or two (figure 35. In addition, it is a prerequisite for reducing IT costs by establishing Shared Services centers, or by centralizing or outsourcing computing centers. Companies with a high degree of external growth, or striving for internationalization, should standardize their IT infrastructure.

In addition to cost reductions, standardization offers plenty more advantages – such as a more consistent IT infrastructure: It enables employees on business travel to link themselves into the corporate network with their notebooks from any of the company’s offices, and exchange documents with colleagues worldwide, based on a standard IT application package and email system. In this case, standardization will greatly improve the benefits of IT for both, individual users and the company as a whole, at limited extra cost.

Standardization and consolidation of IT application systems at a manufacturing company

| Category               | Original situation (2000) | Target architecture (2002) |
|------------------------|---------------------------|----------------------------|
| Hardware               |                           |                            |
| Terminals              |                           |                            |
| PCs: IBM, Compaq, Siemens | Midrange: IBM, Sun Compaq | IBM 9272 R45 Siemens        |
| Network                |                           |                            |
| Novell 5.1             |                           |                            |
| X.25, X.400            |                           |                            |
| X.21, G703             |                           |                            |
| Ethernet               |                           |                            |
| Token-Ring             |                           |                            |
| CISCO                  |                           |                            |
| Network                |                           |                            |
| Windows 3.1            |                           |                            |
| Solaris, AIX           |                           |                            |
| OS/390, OS/2           |                           |                            |
| Network                |                           |                            |
| System software        |                           |                            |
| ADABAS DB/2           |                           |                            |
| Small-world           |                           |                            |
| Network                |                           |                            |
| Standard software      |                           |                            |
| SAP R/3               |                           |                            |
| PAISY                  |                           |                            |
| PT-Com                |                           |                            |
| Operating costs of IT infrastructure (p.a.): | 35 mil. Euro | -23% | 33 mil. Euro |
|                       |                           |                            |
| Operating costs of IT infrastructure (p.a.): | 35 mil. Euro | -23% | 33 mil. Euro |
|                       |                           |                            |
| Standard software      |                           |                            |
| SAP R/3               |                           |                            |
| Ediflex               |                           |                            |
| Valex                |                           |                            |
| FAME                 |                           |                            |
| Operating costs of IT infrastructure (p.a.): | 35 mil. Euro | -23% | 33 mil. Euro |
|                       |                           |                            |
| Operating costs of IT infrastructure (p.a.): | 35 mil. Euro | -23% | 33 mil. Euro |
| Standard software      |                           |                            |
| Operating costs of IT infrastructure (p.a.): | 35 mil. Euro | -23% | 33 mil. Euro |
|                       |                           |                            |
| Operating costs of IT infrastructure (p.a.): | 35 mil. Euro | -23% | 33 mil. Euro |

A manufacturer of heat and air conditioning equipment operates several production sites across Europe, as well as sales organizations in every European country. In 1997, the company’s IT – like that of many large group – was highly fragmented: Decentralized IT re-
Responsibilities over the years had resulted in a heterogeneous infrastructure at all levels—from workplace systems to server and even mainframe platforms.

In the course of a company-wide efficiency program, the IT infrastructure was examined for cost reduction potential and radically standardized. This effort placed particular emphasis on workplace systems: While users had formerly worked with PCs configured to their preferences, the company now introduced three types of standard workplaces: One type, which was entitled ‘Common’, comprised Office components for text, graphics, and spreadsheet analysis, as well as the SAP front-end SAP GUI and the standard mailing system. It was introduced for almost 90 percent of users. Another workplace type, entitled ‘Advanced’, was additionally equipped with organizer software. The third type, which could be configured quite flexibly, contained special components such as development tools for IT personnel.

1.3.2 Centralizing IT infrastructure and consolidating computing centers

Standardization efforts in companies’ IT landscapes are often a first step towards centralizing the IT infrastructure and additional IT services. Once hardware and network components, applications, and IT services in the different locations have been standardized, a logical next step will be to centralize selected topics, thus ensuring a better use of under-utilized resources, the bundling of know-how, and an increase in service quality.

Typical candidates for IT centralization are companies with numerous small locations worldwide or numerous remote users. In these companies, individual IT infrastructures and internal support organizations cause considerable costs for each location, as well as skill deficits in the local IT staff—for example, if each location has its own email and file/print server(s) and each server houses additional capacities for individual data back-ups. Local and regional application servers are usually not coordinated, housing only few applications which are only centralized locally. Many application servers are not archived; frequently there is only marginal protection against unauthorized access and viruses. These are just a few examples.

In addition to an increased service level, resulting from a more efficient IT infrastructure and IT support organization, standardizing and centralizing the IT landscape will also lead to considerable cost reductions. Resources maintained to cover utilization peaks can be bundled, thus better tailored to existing capacity needs, and used more effectively. This applies to server, back-up, and network capacity, as well as IT expert know-how. A decentralized IT unit usually cannot afford to employ IT experts for everything, from the entire spectrum of security issues to data warehouse concepts. If this know-how is bundled centrally, employees at local organizations can dedicate their capacity to value-added IT tasks. This bundling of know-how does not necessarily have to imply physical centralization—rather, the concept of the virtual organization provides local entities with the flexibility to assign both, central and local projects to their IT staff.
Tips for the centralization of computing centers:

Retain control rights:
Business units giving up their computing center will probably fear a deterioration of service quality; they should therefore be given certain control rights over the corporate computing center.

Avoid loss of “customer proximity”:
At the previous computing center locations, “internal customers” will no longer find local contact persons to approach with their concerns. To close this gap, a centralized support structure with long service hours and agreed service levels should be established.

Prevent staff fluctuation: To avoid a know-how loss caused by IT staff leaving the company, relocation plans should be communicated proactively and employees should be involved at an early stage of the decision process.

Ensure system stability:
Concentrating IT computing in one place will result in higher demands to server and network reliability. Hardware and network architectures with redundant systems and varied back-up solutions are usually helpful.

Centralization, however, first of all means investments – for it will include the relocation of hardware and computing centers, as well as the restructuring of the entire IT architecture. New requirements will result with regard to hardware dimensioning, network capacity, performance, and system stability. Savings achieved through centralization must therefore be offset against potentially increased communication costs.

To quote an example from practice: The decentralized infrastructure of a large service provider, which had comprised 125 servers worldwide in 1999, was restructured to a total of 12 centralized servers within three years. Results were impressive: Due to improved server availability, employees now had much better access to central data files and applications; in addition, network performance – which was crucial for field service staff – was greatly improved; systems were equipped with much better back-up functions and highly redundant structures. In IT operations, many processes could be simplified, and the reduction in complexity was reflected in substantial cost savings.

There can be two types of limits to the centralization of IT infrastructures: One lies in the existing geographic conditions (for instance, if a country’s communication infrastructure is inadequate); the other follows from the overriding corporate strategy: If, for instance, a company plans to spin off a certain division, it would be a mistake to centralize the IT infrastructure of that division, as this would lead to unfavorable dependencies which would later have to be eliminated in the context of an IT disintegration.

One type of IT centralization practiced quite frequently is the consolidation of computing centers. In one case, integrating four computing centers, who had previously been in different locations within the same country, led to cost savings of over 30 percent. In our experience,
savings potentials for ongoing computing center operations will amount to between 15 and 40 percent, depending on the number, size infrastructure, and existing capacities. Additional advantages result from the creation of one single platform, as well as improved support and shorter project launch periods.

Centralization of computing centers at four financial service providers

Four companies from the financial services industry decided in 2000 to cooperate in the IT area. At the time, the companies were using different banking systems, as well as expensive customized solutions for sales, integrated bank management, and other purposes; they also operated four independent computing centers.

The companies started their cooperation by focusing on the computing centers – on the one hand because they seemed to offer enormous potentials to be quickly exploited, on the other hand because business processes would remain untouched and therefore the risk involved would remain calculable. In parallel with the computing center consolidation, several comprehensive optimization measures were taken:

- System architectures were strictly standardized to create a basis for efficient production.
- Redundant tasks, such as infrastructure stability, system and network design, network operation and management were consolidated.
- Licensing and maintenance costs for hardware and software were optimized promptly.
- Previously separate tasks such as release management, change management, system and network stability were selectively merged.
- The working hours required for servicing the standardized hardware – including hardware and software support, communication software, back-up/disaster management – were reduced.

Within a year, these measures enabled the banks to save around 15 percent on their computing center costs. Benefits consisted in a consistent and high service level, a broader know-how base for the systems used and, as a result, noticeable quality improvements in production. New requirements could be met faster, due to the effective management of interfaces with the units in charge of new applications. Both, the release and change management were optimized through consistent project control.
1.4 Exploiting Cost Savings Potential through Strategic IT Sourcing

Information technology – hardware, software, services – is an asset like any other, in that its procurement can be optimized. However, this opportunity is often neglected. In many cases, the IT department does not involve purchasing when making new acquisitions; subsidiaries buy whatever they feel like buying, without bundling purchasing volumes to negotiate better prices; often purchasing is simply not qualified and therefore unwilling to take responsibility for the procurement of a complex and heterogeneous asset like IT. In contrast to the mostly sophisticated procurement procedures in other categories, cost savings potentials resulting from strategic IT sourcing are, in our experience, seldom exploited.

At a European service provider which had enjoyed considerable external growth, the formerly separate business units procured IT services from numerous suppliers and manufacturers. An analysis of procurement and supplier portfolios revealed large overlaps in the types of systems and services purchased. Consolidating the supplier portfolio helped reduce procurement costs by more than 20 percent. Savings potentials in this order of magnitude – between 15 and 20 percent – are possible for companies in almost any industry.

In parallel with the optimization of procurement procedures, every company should regularly verify whether certain goods and services should really be produced in-house or, for good strategic reasons, rather be outsourced to external suppliers. These same make-or-buy questions are also relevant for IT managers: What are strategic core areas of IT, to be provided internally and exclusively by the IT department – and what other services are not critical to the company’s competitiveness and can therefore be outsourced? Finding clear answers to these questions should be part of any IT strategy.
In most cases, however, the optimization of IT sourcing is triggered by high cost-saving expectations, rather than strategic considerations. Experience shows that projects to optimize IT sourcing, just like projects to optimize other procurement categories, quickly take effect. Interestingly, the percentage value of procurement cost reductions is almost unrelated to the absolute procurement volume. In individual IT categories, up to 40 percent cost savings can be achieved; usually 15 to 20 percent are possible across the entire IT procurement portfolio (figure 36).

Prior to IT sourcing, a consistent demand management must be established to ensure coordinated activities. The first question here will be, what needs to be outsourced and what needs to be produced in-house. Rule number one is: Less is more. Rather than trying to negotiate lower licensing fees with the different ERP suppliers, it will often be preferable to change to one single ERP platform and prevent multiple licensing fees. Corresponding strategies begin with the harmonization of business processes, continue with the standardization and sorting out of IT applications, and end in the standardization of the company’s IT infrastructure (see previous subchapters). Based on these measures, the key questions of strategic IT sourcing can be tackled:

- **Make or buy**: Which IT services – both, critical to competitiveness and on a competitive level – should the IT department focus on?
- **Bundling**: What IT services should be bundled for either the ‘make’ or the ‘buy’ case?
Both questions can only be solved in conjunction with the corporate strategy. As any other strategic decision, the answers cannot be determined once and for all, but need to be revised at regular intervals in the context of the company’s medium- and long-term planning.

1.4.1 Examining the degree of vertical integration in IT

Experience has shown that the key question is not whether all IT services should be provided internally or externally, or whether they should always be sourced centrally or individually. While the coordinated sourcing of computing center services usually makes sense due to their homogeneity and economies of scale, in other cases – such as the maintenance of company-specific aged applications – the coordination effort often exceeds possible synergies. It is therefore preferable to determine for each of the company’s key IT services which approach will be more suitable.

On the other hand, IT resources are scarce and expensive. The general rule should therefore be to focus in-house development capacities on those areas where proprietary developments can help achieve major competitive advantages. Above all, this applies to IT services through which companies differentiate themselves from competitors, and which therefore increase corporate value. A possible example would be an energy supplier’s decision support systems used in energy trade, which are based on company-specific algorithms and therefore provide a competitive edge. This company would be best advised to bundle its internal IT resources in order to maintain and expand its competitive advantage, an approach often facilitated by the outsourcing of standard IT services.

It will depend on the industry and company-specific situation which IT services need to be categorized as ‘Make’. Some examples from our consulting practice:

- In telecommunications, low-cost systems and CRM systems are often specialized applications. They are frequently developed in-house or tailored to the specific needs of the organization or product (customized) based on packages. In the wireless sector, for example, new topics emerge in GPRS/UMTS data communication (including i-mode as a special form) – such as data driven service products, event-based billing, etc. – for which no standard solutions are available as yet.

- In the energy sector, specialized systems that are frequently developed in-house include industry-specific control systems for optimizing capacity utilization at the different stages of the value chain.

- Large trade groups usually operate proprietary systems in enterprise resource planning and sales because so far, there is no standard software available for these key areas.

- Service providers in tourism and logistics (such as airlines, hotels, railway, car rentals; logistic providers for land/air/sea freight) tend to focus on reservation, tracking and tracing systems.
In *all industries*, the following standard services are suited for outsourcing or strategic sourc-
ing, since they are either uncritical to competitiveness, or cannot be provided in-house at
competitive terms:

- Standard business functions including finance and account, purchasing, logistics, HR
- Workplace software
- Operation of PCs/desktop computers, and LAN/WAN (= end-user computing)
- Operation of computing centers.

Only in very exceptional cases will companies have an IT procurement volume large enough
to justify the in-house production of these services.

### 1.4.2 Bundling IT services

The harmonization of business processes, the consolidation of IT applications, and the stan-
dardization of the IT infrastructure all result in a clear need to bundle the sourcing of ser-
vices. In this context, even IT services outsourced for only one division or subsidiary should be checked for possibilities to have them covered by one of the company’s existing providers, possibly at lower costs. In the end there will be only few specific, ‘exotic’ IT services which must be outsourced separately. According to our experience, more than 90 percent of any IT procurement portfolio will be suited for the bundling of purchasing volumes.

What distinguishes strategic sourcing projects in IT from those in other areas is the composi-
tion of the project team, since users need to be closely involved. Individual persons, business
units, or subsidiaries usually have very diverse interests, as well as different preferences with
regard to workplace systems, application software, and service providers –which, in turn, often prevents companies from making use of the most important and effective IT sourcing lever: standardization. This is why demand management plays such an important part in such projects: If the organization can be committed to only one standard software or one type of terminal, bundling purchasing volumes and achieving sustainable major savings in procure-
ment costs will be a breeze. Likewise, if these efforts are not successful, all sourcing ap-
proaches based on extensive bid procedures and supplier selection will be doomed to fail, due
to small volumes and a fragmented supplier portfolio.

### Introduction of strategic sourcing at a global IT service provider

At a large, globalized group with an IT procurement volume of 1,300 million Euros, the
sourcing process for hardware, software and IT services was quite intransparent, due to a
high degree of complexity and a very international business. Hardware was procured from
a number of different suppliers which were frequently changed. The company’s application
landscape was very heterogeneous as a result of several acquisitions and a large share of
customer-specific projects. What complicated matter was that the company had to make high demands on quality and delivery times to avoid competitive disadvantages. Last but not least, it had to meet specific requirements in many countries, for instance with regard to accounting systems.

The company started its improvement efforts by establishing clarity on the different divisions’ requirements, capacities needed, supplier relationships, and other cost drivers of IT sourcing. On this basis the IT infrastructure and workplace software were standardized. Next, a target portfolio for business software was determined and a migration plan set up; in addition, a standardized award procedure for IT projects was defined and agreed upon. For the IT infrastructure, competitive bids were invited using e-auctions; for workplace and standard business software the company conducted supplier negotiations which turned out to be very effective thanks to the larger volumes. Together these measures enabled the company to reduce its IT procurement volume by 15 percent.

To ensure that this success would be sustained long-term, processes and responsibilities for IT sourcing were clearly defined. This included the centralization of responsibilities where IT procurement categories would in future be bundled across the organization.

| Checklist: Should your company optimize its IT? | Yes |
|-----------------------------------------------|-----|
| Does your software comprise numerous proprietary developments and redundant standard solutions? |   |
| Does the heterogeneity of IT constrain business processes, rather than supporting them optimally? |   |
| Has your company recently undergone a period of considerable external growth, without integrating the newly added IT applications and infrastructures? |   |
| Do your employees use several database and/or email systems, or numerous PCs and notebooks in different configurations? |   |
| Are hardware and network components distributed over several locations? |   |
| Do individual departments or divisions purchase IT services at their discretion and from different suppliers? |   |
2. In-House IT Service Providers – Exploiting Efficiency Potentials

In the 1990ies, many companies integrated their internal IT functions, spinning off IT service providers as separate corporate entities. There was a regular wave of start-ups across all industries, seize manufacturing companies, energy suppliers, airlines, and banks alike. While this trend has subsided over the past years, there is still a great number of companies facing the decision whether or not to spin off their internal service units.

Key motives for spinning off internal IT service providers are cost reductions and quality increases in IT performance:

- **Cost reductions:** The company wishes to reduce IT costs by integrating IT departments and staff under one management and exploiting economies of scale (for example, by consolidating applications and computing centers – see chapter 1 of this section, ‘IT Optimization’). In particular when companies have several similar divisions, each with its own IT department, there are usually considerable synergy potentials in the different areas of IT. The same is true for companies which have passed through phases of strong external growth: They can usually exploit substantial cost and market synergies by spinning off internal IT service units. The objective must be to procure IT services at market prices, which are usually lower than internal transfer prices.

- **Quality improvements:** The integration of IT systems and staff helps consolidate the existing know-how and thus to improve IT performance. Service levels can be raised, simply due to ‘more mass’, IT solutions can be transferred between business units, launch times can be reduced if more people are involved, and many more optimization measures can be taken. Transforming the in-house IT unit into an independent IT service provider leads to a clear distinction between the role of the client – played by the company – and that of the contractor, which is the IT provider’s part. It should result in a constructive service mentality in the provider’s organization, while enhancing transparency on the IT services purchased and the related costs. Finally, companies might seek quality improvements by establishing an external IT service provider if they face substantial IT investments which, contrary to historical practice, will be introduced and used across the organization.

In the second half of the 1990s, when qualified IT resources were scarce and sought-after in the market, many companies also hoped that spinning off their internal IT service units would help them market their IT services to external customers. A positive side-effect of establishing an internal IT service provider is the support for the company’s IT governance: If, for instance, the IT provider becomes aware that several uncoordinated orders for identical IT requirements or system solutions are placed by the business units or subsidiaries, and if the company’s IT governance calls for integrated IT solutions, the provider can bundle these requests and implement standardized IT systems – based, for example, on template solutions.
– which incur much lower costs for implementation, operation, and maintenance than would customized solutions for individual business units or subsidiaries.

The question that remains is: Why should a company go through the trouble of spinning off an internal IT service unit, instead of simply outsourcing IT services from an established external provider? The answer is that in many companies, outsourcing is unacceptable for one or several of the following reasons:

- The company has critical know-how in IT systems and business processes, which may not under any circumstances be passed on to third parties (example: merchandise management in trade).
- The company is highly specialized or innovative, or present in exotic locations, or it requires very specific IT services which external service providers can only deliver as ‘special customer requests’ at excessive extra cost (example: market launch of data communication products in telecommunication).
- The company faces major change with substantial consequences for IT, and therefore wants to retain IT in its own control.
- Corporate tradition or explicit agreements with the employees’ representatives prevent outsourcing.

Prior to the spin-off of an internal IT service provider, the company should be clear about its objectives, taking them into account when deciding on the service provider’s design configuration. Similar to the outsourcing of IT services to external IT service providers (see chapter 3 of this section, ‘IT outsourcing and offshoring’), working with internal IT service providers requires strategic lifecycle management – spanning from the spin-off itself to professional cooperation to an exit strategy that works for both parties.

2.1 Strategically Aligning and Spinning-off the IT Provider

With regard to technical and commercial details, the cooperation between the internal IT provider and its customers – the divisions of the parent company – is set up in the same way as is customary between third-party providers and their clients. Mutual service relations are based on a service level agreement, with service levels tied to prices and a system of incentives (bonuses/maluses), and the cooperation is continually adjusted to the changing requirements of the company or the potential for technological innovation in the provider’s operations.
However, since IT providers are created from the centralization and spin-off of existing IT departments, there is a certain risk that previous inefficiencies and shortcomings will live on. Therefore, a series of stipulations is required covering everything from the IT provider’s organization structure, to staff competencies and responsibilities, to the redesign of business processes. The aim must be to ensure the transition form a mere organizational unit to an independent corporate entity.

This is where spinning off an internal IT provider differs from IT outsourcing. Determining the configuration of the internal IT provider and defining the rules for cooperation will involve opportunities and new challenges for the company. Even prior to the spin-off, the company must be aware of the goals it is pursuing with this move, and integrate them in the design effort.

The first question in this context is: What parts of IT should be spun-off at all? There are three basic answers which, in practice, will vary in several ways:

- **Everything:** The entire IT including all systems, computing center locations, and IT executives and staff will be transferred to the internal IT provider. Only demand management will remain in the company, to be taken care of by a CIO Office.

- **Only central IT systems and staff:** In this case, the CIO Office and decentralized IT remain in the company

- **Only shared IT systems and staff:** In addition to the CIO Office, division-specific IT systems and staff remain in the company

Other varieties include spinning off the entire IT (with the exception of the CIO Office) and leaving certain IT components in individual divisions. To simplify matters, we will base the following on the assumption that a company’s entire IT is spun off, while the CIO Office controls IT demand and determines the IT governance rules relevant to the cooperation with the internal IT provider.

### 2.1.1 Determining ‘strategic parameters’ for the IT provider

For a successful later cooperation it is crucial to determine the ‘strategic parameters’ of the IT provider’s business model from the very start (figure 37): Should it operate only from the company’s primary locations, or should it be present internationally to support the company’s growth strategy? Should its focus rather be on service quality or competitive prices? The clearer the answers, the easier it will be for the IT provider to support the company’s goals.
Figure 37: Strategic parameters for the business model of the IT provider (examples)

The IT provider’s position in each parameter will determine its further actions, development, and cooperation with the company. Some of them enhance, some constrain the entity’s growth potential or its ability to meet the company’s cost and performance requirements. Most important from the company’s point of view are those parameters concerning the interface between both parties, as well as those affecting the IT provider’s technical and financial performance.

- **Regional presence:** After existing IT functions are spun off, the new IT provider will immediately be present at all company locations. What should be clarified in addition is whether the IT provider will focus on supporting the primary locations of the company, or cover all existing and future locations. The latter may require establishing new international operations, for instance if the company intends to go to China. If the international focus of the IT provider is to be expanded, it will be crucial to ensure that executives and employees are gradually introduced to working on intercultural teams, and that they build the necessary language skills (most importantly in English).

- **Breadth of service offering:** As far as this parameter is concerned, less is more: Due its specialization, the industry and company-specific know-how, and the physical proximity to its customers, the internal IT provider is likely to be better positioned than external providers when it comes to application development and maintenance, on-site support in small, dispersed locations, and the management of infrastructure projects. On the other hand, where standard services like the operation of computing centers or help-desks are concerned an internal entity will usually not be able to compete with the prices of external providers which, due to their size and the standardization and centralization of their ser-
In-House IT Service Providers – Exploiting Efficiency Potentials

services, will benefit from fixed-cost degression and other economies of scale. The internal IT provider should therefore focus on those services where it can offer the company a price, performance, and quality level superior to that of external vendors. Likewise, it should give up those services where it cannot be competitive in the medium or long term, seeking alliances with external providers which are able to render these services at better terms.

- **Service strategy:** The service offerings and qualities requested by the parent company will differ from one division to the other: Some attach more importance to quality, others emphasize costs. Particularly large differences exist between the United States, Europe, and Asia: The high labor costs in Europe and the U.S. have resulted in higher penetration rates for automation and IT, which in turn calls for higher quality standards in user support and application development. The homogeneity of languages between the U.S. and U.K. facilitates the bundling of telephonic user support, as would be provided by a user help desk. The high qualification level found in some Asian regions, along with comparatively low labor costs, provide an excellent basis for location and language-independent services delivered on a worldwide scale. They include server and network management and certain parts of application development (cf. chapter 3 of this section, ‘IT outsourcing and offshoring’). The company should therefore consider carefully whether the internal IT provider should offer high-quality services based on a broad presence in all corporate locations, or cut down on local presence and transfer some of its IT operations to other countries, thus benefiting from factor cost advantages which it can pass on to the company.

- **Financial targets:** If an internal IT provider is set up as a profit center with fixed financial targets in terms of ROCE or EBIT, conflicts of interest with the divisions are virtually unavoidable, which can seriously hamper an effective cooperation. Divisions will argue that the provider’s profits result from a simple transfer of their own profits, rather than representing ‘real’ business results. This accusation seems justified in those cases where the IT provider – at least in the divisions’ perception – does not charge market prices but cost-covering internal transfer prices which are above market level. Corporate divisions will therefore often demand that the IT provider be operated as a cost center. This, of course, contradicts the intended market orientation and other strategic goals which have been set for the IT provider. The provider’s prices should be such that it can achieve an adequate profitability level while preventing the divisions from outsourcing to external providers for cost reasons. In short, it is imperative to use sound judgment in setting financial targets.

- **Focus of orders:** The IT provider can either work by order of each individual customer (i.e., division) or it can be given the mandate to seek cross-divisional synergy potentials, for instance by transferring IT solutions. In the latter case it will bundle similar requests from individual customers and strive for joint, cost-optimized and benefit-increasing IT solutions, using parameterized IT systems and template models.
**Sales activities:** The need of the IT provider to build up own sales activities will depend on whether it will be closely involved in the parent company’s IT planning processes – or treated as a third party, competing for bids with external IT service providers. In the former case, all the IT provider will need is a key account management staffed with knowledgeable IT specialists with problem-solving skills, and closely cooperating with IT users and CIOs at the divisions and subsidiaries. This solution is optimal in terms of costs because it provides planning certainty; it requires, however, the divisions’ confidence in the quality and price competitiveness of the IT provider. If such confidence is lacking, a sales team must be set up at the IT provider at considerable extra cost, since the staff from the company’s previous IT departments will usually not include any sales professionals.

**Degree of vertical integration:** Many IT providers, particularly at the beginning, tend to cover most of their value creation in-house. From the perspective of the parent company, this only makes sense if the IT service rendered is crucial to competitiveness and cannot be outsourced. In most other cases companies will demand their IT providers to focus on core activities at competitive prices. This means for providers that they must outsource certain parts of the value chain to external vendors, and assume a management and integration function for these parts. Services suitable for (partial) outsourcing usually include those related to infrastructure, an area where specialized or large external IT providers enjoy scale advantages. A similar, project-based strategy suggests itself in application development. Outsourcing these types of services will enable internal IT providers to counterbalance the high volatility in staff utilization; in addition, it offers opportunities to selectively buy in innovative know-how which they expect to become critical in the future, and which they can then develop, step by step, in-house.

**External market:** Many companies count on external sales potentials when spinning off internal IT providers. In individual cases, they can contribute up to 50 percent to the provider’s overall sales. This, however, is another point which – just like the setting of financial targets – requires a good deal of discretion: The new IT provider will initially suffer from considerable competitive disadvantages against established providers, which can be eliminated only through substantial and ongoing investments on the company’s part. In addition, the high quality demands of most external customer will force the IT provider to assign its ‘best people’ to external projects, which means that these experts will not be available for services to the parent company. In this scenario, unrealistic sales targets for the IT provider can easily fall back on the company. At least in the starting phase, companies should therefore expect their IT providers to achieve a maximum of five to ten percent of their sales in the external market.

In order to fulfill the strategic parameters of its parent company, the IT provider will have to develop corresponding capabilities: At the beginning of its existence, it will be nothing more nor less than the sum of the IT departments it was formed from, with all the strengths which the company has built and fostered over the years, and all the weaknesses it has been tolerating. This will include the usual, industry-specific compromises in HR policies (for example, where regulations for the protection against unfair dismissal must be observed) which, in the case of an external IT provider, would result in the cancellation of orders.
The quality of human resources is a key success factor for an IT provider. Consequently, the staff of the former IT departments will need to shift their focus from IT technology to customer orientation and service-mindedness. While they are usually highly motivated at the time of the spin-off, they will probably need some time to really adopt and live a true service culture. Suitable measures in HR leadership and management systems, as well as organization changes (such as introducing key account management or establishing cross-functional ‘solution teams’) can help accelerate this cultural change. Supporting tools like project evaluations, performance evaluations, performance-related compensation systems, trainings, and organizational transparency between the IT provider’s individual departments will provide the necessary incentives.

In many countries the need to be fluent in English can be a major issue. And it goes without saying that employees of an independent IT provider will additionally need brilliant IT expertise, broad business management knowledge, excellent problem-solving skills, and long-standing experience from numerous projects. The new IT provider’s staff will need to build and develop these capabilities and skills over time – ‘from zero to hero’ in no time will always be an exception.

Nevertheless, in many cases the divisions of the parent company – now customers of the new IT provider – will immediately tend to apply the same standards they use when dealing with other providers. If the parent company (which will have to cover the new entity’s losses, just as it will benefit from its profits) now exerted too much pressure, demanding immediate competitiveness on the external market or setting excessively high targets, the failure of the IT provider would be inevitable. It is therefore imperative to determine clear rules for the starting phase.

2.1.2 Allowing for a start-up phase to set up and professionalize the IT provider

During the first two years after the spin-off, the newly established IT provider will need to get organized as an independent entity, and develop professional structures and processes. The transition must be made from the sum of IT systems, IT executives and staff, computing centers, etc. that were spun off, to a high-performing organization. During this period mutual tolerance is a top priority, along with swift advances in professionalizing the cooperation – on both sides.

During the start-up phase there is much to be done. Existing staff must be trained, new personnel may have to hired to build the customer interface, and this very interface must be set up depending on the desired type of customer relations – either as an IT-driven key account management (operating ‘closer’ to the customer) or as a sales organization (keeping a greater distance from customers). The core processes of IT service provision must be built up, efficiency potentials exploited.
In one case example, several computing centers were transferred to the newly established IT provider, which immediately consolidated them from formerly over 10 to only three centers in optimal locations, thus achieving a substantial cost reduction. The IT provider’s own value creation must be contrasted with market-level performance and cost data, and its structure must be effectively aligned – in particular by outsourcing IT services which in the long run cannot be rendered at market-level quality or prices. Simultaneously, as performance increases are achieved in IT core processes, administrative services with respective commercial processes must be set up, in particular order processing with concurrent cost/revenue accounting and calculation, as well as bookkeeping, controlling, procurement, and HR.

While management will be busy initiating the transformation of the company, customers will expect continuity in IT operations. At the same time, the services rendered will not be on a competitive level – nor will the cost structure, and thus the prices for these services. Therefore some temporary relieving arrangements should be made to give the new IT provider a decent starting chance.

- **Cost allocation guarantee:** Up to a predefined point in time, which should be no later than in two years, the IT provider charges its actual costs to its customers – just like the IT departments did prior to the spin-off. To ensure that the divisions – the provider’s customers – register some positive development before that point, efficiency gains achieved should be passed on to the customers in the form of across-the-board cost reductions, such as ‘3 to 5 percent IT cost reduction per year’. At the same time, the services rendered should be recorded, a cost/price calculation should be set up and the prices should be determined based on criteria customary in the market. Cost allocations should gradually be replaced by service level agreements, thus building up a price mechanism which will be valid for all services no later than in two years’ time

- **Order placement guarantee:** The newly established IT provider could hardly survive intense competition with long established external providers; after all, the previous IT departments of the company did not have to compete in the market. Therefore, it makes sense to guarantee order placement for the duration of the start-up period. Whether this guarantee will be maintained or gradually redrawn, remains to be clarified in the context of the subsequent strategic rules of cooperation (see following subchapter, ‘Defining the strategic rules of cooperation’).

- **Gratuitous use of infrastructure:** The offices and infrastructure of the newly established IT provider will be on the premises of the parent company, at the locations of the previous IT departments – which means that they will draw benefits from the parent. These are usually provided at no cost, at least in the beginning, then sometimes charged to the provider (e.g., as rental fees). In that case the IT provider will need to consider these costs in its cost calculations and prices.
Granting the new provider a start-up phase has shown to be useful in particular with regard to fulfilling two strategic parameters – financial targets and sales targets for the external market:

- **For meeting financial targets** a gradual transition has proven effective. On principle, the IT provider will be managed as a profit center. Profitability targets for the first two years will be based on market prices, plus an overhead charge to compensate for an initial lack in competitiveness, or for any cost-intensive internal agreements with employee representatives that may not be customary among competitors (for example, if the IT provider has originated from the collective labor agreement of a manufacturing company). In these cases, profitability targets need to be introduced successively, oriented by the profitability targets of other divisions. This must be done with substantial discretion, as in many cases the parent company’s profitability figures will not ‘fit’ the IT provider – for instance if the parent runs an equipment-intensive manufacturing business where profitability targets must reflect the high capital lockup – which is usually not the case with IT providers.

- **If the parent company wants the IT provider to work the external market**, a low-key start might be an interesting option – for instance, by winning a few associated or friendly companies as customers before actually entering the external market. As the IT provider continues to build critical capabilities, sales targets can gradually be increased.

Even if the management, executives, and staff of the newly established IT provider do everything possible and necessary for a speedy professionalization of their organization, according to all experience there will be complaints from the customers – the divisions – during the start-up phase. Previously internal IT departments are turning into a legally independent service provider: a change like this is bound to affect the relationship between users and IT and often causes multiple grievances. Severe disturbances in the relationship, however, will manifest themselves in very concrete ways:

- **IT orders from the parent company’s divisions or subsidiaries** will increasingly be placed with external vendors, without checking back with the internal IT provider, thereby dodging the order placement guarantee.

- **Divisions will gradually (and in part secretly) build up in-house resources**, stating reasons such as higher quality, lower costs, and better controllability.

- **The IT provider’s internal customers** will demand that, for quality reasons, certain projects or user support be given to subcontractors they have selected.

Unless the causes for such disturbances are identified, analyzed objectively, and resolved in a constructive manner, a downward spiral will set in which has led to the failure of many IT providers. A suitable tool for this cause analysis is a customer survey, in particular one focusing on strengths and weaknesses: It helps identify the areas to be addressed most urgently, also in comparison to external providers. Such surveys should generally be conducted by ‘neutral’ institutions (such as consultants or market research firms) to prevent accusations of instrumentalizing it for political purposes. In many cases, such surveys reveal a need for action in the following areas:
Enhance customer orientation in key account management or sales, as applicable (typical complaints: ‘order generation takes too long’, ‘contact persons keep changing’ ‘incompetent contacts’).

Improve coordination and cooperation between sales and delivery (typical complaints: ‘if customers don’t keep calling back about their orders, nothing will get done’, ‘sales people sell services which are impossible to deliver’).

Improve delivery quality (typical complaints: ‘project got out of control’, ‘service levels were not maintained’).

Improve administrative support processes, in particular invoicing and knowledge management (typical complaints: ‘external providers accomplish more’, ‘invoices are intransparent’ ‘the left hand doesn’t know what the right hand is doing’).

In almost every case, the internal provider’s ‘market share’ in the parent company’s IT budget will gradually decrease and external providers will take over. This development threatens the IT provider’s existence in two ways: First, the decrease of critical mass in sales will resulting in an increasing fixed-cost share (as resource utilization goes down); secondly, there will be a lack of projects on innovative topics to safeguard the future of the business. This is why disturbances in the cooperation, particularly during the start-up phase, require top management attention and possibly a change management program, in order to enable the IT provider to take proactive measures. Apart from serving the provider’s own interests, this will also help the parent company to meet the original goals of the spin-off.

2.2 Stipulating Strategic Rules for Cooperation

Soon the start-up phase will be over. In almost all cases the customers of the IT provider – the parent company’s divisions and subsidiaries – will now demand that full competition with established external providers be opened. At the same time, the parent company will increasingly expect the IT provider to form an ‘IT bracket’ around divisions and subsidiaries, actively contributing to IT cost reduction at consistent – or even improved – IT performance quality by developing shared solutions. On top of that, the IT provider will be expected to be highly innovative, providing the parent company with current know-how and latest-generation IT systems to strengthen its competitive position and optimize its costs, thereby rendering a clear contribution to corporate value increase. In short: The IT provider will be caught between conflicting goals.

To increase the benefits from IT and from the in-house provider, and to reduce overall IT costs, the company will need to determine strategic rules for the cooperation between the provider and the divisions. In practice there are three variants, each with its own specific consequences:
‘Arms Length’ – **full competition, no involvement:** In this scenario, the IT provider is in full competition with established external IT providers, and is not given any guarantees in terms of order placement. The only way for it to obtain an order is by winning the parent company’s bidding process through superior prices, services, or delivery quality. Rather than being involved in the planning processes of the parent and its divisions, it receives the same information as any other IT provider.

This approach is only advisable if the IT provider’s performance has reached market level and if a sufficient share of its business (30 to 50 percent) comes from the external market, enabling it to buffer fluctuations in demand. Another essential prerequisite is that divisions and subsidiaries maintain a neutral relationship with the IT provider, neither discriminating against it nor giving it preferential treatment.

In reality these criteria are impossible to fulfill: Almost all IT providers start by achieving only limited sales and experiencing losses. Usually there is no or only very little external business and it cannot be expended quickly, least of all with ‘real’ customers which are not associated with and independent from the parent company. Moreover, customer relationships are mostly burdened, as all the ‘sins of the past’ – when the provider was still an IT department at the customers’ organization – will come back into play. Full competition will, in all probability, result in a rapid sales decline and high losses, which the parent company’s divisions and subsidiaries will ultimately have to compensate for. Therefore this option is not advisable. Rather than establishing an internal IT provider, the company should look into outsourcing its IT services or – if the internal provider has already been established – selling it to an external provider.

‘Preferred supplier’ – **some competition, some involvement:** In this scenario, the IT provider is involved somewhat in the company’s IT planning processes, enabling it to better prepare for its customers’ short, medium, and long-term requirements. While the divisions may invite external bids, the internal IT provider can be sure to win the bid if terms are at least comparable. This, in turn, enables the IT provider to invest in building innovative IT know-how, helping the company to achieve higher increases in corporate value. This approach is quite common in practice: It combines competitive elements (bid invitation) with corporate control and planning mechanisms, which in the long run will be beneficial to both, the company and the IT provider, while divisions can be sure to obtain market-level prices and services.

**General provider – no competition, tight involvement:** This approach entails a very tight, possibly even full involvement of the IT provider in the company’s IT-related planning and decision processes. There is no competition with other IT providers in the external market; instead, there is an IT monopoly with an obligation for the provider to submit proposals, and an obligation for divisions and subsidiaries to accept them. The result is a tight and stable relationship with full mutual transparency on the customers’ IT needs and the IT provider’s cost and services structure.

This scenario guarantees long-term survival for the IT provider, but not necessarily optimal or even market-level IT services and prices for the company. In fact, this type of in-
volvement does not even correspond to the idea of an independently managed IT provider – rather to that of a Shared Services center with an IT focus, in particular because it lacks the element of entrepreneurial risk that would legitimate the profits obtained. All in all, this option is only advisable if, due to special circumstances or very specific requirements, there is no alternative offering in the market (a conceivable scenario for instance in the defense sector or in highly specialized or very low-revenue industries) or if the performance of the internal IT provider is so far below market level that even in the longer run – that is, after the start-up phase – it is not likely to become competitive. This is another case where the company should consider IT outsourcing, or selling the internal IT provider to an external vendor to restore its competitiveness.

In any case, a monopoly situation with purchase obligations for the divisions will not be sustainable long-term – in particular if these divisions operate in very competitive industries: Their willingness to tolerate non-competitive services and prices will quickly subside since, after all, they are evaluated based on their own results, not their merits in subsidizing a sister company.

For all these reasons, it will be advisable after the start-up phase to strive for a ‘Preferred Supplier’ solution: It requires the IT provider to keep its costs and services at or above market level – permanently and structurally. If not explicitly demanded by management, this is usually fostered by customers’ demands for more transparency on IT costs and services, including comparisons with external IT providers. Benchmarking its own services and prices against the market will help the IT provider to identify levers for improvement. In practice they usually include the following:

- **Extensive consolidation:** For standard services – in particular infrastructure services – consolidation across locations or regions can help achieve substantial cost reductions (see chapter 1 of this section, ‘IT optimization’). Examples are provided by external IT providers following an outsourcing effort (consolidation of computing centers and help-desks, integration of service teams for user/PC support, centralization of central functions like sourcing, sales, and others).

- **Optimization of the product portfolio and of vertical integration:** IT services or individual components of IT services, which the IT provider cannot offer at market-level terms due to insufficient volumes, are outsourced to external subcontractors.

- **Optimization of key and cross-divisional functions:** In case of shortcomings in bid preparation and invoicing, external providers’ best practice can be used as a reference in optimizing the efficiency of service delivery processes, and adjusting service quality to market standard.

- **Aligning qualification, leadership, and management systems of the internal IT provider with customer requirements:** Common approaches include intensive staff training with particular emphasis on service-mindedness, introduction of customer-oriented performance evaluation and incentive systems, adjustment of tariff structures and career paths, and
finally systematic recruiting of lateral hires from external IT providers and IT consultants for leadership positions.

Choosing a suitable business model for the internal IT provider and striving to professionalize the cooperation are both crucial to reaching the original goals of the spin-off. They are also key factors for the success of the company’s exit strategy.

Spin-off and professionalization of an internal IT provider at a manufacturing group

A group of companies in the manufacturing sector had completed several large-scale mergers, and was now looking for synergies. Management’s attention was drawn to the regionally dispersed and hardly consolidated IT organization, which had largely remained the same as before. An agreement was reached to consolidate all IT activities in one IT service company, in order to exploit synergies in IT costs and improve the allocation of resources (for example, by increasing utilization rates in application development) with corresponding advances in professionalization.

After a twelve-month start-up phase the organization structure was complete. After another twelve months, key IT cost synergies had been realized. There was, however, a series of strategic and quality-related factors raising doubts in the sustainable success of the new entity: With roughly 1,000 employees, the IT provider covered almost the entire service portfolio of the group, with a particular focus on Europe and smaller marginal activities in the U.S. and Asia. The group's divisions placed their orders directly with the IT provider, with very limited central coordination.

After approximately three years, there were increasing signs of problems in the cooperation:

- The IT provider’s market share in the group was declining
- External providers won numerous bids for new application projects
- The IT provider was perceived by its internal customers as being bureaucratic, expensive, inflexible, and not in line with corporate strategic goals
- The IT provider had made only small entries into the external market
- A newly established IT sales organization met with limited acceptance.

These problems went all the way back to the start-up phase: The substructure of a classical IT department had been left unchanged, and transferred to the organization of the new IT provider. Employees did not perceive themselves to be service providers, and the entity's regional presence did not match the requirements of a group operating on a global level.
The IT provider started a quality initiative in delivery: The status quo was verified through internal customer surveys, and compared against the parent company’s requirements. Likewise, the group compared the IT provider’s services and costs with the experiences gained with external providers on similar projects, and derived strategic guidelines for the IT provider’s future positioning. Resulting measures were detailed in business plans and a change management process was set up to eliminate the deficits in the cooperation. In addition, standard services were outsourced to external, lower-cost providers; for selected regions, a strategic alliance was established with an external IT provider present in those regions.

These measures helped to turn the cooperation between the group and its IT provider into a win-win situation: The IT provider’s position within the group was secured long-term by means of permanent benchmarking with external providers, continuous customer surveys, and concentration on its particular strengths. This way the group ensured that critical know-how would remain in the company, safeguarding its strategic independence from external IT providers. At the same time, the IT provider was able to reduce the costs of IT operations by 15 percent in the first two years, increasing the bundling of specific IT functions (such as computing centers and call centers), with additional structural cost reduction potentials in the entity’s further development.

2.3 Expanding, Insourcing, or Divesting the IT Provider

Despite all efforts made by management, executives, and employees, long-term prospects for corporate IT providers tend to be poor – the wave of consolidation is rolling. Even very successful spin-offs are divested by their parent companies. A prominent example is debis Systemhaus: Despite its rapid and profitable growth, a large share of third-market business, and an excellent market position, DaimlerChrysler decided to divest – another indicator that groups are increasingly focusing on their core business again. The exit happens even sooner if the original goals of the spin-off are not fulfilled, or if the parent company’s need for cash has increased. In this case the IT provider is sold, most likely to one of the leading international providers.

‘Survivors’ have so far included those IT providers which have enjoyed a stable order in-take, due to very tight links with the parent company, and which have used external benchmarks to continually optimize their processes and structures. By contrast, those IT providers that emerged during the ‘New Economy’ boom specializing on Internet, e-business, and CRM services have mostly failed or been taken over by a large-scale IT provider. Those that remained include mainly IT providers offering a broad service portfolio and focusing on a customer segment so far neglected by large providers (such as small and medium-sized companies).
The generally weak IT market of recent years has even affected IT providers with an established position in the market and highly competitive services. Price competition and the resulting pressure on margins, to be compensated only through increasing scale effects, require globally active service providers with large computing centers, consistent standards, and high service quality. Regional providers face increasing pressure, as customers tend to prefer providers that operate on the same global level. Corporate providers are at a disadvantage because the majority of them is only present in the group’s primary locations.

The competitive situation of IT providers is additionally influenced by changes in demand. Rather than purchasing their entire IT from an external provider, more and more companies start to outsource only services unrelated to their core competences. Almost all customers keep process and application-related, strategic, and controlling services in-house. What remains is basically services standardized to such an extent that they can be outsourced to several providers, thus intensifying price competition among them.

Together, these factors have led to a profound, and still ongoing, consolidation in the IT market. Large, international IT providers take over smaller corporate IT providers, mostly after five to ten years of existence when it has become apparent that the possibilities for internal growth are limited. Figure 38 illustrates some of the important changes in the IT market.
Many companies have realized that they will not be able to exploit the cost and in particular benefit potentials they have hoped for when spinning off an external IT provider – despite all efforts to professionalize the cooperation. They have come to a crossroads where they must choose between two options: divesting the IT provider, or separating its services into strategically relevant ones to be returned into the company (insourced) and non-critical services to be outsourced to external providers.

The first option, disinvestment, will be relevant for companies which, in the long run, do not consider IT a core competence and which, faced with a make-or-buy decision, would rather opt for outsourcing. The decisive factor is the IT provider’s critical size: If it is not able to offer professional processes (from new-business acquisition to project management and invoicing) at fair prices, it will be a candidate for sale, as small and medium-sized IT providers have survival chances only in certain market niches – based either on industry-specific know-how, or on strongly segmented IT services such as SAP development.

Once the company has decided to divest, potential buyers must be identified. Main motives for them to take over a corporate IT provider will usually include non-organic sales growth, procurement of industry specific IT know-how from the parent-company’s industry, or simply access as Preferred Supplier to the IT provider’s previous customers, the parent company’s divisions. Depending on the competences of the internal IT provider, several potential buyer groups may come into question:

- Software firms for IT providers which have developed marketable and competitive software products
- IT consultancies for IT providers which have built up strong development and consulting skills
- IT outsourcers wishing to enter into existing contracts of the internal IT provider.

The price achievable will depend on the existing (industry) competence of the IT provider, as well as its future sales potential with its previous parent company. In individual cases, restructuring the IT provider might further enhance its attractiveness to potential buyers. This may include dividing it up in several segments, each of which may be even more attractive to the target groups mentioned than their combination would. The result may be partial insourcing, or negotiations with several target groups. If no buyer can be found, the only remaining option is to outsource the services so far rendered by the IT provider, and close down its operations step by step.

Insourcing can be an interesting option if the IT services have strategic relevance for the parent company. It can be accomplished either by closing down the internal IT provider, transferring its operations to the parent company, or by integrating it with the parent company and focusing on in-house production (de-facto insourcing). Based on the parent company’s strategic requirements, it will be necessary to professionalize the IT provider, build up market-oriented activities, eliminate redundant administrative functions, and reduce the product portfolio to what is needed by the group. In this case the IT provider, together with the corporate CIO organization, will assume responsibility for a strategy-conform, market-oriented and
efficient IT supply. Regions and IT services where there are internal know-how deficits, or lack of critical mass, can be developed based on alliances or selective outsourcing.

Even if the spin-off of internal IT providers, as a general rule, will not be a long-standing solution but mostly a more or less temporary state of affairs, cost and benefit increases in the context of the spin-off can contribute to IT optimization, and to exploiting the savings potentials of IT outsourcing and offshoring.

| Checklist: Does your company’s cooperation with its internal IT provider rest on a solid basis? | Yes |
|---|---|
| Have appropriate targets been defined for the IT provider in terms of sales, cost reductions, quality improvements, and financial results (ROCE, EBIT)? | |
| Has the design of the IT provider been guided by the structures and business processes of external IT providers, and have services and prices been aligned with the market? | |
| Are executives and staff being developed with regard to customer and service orientation? | |
| Have the scope and depth of the IT service portfolio for individual regions and customers been derived from a business case, ensuring that only economical activities will remain with the IT provider? | |
| Have the parent company’s divisions and the internal IT provider established formal, market-oriented service level agreements in line with technological state of the art? | |
| Have temporary arrangements been made for a transitional period of about two years, allowing the previously internal IT departments to grow into one professional IT provider? | |

3. IT Outsourcing and IT Offshoring – Cost Advantages from Contracting Out Services

If you want to drive a car, do you have to be able to build and repair it? If you need electric-ity, do you have to operate your own wind, water or coal-fired power plant? Well, for most people the answer will be No. Cars can be bought or leased from a variety of manufacturers, electricity comes ‘out of the wall’ – as long as you have a power supply contract and regularly pay the bills.

The principle of division of labor implies that companies specialize in certain products and services which they can deliver better and cheaper than other companies, so that ultimately
they will become suppliers to others. From the perspective of the overall economy, this is a very positive phenomenon as it generates jobs at the specialist and prevents a waste of resources at the non-specialist. The same applies for IT: Information technology is complex and subject to continuous change. The management of IT, therefore, binds precious corporate resources: highly qualified staff, capital for hardware and software investments, office space, and others. Most companies, however, are ‘only’ users of IT: Yes, they need the performance – but why should they obtain or retain an ‘IT production’?

As early as in the 1960s, innovative entrepreneurs in the U.S. started specializing in ‘IT production – either as IT service provider, without their own hard- and software, or as a value chain extension of hard- and software producers. Today, the first approach is pursued by globalized companies like CapGemini Ernest & Young, EDS, SBS, or T-Systems. Outstanding examples of the second approach include IBM, Hewlett Packard, and more recently also SAP.

IT outsourcers are plenty today. The IT outsourcing sector has become an established industry with numerous professional suppliers. In every industry there are prominent examples of extensive outsourcing relationships – including areas where IT sourcing had previously been considered to be difficult or even impossible: Nowadays, even banks, telecom suppliers, and governments outsource large parts of their IT to external vendors. In other sectors which are less IT-driven – such as manufacturing – IT outsourcing has long prevailed. This raises a question for every company still retaining an in-house ‘IT production’: What do we need this for? Is it a real necessity or a luxury?

The advantages consisting in a sharper business focus, obtained through IT outsourcing, can be further expanded through IT offshoring – a rather young approach which is currently finding its way into European business practice. Pioneers in this field include the global automotive industry and the financial sector, where the share of IT is particularly high and the prevailing proprietary systems are hard to replace with standard software. The positive experiences they have gained with IT offshoring provide excellent learning examples for other industries.

### 3.1 Reducing Vertical Integration with IT Outsourcing

The motive for outsourcing is the same in most cases: Companies want to cut IT costs. Reduction targets are defined, specifying a 20, 30, or even 40 percent cut in IT production cost. Other crucial factors can be higher performance requirements with regard to IT service availability or shorter project durations.

A highly successful mechanical engineering company, for example, which so far had its main focus of operations in Germany and Western Europe, expanded into the U.S. market by acquiring a local company. As a result, its IT was now expected to run global systems, establish
transcontinental networks, consolidate a number of locations, and introduce a standardized IT landscape. Moreover, support to U.S. users would require the computing center to go from a two-shift to a three-shift operation. A critical self-evaluation led the company to realize that all those IT activities could not reasonably be in the focus of an engineering company. A powerful outsourcing partner was identified and the IT outsourced. The new partner’s competences, capabilities, and local presence enabled the engineering company to obtain the improved and broader IT qualities required, quickly and at moderate cost, without having to make any major investments.

Such situations mostly happen in companies where IT performance and the speed in implementing innovative IT products are critical to competitiveness. For instance, at banks and insurances, telecom providers, and airlines, value creation massively relies on IT (in telecommunications, for example, on rating and billing systems and on data communication products for GPRS/UMTS; in airlines, on reservation and check-in systems). Above all, they seek outsourcing partners helping them enhance their IT capabilities, for instance by bringing in the additional know-how needed to meet specific market challenges, or by providing the critical mass and capabilities required to carry out large-scale projects or manage the technical complexity of global IT operations.

In many cases, the company will expect its IT outsourcer to bring additional business into the cooperation, for instance by actively offering the company’s services to the outsourcer’s other customers or by integrating its services into its own portfolio. Let us take, for example, a cooperation between an IT outsourcer and a telecom provider: The IT outsourcer will need telecom services to globally network the ‘IT productions’ it is running for other companies, so it can either use the telecom provider’s services or recommend them to other corporate customers. Another example would be an IT outsourcer assisting in the establishment of a new financial services provider by adapting an existing IT platform to the new company’s needs. The financial services provider could pay back this service by granting the IT outsourcer a fixed percentage of its sales, which it could not have achieved at the same extent and speed without the IT outsourcer’s help.

One way or another, IT outsourcing offers economic benefit potential to companies of all industries:

- **Reduction of complexity**: For many companies, certain services provided by their in-house ‘IT production’ (such as the operation of the infrastructure) have become an essential part of their IT which, however, does not belong to their core competences and therefore adds little to their competitive differentiation. For these companies, IT outsourcing will have the advantage of reducing the scope of services rendered in-house – known as ‘vertical integration’ – and focusing their ‘IT production’ on strategically relevant, value-added IT activities.

- **Consolidation**: For companies running several IT landscapes in their different divisions, outsourcing is often the only way to break through particular interests, enforce the consolidation of the IT landscape from an integrated point of view, and speed up necessary restructuring efforts. By setting ambitious cost-saving and service improvement targets, the
IT outsourcer can be encouraged to follow a tough consolidation course, and will usually have the experience needed for a complete redesign of the IT landscape. In many cases the outsourcer will be prepared to make the necessary initial investments, in return for a fixed share in the savings obtained by the company (depending on the duration and terms of contract).

- **Fixed-cost variabilization:** Once the IT landscape has been consolidated – usually after the so-called transfer phase – the IT outsourcer can jointly run several customers’ IT. These economies of scale will enable the outsourcer to offer flexible pricing models and to charge for IT services based on the quantities delivered (pay-per-use) – for instance, per MIPS (Million Instructions Per Second, a measuring unit for processor capacity or storage space in a computing center), per workstation, or even per business transaction. This way, the previously fixed resource IT becomes a variable that can be adjusted to changes in the business activity.

- **Improvements in reliability and innovation:** IT is highly complex and volatile. Companies are forced to continuously follow the latest technological trends, while maintaining a standardized environment that will guarantee high availability. This is only possible with high-level IT staff specialization – which, in turn, requires substantial critical mass. Benefiting from the specialization and innovativeness of an IT outsourcer is often the better alternative.

- **Reduction of staff levels and achieving of cash effects:** Outsourcing, as a general rule, involves a transfer of IT assets (computing centers, all hardware licenses, possibly some software licenses) which means that previously fixed assets turn into current assets. For the company in question this can be a means to improve its short-term cash position, as the IT outsourcer will purchase its IT assets at market prices – often based on their residual book value – so that the company will obtain corresponding sales revenue. The outsourcer, however, will need to earn back this purchase price in the course of the service contract in order to be profitable, and will therefore integrate it in the service prices to that customer. Consequently, it will not be advisable for most companies to maximize the sales price for their IT assets.

Initially, the value-creation potential of IT outsourcing will lead to increasing IT costs (figure 39): In many cases the reason is that companies, instead of systematically optimizing their IT, hope that IT outsourcing will ‘automatically’ lead to optimization effects. Winners will be those who have positioned their IT as a value driver, separated demand management from supply management in the context of IT governance and continually pursued optimization measures, such as standardizing PC workplaces or switching off outdated or redundant IT applications. Even in those cases, however, the transfer of IT to the outsourcer’s business system will initially cost money. This temporary cost increase, typically for a period of one or two years, will affect both parties involved.
For the company, IT costs will temporarily increase due to the transfer of the previously in-house ‘IT production’ to the IT outsourcer, as well as the resulting need to set up a CIO function for demand management (unless it already exists) and to make any ‘hidden’ IT costs visible.

Costs for setting up demand management: The IT outsourcer will need a competent contact person in the client company to prepare IT-related decisions and carry them through. The company will need a person in charge of managing the IT provider. Both requirements can be met by a CIO Office: In addition to managing and monitoring the IT provider, its task will be to manage the interface with the business departments and IT users, jointly identifying innovative IT topics that might contribute to the value increase of the company. Consequently, the CIO Office will bundle demand vis-à-vis the IT outsourcer, and strive to prevent any increases in IT costs as would result from uncoordinated IT requests.

Transfer costs: The IT outsourcer receives the company’s IT technology (hardware systems, communication networks, software systems, computing center locations, and others) and IT staff. In order to be able to achieve the targeted cost reductions and performance improvements, the IT outsourcer will integrate the IT technology and staff into its own business system (for example, by connecting the computing center to a central control station, or by ensuring better utilization of the IT staff, dedicating their spare capacities to

Figure 39: Typical results curve of IT outsourcing;
Source: A.T. Kearney
projects for other customers). In many cases, the outsourcer will also obtain better purchase terms for PCs, notebooks, and printers, as well as software licenses. To be integrated into the business system, the IT usually needs to be ‘rebuilt’ and optimized – which requires IT investments. The extent of the integration into the outsourcer’s business system will be ruled in the outsourcing contract. Likewise, the contract should stipulate who will bear the one-off costs for rebuilding the IT, and the possible severance payments for, and/or training of, the IT staff.

Making ‘hidden’ IT costs visible: In the course of the transfer of IT technology and staff to the IT outsourcer, the actual extent of IT services rendered will become transparent for the first time: While the IT staff will continue to deliver extensive services to the divisions and other IT users at the company, these services will now be recorded and billed.

The costs of establishing a demand management function at the CIO Office, as well as transfer costs and the new visibility of the previously ‘hidden’ IT costs will add up to a temporary increase in IT costs by roughly 10 percent (possibly more in individual cases, depending on the expenditure for ‘IT consolidation’). ‘Temporary’ here means one to two years at maximum. From the second year, a steady state of affairs should have been reached, including performance improvements and 30 percent cost savings – which, in absolute terms, will translate into a total improvement of 20 percent. It is due to the expenditure and time required to reach the targeted improvements, that such outsourcing contracts are usually laid out for several years. At present five- to seven-year contracts are common, with optional extensions – but also the possibility of a premature cancellation, if mutual expectations are not fulfilled.

It is up to the company to strive for value increases through IT outsourcing at any time – including options to insource certain parts of IT, or outsource additional processes. And even if the company opts for insourcing at some later point, this does not necessarily mean that its original decision was wrong – rather, that either the corporate strategy, or the market, or the significance of IT to the company have changed.

To exploit the value increase potential targeted, companies should consider the entire life-cycle of an outsourcing effort from the beginning, so they can set the right course at any stage (table 2). From entering into an outsourcing partnership, to actively developing it, to the decision to outsource further activities or insource certain parts of IT, the company will need to resolve crucial issues at every life-cycle stage.
Table 2: Important issues in the outsourcing life-cycle

| Life-cycle stage                                        | Issues                                                                 |
|---------------------------------------------------------|------------------------------------------------------------------------|
| Make-or-buy decision                                    | Do we want to outsource IT?                                            |
|                                                         | If yes: What are the IT services we want to outsource?                 |
| Entering into an outsourcing partnership                | Which partner will be a good strategic and cultural match for our company, and can offer the best service, greatest flexibility, and lowest prices in the long run? |
|                                                         | How can we motivate the partner to continually support our goals?     |
|                                                         | How can we motivate our divisions to cooperate and deal with IT in a cost-efficient manner? |
|                                                         | How can we manage the cooperation?                                    |
| Active development of the partnership and renewed make-or-buy decision | How can we, as a company, stay in control? What will we do if service problems occur? |
|                                                         | What will we do if costs rise?                                        |
|                                                         | What will we do if there is a lack of innovativeness?                 |
|                                                         | What are the incentives for renegotiating the partnership?             |
|                                                         | Do we want to continue or expand outsourcing, change the IT provider, or insource? |

There are plenty of good reasons for outsourcing. The decisive factor will be that ambitious expectations are fulfilled. Companies must be prepared to take massive consequences, including the transfer of staff, changed roles between IT and the business departments, as well as new leadership and control mechanisms. Not surprisingly, a study by Dun & Bradstreet in 2000 revealed that 20 to 25 of all outsourcing efforts fail within the first two years; after five years the failure rate exceeds 50 percent. Outsourcing, then, offers exciting opportunities but also involves high risks. Minimizing these risks while exploiting the opportunities – that is the art of IT outsourcing.

3.1.1 Defining the objectives of IT outsourcing and identifying suitable IT services

Many of the causes for the later failure of outsourcing partnerships can be prevented if the company is clear on its motives. It will make a great difference, for instance, whether the goal is simply cost-cutting, or achieving an optimal economic benefit for the company. If the company aims for IT cost reduction, a sensible measure may be to transfer the existing IT staff to other parts of the company and give them other tasks (or let them go) and to outsource only the IT task itself, expecting the outsourcer to cover it with own resources (for example,
desktop support). While resulting in the lowest annual fee for the IT outsourcer’s services, this option will increase the costs to the company during the transfer phase, due to the retraining of or severance payments to the previous IT staff. In addition, the interface between the company and the outsourcer will be quite anonymous since the previous staff, which are familiar with the company’s requirements and peculiarities, will not be available for the outsourcer’s task.

When determining the objectives of an outsourcing partnership, it will be important to consider the company’s strategic, economic, and personnel-related goals:

- The strategic goals of the company are usually focused somewhere between cost reduction and performance improvement. They provide the basis for considering whether the IT staff should be transferred to the outsourcer, what part of IT should remain in the company (and why), and how the company’s demand for IT services will be managed in the future. Another crucial factor is how IT outsourcing will affect the company’s long-term strategic goals, such as focusing on core competences or external growth via mergers and acquisitions. These and many other questions must be clarified beforehand, even if they can partly be adjusted or detailed in the course of the outsourcing partnership.

- Economic goals comprise both, the costs and quality of the IT services required. Necessary decisions include what service level will be required at what price, and what the scope will be for possible later price negotiations with the potential outsourcing partner. This includes the option to pay higher prices in the initial phase, which is more capital-intensive for the outsourcer, and to pay less in the later, steady-state phases – or vice versa, depending on the company’s financial state (and opportunities for optimization through financial engineering). An important question in this context is how business units will be involved in the bidding process and the outsourcing contract negotiations, as well as the later fulfillment of the contract.

- Personnel-related goals are particularly important if the company intends to transfer staff to the IT outsourcer. For many employees, outsourcing – when considered from a neutral perspective – will be an attractive opportunity since they will proceed from a company’s marginal activity to the IT outsourcer’s core business. In addition to attractive career and compensation prospects, this will also involve higher-level performance standards. By contrast, what the IT staff really feels in most cases is that they are unwanted and therefore ‘pushed out’. However, as the previous IT staff will be required to run the company’s IT business from the outsourcer’s organization, early and clear communication will be imperative to help people explore the opportunities involved in the outsourcing move – and, of course, to ensure that these opportunities really exist.

Along with the company’s objectives, its current situation will have to be considered as well: It will make a lot of difference, for instance, whether the company has already taken measures for IT optimization, and exploited cost savings potentials in IT, or whether “clearing out” is an essential motive for outsourcing.
A European company in the service sector had already outsourced large parts of its IT. When the question came up whether country organizations should do the same, analysis revealed that cost savings would only range between 15 and 20 percent – a disappointing figure in view of the fact that the majority of divisions delivered the same service products and business processes were largely identical. Based on harmonized business processes and standardized IT systems, cost savings through outsourcing could have reached an estimated 60 percent. In cases like this, it will be worth the effort first to explore efficiency potentials by clearing out the IT landscape, thus achieving 60 percent cost savings, and to reduce the remaining cost base by another 20 percent, benefiting from an outsourcer’s economies of scale – in other words, to save 70 percent on IT costs and while achieving simultaneous IT performance improvements.

**Tips for selecting IT services suitable for outsourcing:**

*Do not outsource “problems”:*
While internal shortcomings such as insufficient IT performance or unsatisfactory service levels can be eliminated through outsourcing, the resulting cost savings will be close to zero. Rather, internal potentials should be exploited and the company should be prepared for the outsourcing effort before it is actually taken into consideration.

*Do not outsource all IT services to one IT provider:*
In accepting a company’s IT, the outsourcer will strive for profitability and growth. Profitability is achievable through appropriate prices and a fast integration of the company’s IT landscape into the outsourcer’s business system. Growth potentials, however, mainly result from the chance to be awarded further parts of the company’s IT. The outsourcer will reach both objectives through good performance and fair prices, leading to a high degree of customer satisfaction. Retaining some IT parts or distributing the services outsourced over several IT providers will constitute permanent incentives for the IT outsourcer’s good conduct.

Not all of the IT services that could potentially be outsourced are really suitable for that. In addition to company specifics, mainly strategic and economic factors will have to be considered in evaluating the outsourcing potential.

Strategic IT services contributing to company’s competitive differentiation had better be retained in-house. Examples include billing systems at telecom providers: The continuous change of products, processes, and tariffs calls for proprietary development, as these systems need to be tightly linked to the corporate strategy.

Another lesson learnt from practice is that, while outsourcers are usually capable of eliminating operational inefficiencies, they often have difficulties coping with the rapid change and strategic development of IT systems. Above all, strategic IT systems in industries with strong competitive or regulatory dynamics will require permanent, speedy development with a careful eye on the competition and/or regulation.
In less dynamic industries even strategic systems can be outsourced. Banks, for instance, are very dependent on their IT systems; nevertheless, the stability of the industry makes it possible to outsource even strategic IT, as external IT providers are likely to be able to develop these systems in a tightly managed process.

As for the question whether non-strategic IT systems and ‘basic IT supply’ services should be outsourced, the answer is a clear Yes. These are mostly commodities and therefore highly standardized, and their prices in the IT outsourcing market will be transparent. In general they include infrastructural services like computing centers, networks (LAN and WAN), personal computers (desktop and laptop) and back-office applications (such as SAP/ERP in financial accounting). Just like electricity or gas, such commodities are usually highly suitable for outsourcing.

In practice we will find the following design options for IT outsourcing – each of which will require a CIO function for managing both, internal demand and the external provider:

- **Outsourcing of the entire IT**
- **Partial outsourcing**
  - only of computing centers
  - only of application development
  - only of end-user computing (PCs, LANs, user help-desks)
- **Outsourcing of parts of IT tasks (‘outtasking’)**

The greatest opportunities exist in complete outsourcing to only one IT provider. At the same time, this will require the strongest control: The transfer of all IT tasks will enable the outsourcer to optimize the company’s entire IT landscape with regard to both, costs and benefits. However, this option also requires a maximum of control since, for the duration of the contract, the company will be dependent on one monopoly supplier. In most cases it will therefore be preferable to opt for partial outsourcing (see box on page 183).

An economic factor of great significance for any decision on IT outsourcing is the pricing of IT tasks. Companies will need to objectively analyze their ‘in-house production costs’ in comparison to the IT outsourcer’s prices. This comparison needs to be based on the ‘total costs of ownership’ – which, beyond the actual costs of the central IT department, also include the local IT costs in the divisions, the ‘hidden’ IT costs, the IT costs of local IT departments, and opportunity costs in the business departments (for example, for losses in HR capacity due to insufficient system availability, or for the manual reworking required due to missing interfaces between IT systems). Other factors to be considered include the capital tied up in the corporate IT, and the labor costs for internal IT specialists. Only if all relevant IT costs of the company are considered, taking into account the organizational allocation to divisions or departments, the result will be a ‘true’ cost comparison sustainable long-term.

Weighting the relevant strategic, economic, and company-specific factors against corporate goals will provide management with a sound basis for decision. The ultimate make-or-buy decision for IT tasks should always be made by top management, for IT outsourcing involves
a long-term, structural linkage to an outsourcing partner who will make an important value-added contribution to the company’s economic success – and who cannot easily be changed for another if the partnership runs into rough waters.

Outsourcing IT by selling an internal IT provider (disinvestment)

A large German group had established an internal IT provider to consolidate its in-house IT and place industry software and IT services on the external market. After a few successful years, the IT subsidiary started making losses and prices started getting out of control; in addition, the expected international expansion could not be achieved in parallel with the parent company. The group therefore decided to give up on the ‘IT adventure’ and refocus on its core competences.

The plan was to sell the internal IT provider to an international IT outsourcer who would be able to ensure the group’s IT supply at lower costs. De facto, this would involve two contracts between the outsourcer and the group: one ruling the sale of the internal IT provider, and one ruling the group’s outsourcing of IT services.

In this constellation of outsourcing and disinvestment, the outsourcing contract between the external IT provider and the group constituted an essential share of the IT subsidiary’s corporate value: The higher the savings expected from the outsourcing contract, the lower the value at which the outsourcer would assess the subsidiary. The company thus had to find and negotiate an optimal balance between the selling price and the service costs, which turned out to be a particularly challenge.

This special situation was pointed out clearly in the bidding process, to be taken into explicit account by the bidders. The selection of the future IT outsourcing partner was based primarily on the usual key criteria which would influence the cooperation in the coming years (such as scope of services, references, international presence, market prices, cultural fit). Maximizing the selling price only ranked second, as the company was aware that it constituted a pleasant financial one-off effect that would not be sustainable; nevertheless it was an important topic in the negotiations.

At the end of the day, the IT subsidiary was sold to the IT outsourcer at an attractive price, while the prices set for the future IT services were considered appropriate by the company. All staff were transferred to the IT outsourcer, and the majority of them was still there after three years. Today, the relationship between the group and the IT outsourcer is stable, the contract is ‘lived’ in mutual respect, service levels are maintained. In addition, the group has achieved 15 percent in annual cost savings. An evaluation of the outsourcing strategy after three years has led the group to consider the outsourcing of further IT tasks.
3.1.2 Developing the outsourcing partnership

The foundation for a successful outsourcing partnership is laid by selecting a suitable IT outsourcer and actively developing the cooperation with that provider. In view of the strategic importance and duration of this contractual relationship (typically, five to seven years) there will obviously be changes in the course of time – either because the company’s requirements to the outsourcer change or because technological or market developments on the outsourcer’s part call for adjustments to the relationship. Such milestones, which are decisive for an active management of the partnership, need to be considered in the design of the partnership in order to prevent later conflicts and ensure that the economic potentials from outsourcing are fully exploited. To facilitate straightforward decisions the company should make sure that, in addition to top management, key executives are involved as well:

- IT managers and staff, because they are immediately affected
- Business departments / business units, because they are the outsourcer’s future customers and will depend on its services
- Purchasing, legal department, and HR, because they will be involved in the selection of, and transactions with, the outsourcer
- PR, because they will need to be able to defend the ‘logic’ of outsourcing vis-à-vis external stakeholders, such as customers or suppliers.

An early involvement of representatives of these areas of responsibility will ensure that all corporate interests and perspectives on outsourcing are considered in the process. A frequent mistake, for instance, is the late involvement of functions perceived to be ‘only supporting’, such as purchasing, legal, and HR: Companies often realize too late that essential legal requirements in the transfer of staff or important agreements with employee representatives have been ‘overlooked’. Mistakes like these can cause the bidding process to be prolonged or even called off. Therefore, all the individuals listed above should get together at the very start of an outsourcing effort and jointly set up a permanent team to manage the bidding process.

3.1.3 Selecting a suitable outsourcing partner

The selection of a suitable IT outsourcing partner is a complex process for which companies need to make sufficient time (in simpler cases three to six months, for global outsourcing contracts even six to twelve months). After the objectives of outsourcing have been clarified, there will be a bidding process comprising several phases, in the course of which the long-list of potential outsourcers is gradually cut down to a short list, from which the company finally selects a favorite and an alternative candidate (figure 40).
The first task for the outsourcing team will be to draw up a reasonable long-list of all IT outsourcers capable of delivering the services required. For instance, if a global company wishes to outsource its IT, the long-list should only comprise IT outsourcers which are also present on a global scale.

The market for outsourcers can roughly be structured into the following segments (names are only examples, lists are not exhaustive):

- Global providers with a broad presence and portfolio, such as Accenture, CapGemini, Ernst & Young, CSC, EDS, HP, IBM, and others
- Predominantly European providers present in several EU states and with a comprehensive range of services, such as Atos Origin, Siemens SBS, T-Systems, and others
- Predominantly national providers including Datev, HVB Info, is:energy, ITERGO, its.on, Lufthansa Systems, RWE Systems, Triaton, and many others
- Local providers.

To identify the ‘right’ outsourcer, the first step of the bidding procedure will be to obtain information on services and prices from potentially interesting providers. For this purpose, a first Request for Proposal (RfP 1) is drawn up. It should be detailed enough to allow IT providers to write a qualified proposal. In comprehensive bids, the RfP 1 may well comprise several hundred pages. On the one hand, its clarity and quality will facilitate discussions in the company, helping to synchronize the different user interests; on the other hand, the document will signal to providers that the company is seriously interested, and allows them to draw up meaningful and robust first proposals.
**Tips for bid phase 1:**

*Give prior notice of RfP:*
It has been proven practice to call the management of the providers selected in the long-list, informing them about the intended dispatch of the RfP, and asking them to confirm their interest in writing to speed up the bidding process.

*Communicate frequently:* It will be advisable early on to point out the advantages of outsourcing to the relevant constituencies, such as the works council / union representatives, the board of directors or other boards and committees, and – last but not least – the employees concerned, in order to prevent rumor mill effects, calm down fears, and motivate staff for the changes to come.

The IT providers’ replies to the RfP are then compared and evaluated. Based on this evaluation, the company will be able to make a realistic estimate as to whether its outsourcing objectives (IT services and costs, personnel transfer, and others) can be fulfilled; in addition, the number of bidders can be cut down to a short-list of interesting candidates.

The responses of the different outsourcers will permit first conclusions on their interest and commitment: Bids submitted with substantial delay or in poor quality (for instance, containing a standard proposal rather than addressing the company’s specific concerns) should lead to the immediate exclusion of the bidder.

In bid phase 2 the company will intensify its contacts with providers on the short-list. A second Request for Proposal (RfP 2) is drawn up, informing bidders in detail on the IT services required. In addition, selected providers are invited to present and discuss their bids, permitting the company to obtain a detailed picture of the respective outsourcing concept (in particular with regard to staff transfer), outsourcing services and costs, and other terms of the proposed cooperation.

The company will want (and have) to ‘live’ with its IT outsourcing partner for many years. It is therefore imperative to establish through thorough discussions whether potential partners will really be a good match for the company in the long run. This also includes ‘soft factors’ like management philosophy, employee conduct, communication style, and many others which could turn out to be serious obstacles to the cooperation.

Reference visits to customers of the IT provider will help to round off the ‘familiarization phase’. Many things can be made to appear in a positive light in the context of a proposal; companies should therefore take the opportunity to pay visits to existing customers of the IT outsourcer’s – both, visits arranged by the outsourcer itself and visits arranged directly with the respective customer (and without prior notice to the provider). Following discussion with the company, IT outsourcing providers will further detail their proposals, possibly revising the services and prices offered.
**Tips for the internal evaluation of final proposals:**

*Evaluate in several dimensions:*
The final evaluation of outsourcing proposals should always be carried out by the entire team in charge of the bid procedure. In particular HR, the legal department, and purchasing should play a major role.

*Ensure neutrality of IT staff:*
In the majority of cases, the company’s current IT staff will be transferred to the IT outsourcer. In the course of the process there will be increasingly frequent contacts between IT staff and the provider, and it is only natural that IT people will think about which of the providers they would prefer to be their future employer. In order to keep control over the different options, management should make sure that IT staff remain neutral.

The detailed and revised proposals are finally evaluated in the second round. At this point in time, the company’s specific concerns have been clarified in several discussions and presentations with the remaining bidders, so that the services and costs specified in the updated bids will be clear and comparable. While in this phase economic criteria will usually be given highest priority, the company should make sure to take proper account of its strategic requirements as well, to ensure that the future outsourcing partnership will provide optimal and long-term support. If, for instance, an expansion to China is intended in the near future, the IT outsourcer should be present there or, at least, be able to present a conclusive concept.

On this basis, the company will select a preferred IT provider from the remaining candidates. Both parties then sign a *Letter of Intent (LoI)*, thus initiating a limited Due Diligence and negotiation phase. Since it will be in the company’s interest to keep control of the negotiation progress, the results of each negotiation round should be recorded in-house. Likewise, the company should insist on drawing up the outsourcing contract and scheduling the negotiation dates, and refuse to give up the helm at any time.

At the end of the second bid phase the company will have selected its preferred IT provider. However, as long as a contract has not been concluded it will be advisable to keep the second-priority candidate ‘on the back-burner’ – and to let the preferred candidate know about it. This will strengthen the company’s negotiation position, and offer a realistic alternative in the event that, contrary to expectations, negotiations with the preferred supplier fail.

### 3.1.4 Using the outsourcing contract to constitute a long-term partnership

In the course of the contract negotiations, the course will be set for either a long-term partnership or a dead end. There is a series of typical causes for later failure, all due to contracts negotiated insufficiently:
Tasks have not been defined clearly enough: Often, the company’s targets and respective service levels are not clearly defined at the beginning of the partnership. As a result, the services rendered by the IT provider either do not meet the company’s needs or are not duly acknowledged by the company. To provide a sound basis for resolving such conflicts, the contract should stipulate in detail the reporting procedures for services rendered.

The outsourcing partnership is too rigid: Companies change; outsourcing partnerships must be adjustable. For instance, the number of IT systems and desktop work-stations may increase due to mergers and acquisitions, or decrease due to restructuring. In these cases, corporate reality will soon no longer match the outsourcing contract. Even if the company ‘only’ grows organically, consequences for the planning data must be clarified in the course of negotiations, or discussed early in the cooperation, in order to be taken account of in the design and development of the outsourcing partnership.

Prices are considered too high by payers: In large groups, outsourcing contracts are often concluded centrally, while the costs incurred by the respective services are allocated to the divisions and must be borne by them (or gained through their economic performance). Not surprisingly, costs are often closely monitored in these cases. Allocation ratios which have not been made sufficiently clear, or prices that were originally considered appropriate but have not been adjusted to recent economic trends (such as overcapacities and resulting price drops) will then be a constant source of annoyance. To avoid such nuisances, prices can either be tied to economic indexes, or regularly (every one or two years) benchmarked by external experts.

A European service company facing illiquidity sold a number of assets, including several IT subsidiaries. The acquirer was chosen based on its price offer, which by far exceeded the usual level. While this helped the company temporarily to overcome its cash shortage, the IT provider was forced to earn back the purchase price, and consequently set the prices for its IT services – to be paid by the divisions – well above market level. From the very start, the outsourcing relationships suffered from the fact that all advantages from the high selling price remained at headquarters, while the divisions, which were engaged in fierce brand competition, had to pay excessive IT prices. Since they were also the ones to deal with the IT outsourcer in day-to-day business, the relationship was programmed for permanent conflict – which soon led to the renegotiation of the outsourcing contract, as this was the only way to ‘rescue’ the partnership.

In order to place the outsourcing partnership on a sound basis from the beginning, the company and its IT provider need to agree on a series of details in negotiating both, the master agreement and the individual Service Level Agreements (SLAs).
The Master Agreement will contain all general stipulations regarding the duration and scope of the contract, price conditions, rights of cancellation, property rights, and others (figure 41). Further stipulations will concern compliance monitoring and the continual adjustment of the contract to possible changes in requirements – for instance, how to deal with changes in the types of services rendered, and how they will affect prices. In addition – similar to the spin-off of an internal IT provider – arrangements must be made for a six- to nine-month transitional phase during which all IT tasks are transferred from the status quo to the future operations model. Last but not least, the company should ensure that the IT provider will treat all information obtained confidentially, strictly adhering to data protection laws and industry-specific regulations.

If the company decides to outsource its entire IT, the congruence of interests should be safeguarded by corresponding incentives incorporated in the payment model, as well as cancellation clauses in the contract. In one case, the outsourcer’s compensation was not based on service prices stipulated in the SLAs but simply on the changes in certain items on the client company’s balance sheet, which were highly influenceable through IT. This constituted a clear incentive for the outsourcer to contribute to balance sheet improvements and align all IT optimization and upgrading efforts to this single goal. Such incentive and compensation
systems are possible; however, they require mathematic precision to be set up prior to the signing of the contract: Both, the client company and the IT outsourcer will be required to understand the cause-and-effect relationships between IT systems, business processes, and balance sheet figures, and to agree on a corresponding calculation formula – which also needs to cover the simulation of possible scenarios in the company’s development (such as market share gains or losses) as well as possible effects on IT and balance sheet figure.

Even during contract negotiation, the company should also think about the time after its expiration. To maintain flexibility, arrangements should be made with regard to a possible in-sourcing of IT, or outsourcing to another IT provider, covering aspects like the obligation to cooperate, periods to be observed, and the coverage of costs. For if the company really decides not to renew the contract, this will usually be preceded by a period of conflict between both parties, resulting in a very unfavorable basis for further discussion if no arrangements have been made beforehand.

While the Master Agreement will contain the general terms valid for all SLAs, the latter will rule the details on individual services to be delivered, such as scope and availability, unit prices, obligations of the client to cooperate in the provision of services, and others. In negotiating the SLAs, the company should be sure to define its requirements very clearly so that the outsourcer’s services can objectively be measured against them. In particular, this will include the definition of parameters, times, and responsibilities for measuring, as well as of a mathematic formula to point out the correlation with bonus/malus components of the IT provider’s compensation.

Table 3.2: Typical measuring parameters for the service level stipulated in an SLA

| Requirements of the company | Measuring parameters for service level |
|-----------------------------|---------------------------------------|
| Services must be available (hardware must be functional; software must be usable, etc.) | Average availability (may be between 95 and 99.9 percent, with clear price discounts for every percentage point) |
| The IT provider should deal with emerging questions according to priority, and within an acceptable period of time | Response rate (generally, 80 to 90 percent of replies should be received within a given time frame) |
| The IT provider should solve emerging problems according to priority, and within an acceptable period of time | Problem-solving rate (generally, 70 to 80 percent of problems should be solved within a given time frame) |
| System performance (speed) should be acceptable | System response times (generally, 80 to 90 percent of responses should be given within less than a second) |

At first glance, drawing up detailed service level agreements may seem like avoidable extra work. Nevertheless they are highly recommendable, for without them there will be ambiguities with regard to services and prices which, in the course of outsourcing relationships, have often been the cause of complaints on both sides.
3.1.5 Actively managing the outsourcing partnership

An active management of the outsourcing partnership – including how changes are dealt with – is the most important and difficult tasks in the outsourcing process. There is a risk of immense losses if the partnership fails, while both the company and its IT provider can benefit from a harmonious and productive cooperation.

Both partners should be aware that an IT outsourcing partnership designed to last several years will hardly ever remain unchanged for the duration of the contract. Time and again there will be modifications – mostly initiated by the client company, but sometimes also from the provider. The company, for instance, might wish to include new requirements to locations, services, or other factors, or ‘readjust’ individual SLAs, typically including details such as user help-desk service times. On the IT provider’s part, innovation leaps in IT might trigger a rapid upgrading of the IT infrastructure or application landscape which, subject to agreement, can be passed on to the company in the form of effectiveness and efficiency increases (examples: Computing on Demand/Grid Computing). A new topic for both parties is the transfer of labor-intensive tasks to low-cost countries in Eastern Europe or to India. Due to the resulting structural changes in the IT outsourcer’s performance, companies and providers should evaluate the risks and opportunities of off-shoring jointly.

Whatever the cause of changes in the outsourcing partnership, the fact of the matter is that they are likely to happen. The challenge lies in recognizing them early on and managing them in a professional manner. Throughout the lifetime of an outsourcing partnership there will be early signals of an emerging need for change. In most cases, alarming signals will prevail and should be taken very seriously. Typically, everything will start with users in the divisions complaining about the IT provider’s staff, which they perceive to be lacking in customer friendliness, too expensive, and too slow in their response times. Subsequent discussions with the IT provider will reveal that there are also causes for complaint, for example because the client company’s requirements are not specified clearly enough, communicated too late, and targets are in part unrealistic.

According to analyses of failed outsourcing partnerships, the failure is hardly ever the fault of one partner only; rather, complaints on both sides tend to add up to a severe lack of mutual understanding, finally culminating in a total communication breakdown. Both partners are dissatisfied with how the outsourcing partnership has turned out, or fail to reach their individual objectives. Since contractual sums are usually substantial – in comprehensive outsourcing situations, several hundred million or even several billion Euros are not uncommon – these disagreements often end up in court. This, however, represents a worst-case scenario, for an outsourcing partnership is not that easy to dissolve.

It has been a proven practice to take precautions right at the beginning of the partnership ensuring that necessary changes will not cause the partnership to fail. An important prerequisite is continuous communication between the company’s IT organization and the IT provider. It is institutionalized at three levels:
At the highest level, members of a Review Board – representatives of top management and the corporate CIO as well as of the IT provider’s management board and key account management – meet once or twice per year to determine the long-term strategic direction of the cooperation – such as, what areas will need new IT systems or how technology leaps can be used to the mutual benefit of both partners.

The Steering Board – comprising the corporate CIO and representatives of business departments/divisions, as well as key account managers and industry/functional specialists from the IT provider – meet three or four times a year to take important single-case decisions on new developments in the context of the strategic overall plan, or major changes in SLAs (services and prices).

At the operating level, a Service Management Board – consisting of corporate CIO and one person specializing in the management of the outsourcing contract, as well as key account managers and service specialists from the IT provider – meet once a month to decide on details of the cooperation, as well as smaller adjustments to SLAs, and to generate current reports on the cooperation.

On the company’s part, important change requests will usually refer to the IT services agreed upon – which the company will want to expand or reduce – or the prices of existing services. While changes in the services outsourced are usually uncritical, demands for price changes often lead to disagreements, possibly even to the premature termination of the partnership. It has therefore proven useful in practice to define a set of mechanisms which will prevent the company’s expectations and the IT provider’s services and prices from drifting apart.

Quality monitoring carried out at regular intervals will help to measure service quality and customer satisfaction in day-to-day cooperation. In addition to quality analyses and customer surveys, some IT providers have begun to establish online quality data bases where appointed representatives of the company (such as the CIO and major users in the divisions) are free to give current evaluations of the IT provider’s services at any time they please, for instance by entering them in a ‘traffic light’ system with additional room for feedback. Such procedures are very useful to quickly recognize, diagnose, and eliminate emerging problems. At the same time they improve the IT provider’s negotiation position when it comes to bidding for further outsourcing services, since the – hopefully high – service quality it has been delivering can now be measured objectively.

An institutionalized improvement program helps to continually adapt the partnership to both parties’ changing requirements throughout its lifetime (figure 42). This is necessary because it will only be after the transfer of IT staff to the IT provider, and the subsequent implementation of the partnership, that the company starts gaining concrete experiences with what the SALs actually mean in day-to-day business. This is often the point where the user helpdesks’s contractual service and/or response times turn out to be insufficient, or prices for the services rendered are perceived as being too high compared to the situation pre-outsourcing.

When closing the contract with its IT provider, a manufacturing company had agreed to user help-desk service hours from 6 a.m. to 8 p.m. The IT provider had established two service
shifts which were billed to the client company. When this service level was evaluated in the context of a continuous improvement program, it turned out that far more than 90 percent of staff were present between 9 a.m. and 5 p.m., so that one shift at the user help-desk would be sufficient. By adjusting this service level to actual demand, the company was able to achieve substantial cost savings without any noticeable negative consequences for users.

Like the changes in services, demands for price changes are usually foreseeable: Customers are entitled to expect prices to decrease in the course of an outsourcing partnership, as the outsourcer will also keep optimizing its internal prices. Additional factors giving cause for price adjustments will include changes in the market. During the e-business/IT hype in the late 1990ies, for example, prices for IT services were very high due to a lack of qualified specialists. These times have changed since the stock market crashed. If a company has concluded one or several outsourcing contracts during the high-price phase, it stands to reason that it will be able to obtain much better financial terms by adjusting or renegotiating them.

Another important mechanism is the systematic cost management of IT operations, in the context of which both parties should – ideally jointly – continue evaluating and actively managing the ratio of IT performance and prices. This implies, however, that a regular evaluation and adjustment of IT services and prices, based on transparent costs, has been included in the outsourcing contract. In practice, a systematic cost management will rarely have been agreed upon at the very beginning of a partnership; therefore the company should at least attempt to introduce annual performance and price benchmarking after one or two years, in order to obtain an objective and broad basis for negotiating any adjustments that may become necessary at a later point.
For other sourcing categories, purchasing would simply set up a bid procedure and use the results as a basis for negotiation. For IT outsourcing this is not feasible: First of all, the very subject matter is so complex that it would take too much time and effort to issue a new bid invitation. In addition, all other IT providers would be aware that the company has been having contractual ties with one outsourcer for several years. And in view of the fact that it takes plenty of time and resources to seriously deal with an outsourcing request, requests clearly meant to serve as a benchmarking tool would promptly be sorted out. It is therefore preferable to use a benchmarking firm to be selected jointly by the company and the IT provider, commissioning it to conduct a comparison of market prices at least for key services. If market prices are within a predefined corridor (such as +/- 5 percent) adjustments will be made automatically. If price benchmarks are outside the agreed corridor, the Steering Board will have to find a solution, which in many cases will be renegotiation. If the outsourcing contract covers a very large scope of services, it may be advisable also to reevaluate the company’s IT demand, providing management with a clear view on the IT outsourcing partnership and its goals.

Price negotiations – whether they refer to adjustments within a given contract or complete renegotiations – need to be prepared thoroughly. Just like the initial bid invitation and conclusion of the outsourcing contract, they require a negotiation team consisting of the corporate CIO, representatives of IT controlling, the legal and purchasing departments, and IT users. It goes without saying that the IT provider will be less interested in renegotiating than the company, in particular since the client company is bound to the contract and, for its duration, will hardly have a legal handle to enforce any changes (temporary monopoly). Canceling the contract, on the other hand, will be very difficult due to the complexity of IT, the negative effects on business resulting from temporary non-availability of the IT services outsourced, and the – often very drastic – contractual penalties.

The IT provider’s willingness to adjust prices will depend on the answers to a series of questions, which the company can influence in part:

- **What is the balance of power in the outsourcing partnership?** If it is a large-scale outsourcing contract with a leading company, the IT provider will hardly be in a position to risk losing the contract. Rather, the provider will be interested in a solution avoiding negative publicity, in particular as it is likely to be in negotiations for further contracts in the same industry.

- **What are the incentives?** The company’s negotiation position will be best if it has not entirely outsourced its IT. Additional potential for the IT provider will be a powerful incentive for demonstrating flexibility.

- **How great is the price difference compared to market prices?** The provider will, of course, be aware of the margins obtained with the client company. More than 10 percent above market price are not feasible in the long run.

A company and an IT provider had concluded a 10-year outsourcing contract amounting to nearly two million Euros. When prices where compared for selected services it turned out
that they were clearly above market level, leading the company to assume that this was also true for the remaining services. A detailed benchmarking was conducted, revealing substantial opportunities for cost reduction in the computing center as well as in end-user computing (desktops and software, LAN/WAN, user help-desk). Renegotiating the existing contract enabled the company to reduce its annual costs by 20 percent; in addition, contractual penalties for purchase quantities below agreed levels (the company’s demand was declining) were ‘negotiated out’.

In some cases, the need to renegotiate and modify the outsourcing contract will be recognized not only by the company but also by the IT provider. Under some contracts, for instance, the IT provider is responsible for managing and developing the IT while the company retains the right to choose the software or select a hardware supplier. Stipulations like these limit the outsourcer’s possibilities to bundle quantities and negotiate better prices with suppliers. If IT infrastructure technologies are concerned, they can also make it difficult, if not impossible; to integrate the company’s IT into the outsourcer’s business system. To give an example: The IT outsourcer might want to connect the company’s computing center to a central control station to ensure cost efficient operations at night, on weekends, and on holidays. This will, however, be impossible if the company insists on using incompatible software. In such a case the outsourcer will be justified in demanding modifications to the contract, to be able to better achieve the efficiency targets specified for the partnership.

Even if a company has originally had good reasons to opt for outsourcing, this does not necessarily mean they will remain valid forever. Therefore, the make-or-buy decision should be revised periodically in the context of strategic planning. Changes in the market, a realignment of the company, new IT developments, or changes in the IT provider’s operations can be a cause for either expanding or reducing the scope of the outsourcing relationship. In any case, the company should decide no later than twelve months prior to expiration, whether to renew the contract or look for another outsourcing partner. A new bid invitation will take at least six months, and so will usually the transfer to a new outsourcer and/or the (partial) insourcing of IT.

| Checklist: Is your company ready for outsourcing?                  | Yes |
|------------------------------------------------------------------|-----|
| Have the objectives of outsourcing been clearly defined?          |     |
| Is the company prepared to go through the necessary change process – including both, the IT staff to be transferred and the IT users who will have to deal with new contacts? |     |
| Has the ‘right’ outsourcing partner been selected – taking into account both, economic and long-term strategic and cultural aspects? |     |
| Have contractual conditions been clearly agreed on between both parties, taking into account possible future changes in the company? |     |
| Have possible scenarios for ‘the time after’ been discussed, prior to the conclusion of the contract, and corresponding stipulations been included? |     |
3.2 Using Factor Cost Advantages by IT Offshoring

When, in view of the Y2K threat, Indian software firms started taking over programming tasks at low prices, a new market had emerged: IT offshoring. Meanwhile, a series of other countries have positioned themselves as offshoring suppliers – from China, Malaysia and the Philippines, Australia and New Zealand, to Russia, Mexico and Brazil, Canada, Ireland, and finally Eastern European countries like the Czech Republic and Hungary. The outsourcing of IT services to geographically distant regions is now considered a growth market with exciting future potential (figure 43).

![Figure 43: Growth of the IT offshoring market; Source: A.T. Kearney](image)

At first glance, IT offshoring does not seem very different from IT outsourcing. Consequently, recommendations will be similar with regard to the selecting and maintaining of provider relationships. There are, however, essential differences in the services suitable for IT offshoring, and the cost advantages to be obtained. At the same time, IT offshoring requires different risks to be evaluated than would apply for most globalized IT outsourcers. Companies looking into IT offshoring should start by identifying the services which, according to their IT strategy, are suitable for offshoring – then choose an IT offshoring model, and lay out the life-cycle of the offshoring relationship as they would in the case of IT outsourcing.

3.2.1 Developing a corporate IT offshoring strategy

IT offshoring is interesting for both, client companies and IT providers. Companies relying on the strategic sourcing of IT will be able to exploit factor cost advantages and/or reduce the degree of vertical integration. IT providers can use IT offshoring as a means to reduce IT
costs and improve competitiveness. Offshoring, then, adds to the selection process in the context of companies’ sourcing decisions; at the same time, it plays a vital role in the decision for a certain IT provider: Providers using offshoring to reduce their own costs will be able to pass on the resulting cost advantages to their customers.

Figure 44: Optimization strategies for business processes; Source: A.T. Kearney

IT offshoring fills a gap in the previous approaches for business process optimization (figure 44):

- **Shared services** – The internal bundling of business processes – are used primarily for labor-intensive processes with customer contacts (for example, call centers). Companies can achieve substantial cost advantages through the shared use of certain tasks; however, since these processes can comprise critical internal know-how in some industries, the pros and cons of outsourcing them must be carefully evaluated with regard to the risk of a know-how loss.

- **Business process outsourcing** – Subcontracting business processes to an external provider in one’s home market – is possible for internal processes, including those with customer contact (such as call centers and user help-desks).

- **Business process offshoring** – Transferring business processes to lower-cost locations – is suitable in particular for labor-intensive internal processes which are highly standardized and not very critical in terms of corporate know-how (such as HR administration, accounting, transportation). Cost reductions will mainly result from factor-cost advantages.

- **IT outsourcing** – Transferring (predominantly) IT infrastructural services to external providers in one’s home market – is suitable primarily for standardized processes, such as the
operation of computing centers or communication networks, with cost advantages resulting primarily from the IT processes

- **IT offshoring** – Transferring labor-intensive IT services to lower-cost locations – has established itself for standardized, clearly definable processes requiring limited coordination but a substantial degree of project work (such as software development and maintenance, as well as user help-desks). Topics less suitable for IT offshoring include those requiring proximity to the market or customer, such as CRM applications or customer portals providing access to corporate information and processes, as well as IT consulting, developing professional concepts, and training. Cost advantages will result, above all, from lower labor costs at offshore locations.

The ‘new’ concept meets with lively interest in the U.S. and Europe, particularly in industries with a substantial share of highly standardized, labor-intensive processes with limited strategic relevance to the respective company (such as banks and insurances). An A.T. Kearney survey of 120 financial service providers in the U.S. and Europe in 2003 revealed that so far, companies’ experiences with offshoring (mainly IT offshoring, only in some cases also business process offshoring) have been positive: Almost every second company has achieved over 30 percent savings, 17 percent of companies even more than 50 percent. Among other things, this also reflects the high degree of professionalism which offshore suppliers have managed to build in the past years – although at different degrees of maturity. While business process offshoring is currently still in its infancy, IT offshoring has already reached a medium to high level of maturity:

- The initial service offerings have reached an advanced stage of maturity. They include (Y2K) debugging, the development and maintenance of mainframe systems, migration and upgrading of application systems, release changes as well as code conversion.

- A lesser degree of maturity applies for IT services in the context of the introduction and modification of standard software (such as ERP systems) as well as upgrades programmed in-house.

- The new development of application systems has reached a medium stage of maturity

- Offerings on EAI (Enterprise Application Integration) or business intelligence (such as data warehousing) are still at an early stage of development

- Service offerings like help-desk, call centers, business process outsourcing are at the beginning of their market development. They are, however, gaining importance for offshoring, and some offshore suppliers have already gained experience with these services.

Companies opting for offshoring their IT services should take account of these conditions, and compare them to their strategic goals to arrive at a sound offshoring strategy. IT services that could be essential to competitive differentiation in the medium or long term should definitely be excluded. By contrast, the offshoring of standardized IT services can help free up substantial financial and personnel resources for value-added IT projects.
Tips for selecting services suitable for offshoring:

**Develop migration strategy:**
Make sure that local IT staff are involved early in your offshoring plans, and prepare them for deployment at offshore providers

**Optimize first, then go offshore:**
Consolidate your IT processes in shared-service organizations or internal IT providers before outsourcing them to an offshore IT supplier

**Go for early wins:**
Begin by selecting IT services for offshoring, which can reach a steady state in less than six months. Make sure you select closed processes only.

Even more than IT outsourcing, IT offshoring strategies need to take account of the company’s current situation: Companies which still have deficits in IT optimization should eliminate them before thinking about outsourcing to offshore IT providers. Likewise, transparency on the IT costs and tasks – company-wide – will be an essential prerequisite for evaluating the risks and opportunities involved.

Uncoordinated IT offshoring projects in individual division involve a major risk, in that the value gained through IT offshoring could be destroyed by enormous migration costs. When the offshoring potential is evaluated from an integrated point of view, it will be advisable to involve all stakeholders on both, the IT and the users’ part, in order to make transparent the benefits of IT offshoring for the company and eliminate fears and uncertainty in the IT staff.

Systematic development of an offshoring strategy for a U.S. based group

In a U.S. based group, several divisions had initiated offshoring to test out the possibilities it offered. These individual efforts were now to be integrated in a corporate offshoring strategy, in order to limit the number of offshore suppliers and reduce the amount of time and effort required for all those individual decisions.

A key factor for success of the offshoring effort was its systematic preparation: First, the objectives of offshoring and the restrictions following from the corporate strategy were determined, and the future requirements to IT derived. On this basis, suitable topics for offshoring were identified organization-wide, and a value proposition developed. Totals costs were determined for each application system and IT service, compared to the costs at different offshore locations, and prioritized. As a result, the user help-desk and the development of individual application systems emerged as priority themes. Next, suitable locations and offshore suppliers were selected. For the help-desk, Canada turned out to be a slightly better location than India; in the field of application development it was vice versa.
Once this was established, a corporate offshoring strategy was developed, including the requirements to the offshore suppliers (type of suppliers, global, company-wide contracts and service levels). This strategy was broken down to division level, and the detailed offshoring issues and time frames for implementation were agreed on with the departments concerned. A key element for success was the integrated implementation plan, based on agreed sub-plans per division, which was carried out successively.

3.2.2 Evaluating risks and opportunities of a location

Whether companies will be able to fulfill their cost and benefit expectations, and whether they will build a successful and long-standing cooperation with their IT provider, largely depends on their selection from the numerous offshoring locations available. The systematic selection of a suitable IT offshoring location should be based on three key criteria: resources, location factors, and the offshore country’s cost position. A.T. Kearney has evaluated key outsourcing countries against these three criteria, based on our project experience, market surveys, and expert interviews (figure 45). This evaluation confirmed India’s dominant role: The country received best values in both, costs and HR resources.

![Figure 45: Evaluation of offshore locations](image)

An essential criterion for the success of an IT offshoring initiative, frequently emphasized by companies, is the availability of qualified local personnel. Many companies foster staff rotation between onshore and offshore, which is not easy to do on a large scale with IT providers in faraway countries. Time changes are another factor that makes the management of the IT partnership highly challenging. In view of twelve hours’ difference between India and the
U.S., and six hours between Europe and the Philippines, office times in the regionally dispersed project teams will have only minor overlaps. Moreover, complex matters and business processes will be harder to communicate long-distance, in particular if the business environment in the countries concerned is very different from one’s own. Last but not least, the protection of intellectual property, such as program codes, and the observance of licensing laws must be ascertained – for instance, through respective regulatory measures in the suppliers’ countries.

Cultural differences are another crucial factor for the offshore provider’s ability to fulfill the customer’s requirements: If two people speak to each other in English this does not necessarily mean they understand one another. German companies accustomed to working with qualified IT experts have often experienced that their specifications, which are in part highly complex, are perceived to be imprecise by the IT offshore supplier, and fail to be fulfilled in a satisfactory manner. In an IT offshoring partnership there is no sense in expecting that the provider will understand the context of one’s request and align its execution with the user’s goals, possibly even make own suggestions for its execution. U.S. based companies, used to issuing clearly structured and precise instructions without any ‘irritating’ contextual comments frequently get better results.

It is mainly due to culture and language factors that companies in the U.S. and central Europe differ in their choice of IT offshoring locations: In the U.S., 90 percent of all companies prefer India (figure 46), with China at Philippines following at some distance (20 percent each).

Quite different were the results of an A.T. Kearney survey among companies in German-speaking countries: Only 50 percent quoted India as their preferred location. Again, the reasons are obvious: Even in the globalization age, language barriers vis-à-vis India is still higher for a German company than they are for a U.S. company. And while it is true that there are also language barriers vis-à-vis Eastern European countries, they are much ‘closer’ to Germany not only geographically, but also politically and culturally – in particular after the European Union’s recent expansion to the East. In addition, the higher degree of vertical integration in German companies is also reflected in a higher share of in-house IT. It comes as no surprise, then, that IT offshoring has long been popular in the U.S., whereas in Europe (with the exception of the U.K.) it is still in its beginnings.

All of the countries listed have made considerable efforts over the past years to build a stable infrastructure and extensive data networks, and they offer highly qualified, English-speaking It specialists. Their long-term success in the offshoring market, however, depends not only on economic factors but also on political trends and global influences.
Above all, these include terrorism and military conflicts: They can prevent companies from transferring their business processes to the regions concerned, such as the Middle East, China, Taiwan, or Corea. In addition, there are risk factors for traveling, such as diseases or epidemics: In the case of SARS, for instance, the IT offshoring regions Asia and Canada were affected the most. Another risk for the development of the IT offshoring market consists in (hacker) attacks on data networks: As IT offshoring depends on the possibility to exchange data across long distances using a variety of networks, any attack on these data transmissions would have disastrous effects on the IT offshoring market. Finally, protectionist measures taken by the customer countries can play a major role, if they are used with the aim of preventing the migration of jobs to ‘low-income countries’. The supplier countries, on the other hand, must be able to offer not only a qualified workforce, but also adequate incentives to prevent a migration of these specialists, who will be sought after in the international labor market. According to our surveys, leading companies do no longer rely on one IT offshoring location only, but pursue multi-country strategies. This way, should there be a natural disaster in, say, New Delhi, they can use Manila as a back-up.

In the past years, the attractiveness of IT offshoring was mainly based on the cost savings potentials which, depending on the location, could be anywhere between 10 and 70 percent. Cost advantages from IT offshoring mainly result from the lower labor cost level in offshore countries. This is a major issue for the customer countries where labor costs are high: After deduction of hardware and software costs (40 to 45 percent on average) the remaining 55 to 60 percent of TI costs go to internal labor or external providers. This cost block can be considerably reduced with offshore locations (figure 47).
Labor costs strongly depend on the cost of living in the particular country, the wage level, and the educational level of employees. Costs of IT programmers, for instance, are 60 to 70 percent lower in India than they are in the U.S. While labor costs are currently rising in India – partly at a faster rate than in the industrialized countries – they are not expected to reach comparable levels any time soon. This may, however, change along with the increasing consolidation of IT offshore suppliers: Even today, the Indian offshoring market is dominated by five suppliers which have made first efforts to expand to other offshoring countries and Europe. ‘Globalization’ of the industry, however, will inevitably lead to ‘globalization’ of labor cost.

The situation is similar in the locations preferred by European companies. At present there are still considerable differences in labor costs, making ‘nearshoring’ to Eastern European countries very attractive: While average labor costs in the ‘old’ EU (prior to expansion) amounted to 22.7 Euros per hour, it is only 2.9 Euros per hour in countries like Poland, the Czech Republic, Hungary, and the Slovak Republic. However, wage levels will clearly rise in those countries in the process of their integration into the EU: In Hungary, for example, wage levels are expected to double between 2000 and 2006 according to corresponding analyses.

For all these reasons, the cost issue should be considered with great caution – as in the case of IT outsourcing: Current labor cost advantages are partly offset by higher transaction costs, additional expenses for documentation (due to the geographic distance and time differences) as well as travel costs. Experiences in the U.S. and U.K. – where the outsourcing of complete services and partnering with other companies are common practice – have shown, however, that economic benefits to companies from offshoring go far beyond the cost savings expected:

- **Higher productivity**: As IT offshore suppliers annually improve their internal processes by 10 to 15 percent, their productivity is often superior to that of European competitors.
Better service quality: A major share of IT offshore suppliers has achieved a very high level of international certification, such as SEI CMM Level 5 (the highest level) while most IT providers only fulfill CMM levels 2 or 3. This involves considerable quality advantages, such as lower error rates.

Flexible resource quantities and capacities: IT offshoring was begun in 1999, at a time of scarce IT resources. Meanwhile, in particular India has established itself as a new and, above all, flexible labor market (comprising more than 400,000 IT specialists).

7x24 capacities: Internationally leading IT providers with corresponding capacities in all continents and, as a result, regionally dispersed project teams, are able to guarantee 7x24-hour capacities. (Upon closer scrutiny, these theoretical 7x24 hours will be cut down to a very short time period, as on a typical 8- to 12-hour day within a given time zone, around 10 to 15 percent of labor will be spent on documentation and handing over tasks to other parts of the worldwide project team. In view of labor cost advantages, the 7x24 benefits should be weighed against alternative solutions, such as two-shift models in another offshore location.)

For each individual IT task, the strengths and weaknesses of each offshore location, as well as the opportunities and risks in three dimensions – cost position, location factors, and resources – should be analyzed in detail.

The IT task itself should be evaluated against two criteria: its potential value to the company (number of IT staff, and costs per IT staff member) and the possible savings. Only if IT tasks involve substantial value to the company while incurring limited migration cost – for instance, if existing IT staff can be put in charge of managing the IT offshore supplier – will the company draw maximum benefits from this optimization process.

3.2.3 Selecting a suitable offshoring model

Once an adequate offshoring location has been chosen, a suitable IT provider must be selected. IT offshoring services can either be delivered in-house, or outsourced to an offshoring partner or an external provider (figure 48). In either case, the division of tasks between the company and the provider needs to be clarified.
In-house models imply that the company establishes its own location in an offshore country. This will be an option only for large groups present worldwide, which consider IT a core competence while involving IT offshoring providers to exploit labor cost advantages. These companies will retain control of the entire project, which will require them to have the necessary capabilities and experiences. Examples of companies which have opted for this solution early on include General Electric, with 15,000 employees in eight offshore locations, as well as HSBC with 2,000, and American Express, also with 2,000 employees in India. Intel, Boeing, and Motorola have established locations in Russia.

This option is suited in particular for longer-term tasks, such as IT processes in IT operations, or large-scale application development projects where IT resources are scarce and there is a substantial need for resources to meet project milestones. It is also chosen by most global IT providers who improve their cost structures (and prices) by transferring tasks to offshore countries.

Outsourcing models represent the other extreme: Companies outsource IT services to an IT offshoring partner who will execute the entire project or service offshore. This solution is suited for simple, clearly defined tasks, and is often chosen for the operation of application systems and hardware, user support, and self-explanatory mass processes like data consolidation. Possible outsourcing partners for the ‘sheer outsourcing’ model are the large IT offshoring providers, such as TCS, Infosys, Wipro, Satyam, HCL Technologies, and Cognizant. The disadvantage of this solution, which involves no exchange of resources between the company and the provider, is the considerable management and control effort required from the company. Some companies resolve this by sending individual members of their IT staff to the offshore location to manage the provider relationships at least during the initial phase, and facilitate the know-how transfer. Outsourcing cum staff transfer is also used in the coopera-
tion with smaller offshoring providers which do not have sufficient resources to build an international presence and operate from the company’s local premises.

For many companies which have included offshoring in their longer-term strategy, the best solution will be joint venture models with an IT offshoring partner. The provider’s staffs, together with the company’s IT staff, carry out the design phase on the company’s premises while the later implementation will happen off-shore. This way, there will be no ‘start-up’ phase for hiring suitable candidates, and for selecting and leasing suitable infrastructure. Likewise, the company will not have to go through the initial, often painful learning phase. In particular companies with little outsourcing experience, or with reservations against offshoring, will find this option attractive since it permits them to manage the know-how transfer while the IT offshoring provider will monitor the off-shore activities. Language or cultural differences will be mitigated as the regional distance is overcome.

In joint venture models, the BOT approach can be used when the IT offshore supplier returns the IT tasks to the company after a predefined period of time. In this case the staff of the offshore supplier will be deployed both, on-site and off-shore. On-site topics will be strategic issues, architecture, design, implementation, while off-shore activities will include development and maintenance/upgrading: It is obvious that this model will be particular suitable for complex projects. An example is the joint venture between British Telecom and the Indian IT-offshoring provider Mahindra. The BOT model can also be reversed, in that the IT offshoring provider initially focuses on implementation support, successively taking over the location as predefined milestones are reached. This model has been chosen by the insurance company AIG with Polaris, as well as British Airways with WNS.

The future will show which of these models will ultimately turn out to be the dominating one. It is, however, becoming more and more apparent that in the case of IT offshoring – as opposed to IT outsourcing – the geographic and cultural distances speak for a very fine definition of service relationships. IT offshoring is therefore ideally suited for covering the ‘basic IT needs’ of a company in terms of IT commodities (such as the operation of computing centers and user help-desks), helping them to quickly achieve sustainable cost savings of 20 to 40 percent. By contrast, company-specific and differentiating IT tasks will be kept in-house. As a result, the role of the IT department will change, and with it the IT staff’s qualification profile: Instead of application programmers with extensive IT-system know-how, solution oriented business shapers will drive value-added IT contents with competitive relevance and a clear business focus.
### Checklist: Is your offshoring strategy promising?

| Question                                                                                                | Answer |
|---------------------------------------------------------------------------------------------------------|--------|
| Have the objectives of your IT offshoring strategy been defined clearly and with a careful eye on corporate strategy (for example, growth targets)? |        |
| Have all stakeholders been involved in your offshoring plans?                                           |        |
| Have IT processes been optimized prior to transfer to an offshore supplier?                            |        |
| Have conclusive IT services been chosen for offshoring – labor-intensive, with limited customer contact and non-critical to competitiveness? |        |
| Have the opportunities and risks of IT locations been evaluated with regard to your long-term goals – not only cost aspects? |        |
| Does your offshoring partner maintain the key capabilities you will require? In case of doubt, did you engage several offshoring providers to spread the risk? |        |