

INFORMATION MANAGEMENT: STRATEGY, SYSTEMS, AND TECHNOLOGIES

A PRACTICAL GUIDE TO STAFF AUGMENTATION AND OUTSOURCING

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INSIDE

Defining Staff Augmentation and Outsourcing; Factors in Making the Decision;
Choosing Which Functions to Outsource; Choosing How to Augment Staff**INTRODUCTION**

Almost from the inception of information technology (IT), back in the dark ages when the function was called data processing, the use of contract staff has been a fact of life for many companies. These outside “consultants,” as they are sometimes called, have consistently provided a variety of services, augmenting permanent staff. In the early days, contracting was the only method an IT manager had of obtaining additional manpower or specialized services. Over the past decade, however, a new word has entered the IT lexicon. “Outsourcing” has become a popular method of obtaining IT services.

Although there are similarities between the use of contractors and outsourcing firms, the two types of services have fundamental differences. This article defines the services, differentiates between them, and suggests the functions where each is most appropriately used.

**DEFINING STAFF AUGMENTATION AND
OUTSOURCING**

Whether called contractors, consultants, or rent-a-body firms, the primary function of these IT service providers is to supplement existing

PAYOFF IDEA

Staff augmentation and outsourcing are invaluable tools for the IT manager, serving as sources of additional manpower and specialized services. Although there are similarities between the use of contractors and outsourcing firms, the two types of services differ. Outsourcing works best when the work is clearly defined, and the company is willing to relinquish day-to-day control. In such cases, it frees internal staff for other work, has fixed costs, and transfers risk to the outsourcing company. However, it also reduces flexibility. By contrast, flexibility is the primary advantage of staff augmentation, which is less risky and more costly than outsourcing. Given the benefits and drawbacks of each, IT managers must carefully gauge their situation to gain the maximum benefit of such services.

IT staff. They are typically engaged when the IT department is unable to obtain or retain permanent staff, or when it needs specialized skills for a short period. As may be surmised from the term “staff augmentation,” contractors function as members of the department, taking their day-to-day direction from IT managers. Except for the fact that their paychecks come from a different company, and that their assignments can be terminated on short notice without cause, contractors are virtually indistinguishable from other members of the IT department.

Although some companies have exclusive agreements with one service provider, it is more common for a single IT department to use contractors from a number of firms. The reason for the use of several firms is the IT manager’s desire to find the individual whose skills most closely match the department’s needs. That is because the key component in staff augmentation, as in permanent staffing, is the individual person. Success or failure tends to be measured at the task level, and is dependent on specific staff. Because of this focus, when it contracts for staff augmentation, IT faces many of the same risks that it does with its own staff. Contractors may not perform as expected, or they may quit before a project is complete.

Contractor agreements are frequently informal, and, while engagements may be long-term, many are of short duration. From a contractual perspective, staff augmentation can be viewed as the dating stage of a relationship.

If staff augmentation is dating, outsourcing is marriage. It is legally binding, is typically monogamous, has long commitments, and — in most cases — divorce clauses. In contrast to staff augmentation, outsourcing focuses on services rather than individuals, and success is measured at the engagement level.

Some IT departments use a manufacturing analogy to describe outsourcing, explaining that they have chosen to “buy” a service rather than “make” it in-house. They argue that this is similar to the situation where a plant might choose to buy a standard part rather than make it itself. The analogy is valid; the risks and rewards of outsourcing IT services are similar to those of buying parts. Just as a manufacturer may sacrifice the ability to customize a part for its use, but gains speed or cost savings by buying it, IT outsourcing involves similar trade-offs in flexibility against cost and speed.

Outsourcing differs from staff augmentation in several fundamental ways. When an IT department outsources, it turns over day-to-day responsibility for specific services to a supplier. Although overall accountability for the success of the relationship remains with IT, detailed management and direction is provided by the outsourcer, and measurement is not of individual tasks, but rather of compliance with service level agreements (SLAs).

EXHIBIT 1 — Staff Augmentation versus Outsourcing Matrix

Characteristic	Staff Augmentation	Outsourcing
Formality of contract	Frequently low (or none at all)	Normally formal
Length of engagement	Typically short	Long (normally 2 to 5 years)
Time to engage/disengage	Short (days)	Long (months)
Number of suppliers	Many	One or two
Management of staff	IT department	Supplier
Location of staff	Normally within the IT department	Can be either on- or off-site
Measurement of success	Individual project tasks	Service level agreement
Key to success	Individual contractor	Entire service provider company
Pricing	Time and materials	Fixed fee
Right to hire supplier's staff	Occasionally	Infrequently
Co-employment concerns	Possible	No
Flexibility	High	Low
Overall program	Tactical	Strategic

By design, outsourcing distances IT from the service provider. Work may be done on-site, but it is frequently performed remotely, further reducing IT's involvement with the service. Because outsourcing creates a distance between the IT department and the service it formerly provided, and because agreements are typically long term with penalties for early termination, companies do not undertake it lightly. It is normal to spend months going through a formal request for proposal (RFP) and selection process before actually beginning an outsourcing engagement. [Exhibit 1](#) provides a summary of the differences between staff augmentation and outsourcing.

STAFF AUGMENTATION CONSIDERATIONS

When would an IT department use staff augmentation? Although the answers vary, most staff augmentation projects fall into one of the following categories.

1. *The department is unable to hire or retain sufficient staff to meet its normal workloads.* The booming economy of the late 1990s created a shortage of qualified technical staff in many parts of the United States. For companies that were installing large software suites such as SAP and PeopleSoft, the situation was exacerbated by the demand for IT staff with this specialized expertise. Other companies have a perennial problem retaining qualified staff for a variety of reasons,

ranging from compensation policies to corporate culture. In these cases, contractors are brought in to fill the gaps. They can be viewed as temporary staff, used until permanent employees are hired.

2. *IT needs additional staff for a specific project.* During large system development projects, IT may need more designers, coders, and testers than it has on its staff. Rather than hiring permanent staff when there is no long-term need, IT organizations can use contractors to fill the gaps. Similarly, many companies used outside service providers to assist with their Y2K remediation. Unlike the first case, which had an indefinite term, this use of staff augmentation is for a specific period.
3. *The department seeks staffing level flexibility.* Some companies and industries have a history of boom-and-bust staffing. As economic conditions change, major projects are cut and staff levels are reduced. To avoid having to periodically lay off employees, some companies keep only a core staff, and use contractors during the boom times. Although they pay more on a daily basis for contract staff, they avoid the expense and pain of severing employees.
4. *IT needs specialized skills or knowledge.* During a period of rapid technological change such as the current “E-biz craze,” IT may want to initiate projects using new technology. In most cases, it will not have existing staff with the needed skills. While it could contract with an outside firm to do the development, an alternative approach is to rent the expertise in the form of contractors who will work with in-house staff, providing on-the-job training and knowledge transfer. A primary advantage of this approach is the fact that short-term staff augmentation results in a permanent upgrading of in-house skills.
5. *The company wants to retain day-to-day control of all staff.* Some corporate cultures are not compatible with the transfer of responsibility and task level accountability that outsourcing demands. For these companies, staff augmentation can fill the gaps in staffing levels and expertise, without requiring a cultural shift.

The primary advantage to staff augmentation is the flexibility it gives the IT department. Because of the short-term and ad hoc nature of hiring contractors, IT can move quickly, bringing on additional staff for specific projects and removing them as soon as the work is complete. Flexibility extends to the actual hiring decisions. Although many companies have a list of preferred suppliers, the IT manager normally has a choice of several vendors, and can choose the firm whose employees most closely meet the manager’s requirements.

While staff augmentation may solve many problems, it also raises several concerns. The first is cost. It seems intuitive that, because a service provider seeks to make a profit while most IT departments need only charge out their expenses, contract help would cost more than in-house staff. When hourly or daily rates are compared to the salary and benefits

EXHIBIT 2 — Evaluating Costs of Staff Augmentation versus In-house Staff

1. Add:
 - salary
 - benefits (life and health insurance, pension, etc.)
 - training (course fees and travel)to determine annual cost.
2. Subtract:
 - vacation
 - holidays
 - training time
 - illnessfrom 2080 (40 hours per week times 52 weeks) to determine the number of working hours in a year.
3. Divide the annual cost by the number of working hours to determine the hourly rate.
4. Add:
 - recruiting costs
 - severance and other termination coststo determine the one-time employment costs.
5. Determine the length of the assignment in hours.
6. Divide the one-time costs by the assignment length to determine the hiring/firing surcharge.
7. Add the surcharge to the hourly rate.

An example:

Assume an annual salary of \$60,000, a benefits cost of 30 percent, and annual training costs of \$2000. The employee receives 10 days vacation, 12 holidays, 5 days of training, and 5 sick days.

His hourly cost, without considering recruitment and severance, is \$43.86. If a typical contractor's hourly rate were between \$60 and \$80, it would appear that the company was paying a substantial premium for the flexibility involved in staff augmentation.

However, if the employee was hired for a six-month engagement (1040 hours), with recruiting costs of \$20,000 and termination costs of \$10,000, the hourly surcharge would be \$28.85, making the total cost \$72.71.

costs of employees, contractors do appear to be more expensive. For short-term projects, this may not be the case. As shown on [Exhibit 2](#), a true cost comparison includes more than salary and benefits.

The situation is different on long-term assignments. When used for extended periods, contractors normally cost more than permanent staff. In this case, although there is no economic justification, the IT department may decide that staff augmentation is preferable to hiring permanent staff because of the flexibility it provides.

The second concern, which is also related to long-term use of contractors, is co-employment. In several high-profile lawsuits, contractors successfully argued that they were entitled to employee benefits because they functioned essentially as employees. As a result, companies have

become wary of what is termed co-employment. To avoid this, some have started to limit the length of time a contractor can work for them, in some cases to terms as short as six months. Although this does not impact limited-length assignments such as the provision of specialized skills at a critical phase of a project, the use of contractors for semi-permanent staff augmentation becomes difficult. This is particularly true when the assignments have a steep learning curve, as can be the case with support of company-specific applications. It is at this point that some IT departments first consider outsourcing.

OUTSOURCING CONSIDERATIONS

Even when an outsourcer's staff works on the client company's premises, IT is not vulnerable to claims of co-employment. This is because of the fundamental difference between staff augmentation and outsourcing. In outsourcing, the company contracts for a service, not a person. It is the outsourcer's responsibility to determine how many people will be required to perform the service, and what technical background they must have. The company normally does not interview them, and it does not direct the staff. In short, IT specifies what is to be done, not how to do it.

Although some companies believe that the primary benefit of outsourcing is to avoid the co-employment issues associated with lengthy staff augmentation engagements, there are other reasons why an IT department would outsource one or more of its functions, including:

- *The work is not a core competency.* For example, a manufacturing company may decide that its core business is manufacturing widgets rather than distributing them, and may therefore outsource the warehousing and distribution components of its business. Similarly, an IT department may decide that some functions are not part of its core competency, and may choose to transfer responsibility for them to a service provider. An example of a non-core competency is support of legacy applications while implementing a new system or integrated suite that will replace them. In this case, IT may have decided that its core business is being a systems integrator rather than an application support function.
- *The skill is a commodity.* Some functions, such as mainframe operations, help desk services, and telecommunications support have become commodities. The work provided does not vary substantially from industry to industry, or even from company to company. Because of the standardization and economies of scale, various suppliers have established themselves as experts in these functions, and can perform them at least as well and often cheaper than the IT department.
- *IT has a major skills gap, with no short-term plan to close it.* As noted above, an IT department may use staff augmentation as a way to ob-

tain specific expertise, and transfer that to existing staff. This approach is desirable when the skill is one the department seeks, such as an emerging technology. If, on the other hand, the department has difficulty retaining experts for key systems, such as SAP or PeopleSoft, it may choose to turn responsibility for the entire system over to an outsourcer rather than struggle to keep the department fully staffed.

There are a number of advantages that an IT department may derive by outsourcing one or more functions. The most important among these are:

- Departmental resources previously involved in the function are freed to participate on other projects, including higher priority or value-added work.
- Costs are fixed and may be less than the department was previously paying.
- Risk, especially the risk of losing key employees, is transferred to a company whose primary business is recruiting and retaining technical staff. Because outsourcers' contracts require adherence to specific SLAs, they have a high incentive to provide cross-training that will reduce dependence on a single individual.

An added advantage for some companies is that an outsourcing contract can specify that the supplier offer employment to staff whose jobs are being transferred to the outsourcer. If IT has decided to divest itself of non-core competency functions, it may not have other assignments for the staff currently performing the work. Transferring employees to the outsourcer provides continued employment for the staff, and reduced risk to both the company and the outsourcer.

Although favored by some IT managers, outsourcing raises concerns for others. The fear cited by most critics is that the IT department will lose control over its business. This is a valid concern. The simple fact is, when a function is outsourced, IT transfers responsibility for day-to-day operation to the supplier. IT has indeed given up the ability to direct the work at a detailed level. Instead, it relies on the supplier to provide that daily management, and to ensure that service level agreements are met. If an IT manager is not comfortable with relinquishing task-level control, or if the corporate culture does not support such a change, outsourcing should not be considered.

The second concern is reduced flexibility. Because outsourcing is normally a long-term engagement, bound by contractual terms, it is not designed for day-to-day changes in the scope of work. Instead, it is predicated on the fact that a finite scope of work has been transferred to the service provider, and that the vendor will be held accountable for clearly defined service levels. Although good outsourcing contracts provide for periodic adjustment of service level agreements, they do not

lend themselves to frequent changes. If the workload is volatile, outsourcing may be an inappropriate solution.

USE OF STAFF AUGMENTATION AND OUTSOURCING FOR SPECIFIC FUNCTIONS

Although virtually any IT function could benefit from either staff augmentation or outsourcing under specific circumstances, certain functions are more obvious choices for one type of service provider than the other.

Data Center Operations

If asked to define classic IT outsourcing, many managers would respond with “data center operations.” This has traditionally been the first function that most IT organizations consider outsourcing, and it is in many respects ideally suited to outsourcing, because the work is typically not a core competency and the skill is a commodity. It is also one with documented successes and proven cost savings, both of which encourage other companies to consider it.

The reasons why data center outsourcing is often successful at reducing costs include:

- *Tasks are clearly defined and repetitive.* In most cases, the company has well-established procedures for the operation. This simplifies the outsourcer’s transition time and reduces the impact on end customers.
- *The workload is not volatile and changes in the nature of the work are infrequent.* This consistency makes negotiating a contract simpler because there is less need to provide for exceptions. Costs can be clearly identified. A steady-state workload also provides the outsourcer with the incentive to invest in long-term cost-saving changes, a portion of which can be passed through to the company.
- *The work is not company specific and requires no special knowledge of the company’s business.* The generic nature of the function means that there are many potential suppliers, and the company can contract with the lowest-cost provider.
- *Existing costs are normally well-documented.* Because many companies have formal chargeback systems for data center costs, potential savings from using a service provider are readily determined.

The primary concerns associated with data center outsourcing are:

- *The company may lose control of decisions,* such as a change from one mid-range computer supplier to another, or an upgrade to a new version of the operating system, which would have an impact on its staff. A carefully worded contract can reduce this risk by reserving the right to these decisions to the company, or requiring its concurrence before a change can be made.

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- *Flexibility of shifting from one platform to another may be reduced by a long-term contract.* If a company anticipates a major change in its computing strategy, such as moving from mainframe systems to client/server or Web-based applications, it may not want to outsource data center operations until the change is in place.

While staff augmentation can alleviate temporary shortages of operations staff, it is not used as often as outsourcing because it does not provide the cost savings most IT managers seek from the use of a data center service provider.

Telecommunications Services

The support of a company's wide area data and voice networks is similar to data center operations in that procedures and costs are often clearly defined, the work is a commodity, and there several vendors that can provide the service. This is a second function where outsourcing can be used to reduce costs.

Local Area Network and Desktop Computing Support

Installation and support of LANs and PCs is a function where both staff augmentation and outsourcing can be used successfully, depending on a company's maturity level and objectives. If the IT department has little in-house expertise and wants to develop it, staff augmentation is an effective way to bring in experts who will train existing staff. Similarly, if IT has not developed formal procedures or standardized its methods, it may want to hire a contractor with specialized skills to develop those procedures. Even if the long-term plan is to outsource the function, it is desirable to establish procedures prior to outsourcing. In general, a company whose function is not yet mature should consider staff augmentation rather than outsourcing. Similarly, to increase the odds of successful outsourcing, IT should seek to first stabilize and standardize its function, and then outsource.

For some companies, outsourcing of LAN and PC support has been a less than successful venture. The reasons for the disappointment include:

- *Immature processes or lack of standardization.* As noted above, outsourcing contracts are managed by service level agreements (SLAs). If there are no existing SLAs, it is difficult to specify with any precision the work that the outsourcer will be required to perform. This means that measuring success will become subjective, increasing the possibility for dissension between the company and its service provider. In addition, if the processes are not clearly defined, the service provider may have difficulty pricing the engagement.

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- *Incomplete due diligence.* This is a corollary to immature processes. If the vendor does not completely analyze the company's existing function, it may make inaccurate assumptions about the required staffing level or the current customer satisfaction. This can lead to faulty pricing and another opportunity for disputes. Incomplete due diligence occurs most often when the company seeks to compress the time to develop a contract, and when suppliers overestimate their knowledge of the company's function.
 - *Unrealistic expectations.* A company may outsource a function, hoping that the service provider will resolve all outstanding problems, improve customer satisfaction, and reduce costs. While all of these are possible, it is unlikely that all of them can be achieved in the short term. A more realistic approach, particularly when processes are immature, would be to hire a vendor to implement formal procedures and stabilize the environment as phase one. Phase two, under a separate contract, could include cost reductions and improved customer satisfaction as its goals. Although the same vendor could be used for both phases, this is not mandatory. Some outsourcing firms that would be well-suited for phase two may not have the expertise needed for phase one.
 - *Loss-leader pricing.* Occasionally, a service provider will price an engagement at or below cost as a way of getting the business. From the supplier's view, the loss-leader approach is justified by the anticipation of being awarded additional business in the future. Although loss-leaders occur in both staff augmentation and outsourcing engagements, the long-term nature of outsourcing contracts makes them particularly dangerous. Unless the additional work is guaranteed, it is possible that the vendor's expected profit margins will not be met. This typically results in the vendor reducing staffing levels or substituting less experienced staff to generate a profit. Customer satisfaction rarely rises after such actions.

The concerns associated with outsourcing of LAN and PC support include those shown for data center operations. In addition, pricing may not be accurate if the processes are immature. To improve the likelihood of success, full outsourcing of LAN and PC support should be initiated only after formal procedures have been developed and implemented. Staff augmentation can provide an effective method of developing and implementing such procedures.

Legacy Application Support

With the move to large integrated software suites, some companies have chosen to outsource support of their legacy applications. Like data center operations, the rationale includes the fact that support of these "sunset systems" is not a core competency.

A company might choose to outsource legacy systems if any of the following are true:

1. *It wants its internal IT staff to focus on other work*, such as the implementation of a new packaged system or the development of Web-enabled applications. Most IT managers will attest to the fact that it is difficult for staff to meet project deadlines when they are also responsible for maintaining production systems, because production problems are a higher priority than new work. Although it is possible to minimize permanent staff involvement by using staff augmentation, concerns about co-employment and the desire to eliminate the day-to-day management of these employees makes outsourcing a more appropriate choice.
2. *The company wants to ensure that the old systems are shut down when the new ones are installed.* Many companies have a poor history of retiring old systems, even after the new ones have been in operation for several months. To achieve the cost savings projected for the new system, it is often vital that duplicate systems be eliminated. When a company pays an outside company to support the systems, costs are more visible and easier to eliminate.
3. *It fears the flight of key employees* who are supporting the legacy systems. In a tight job market, employees who fear that their jobs may be eliminated when a system is retired, or who prefer system development to maintenance, will leave. By transferring responsibility to a service provider with expertise in system support and a large staff, the company has reduced its risk.

The primary concerns associated with outsourcing of legacy systems are:

1. *The vendor may not have staff with the needed technical expertise.* This is particularly true for very old systems, which may have been written in arcane languages on now obsolete equipment.
2. *The learning curve for the vendor's staff may be steep*, because many legacy systems were either developed in-house or are highly customized versions of packaged software. In these cases, the vendor would have to train staff, rather than having people with the needed expertise ready to deploy on the engagement.
3. *Costs may be higher than the current internal costs.* This is often true in short engagements, or when the company has been operating with a lean staff. Outsourcers typically achieve rapid cost savings on commodity functions, which legacy systems are not. Otherwise, they depend on engagements of three to five years for cost efficiencies.

Packaged System Implementation

Some companies have chosen to outsource the implementation of packaged software, frequently to the vendor who developed the software, or

to a niche service provider that specializes in the system. Unfortunately, however, the approach can be a dangerous one, and should be undertaken only after a careful consideration of the risks.

The reasons a company would outsource packaged software installation include:

- The vendor is the expert.
- Because the vendor is the expert, it can implement its software cheaper than IT can.
- The vendor's implementation will be faster than IT's.

While these circumstances can be true, they do not address the primary concerns:

- If no internal staff is involved, there is no knowledge transfer, and the company will be dependent on the vendor for ongoing support. Even if the vendor's support is cost-effective, the absence of internal expertise makes a future "divorce" more difficult.
- Without internal involvement, the vendor may install a "vanilla" version of the software that fails to meet the customers' unique needs. Business knowledge is key to successful system implementation; and, while the vendor may have industry expertise, internal staff know the idiosyncrasies of their company and its customers best.

To minimize long-term risks, IT should consider using staff augmentation for system implementation. The company can hire the vendor's experts on a time and materials basis, requiring them to work with internal staff to transfer knowledge. Alternatively, it can contract for specific portions of the work to be done by the vendor at a fixed price. Such a fixed-price contract can be considered a form of outsourcing. In this case, it is important that at least one member of the internal staff be involved in the project. If that is not possible, perhaps because work is being done offshore, a formal transition should take place once the work is completed.

New System Development

System development is similar to packaged system implementation in that a company increases its risks by outsourcing the entire project, even if it plans to have the vendor provide ongoing support of the system. To ensure that the company retains internal knowledge of the system, it may want to use a combination of staff augmentation and selective outsourcing as outlined above for packaged system implementation. In this scenario, IT would typically retain responsibility for all strategic decisions. Working with its customers, it would define the requirements of the new system. It might outsource portions of the development, including the

writing of detailed specifications, coding, and unit testing, while retaining overall project schedule responsibility.

CONCLUSION

Staff augmentation and outsourcing are valuable tools for the IT manager. Although the services provided may seem similar, there are fundamental differences between them, and they are most effective when used on specific functions. While outsourcing can reduce costs and free internal staff to work on higher-priority projects, it should be used only when work is clearly defined and when the company is willing to relinquish day-to-day control. For other projects, staff augmentation is a less risky although often more costly approach.

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