Travant Solutions, Inc.

Hiring & Managing an IT Professional Services Firm

Revision Date: 07/08/2009

847.680.4700
info@travant.com
www.travant.com

Table of Contents

Introduction

Competing in today's rapidly-changing market requires that your IT systems be able to adapt to the changing needs of your market, your customers, and specific needs for your organization. Keeping large enough IT departments to meet these needs often is not an option given their cost. Therefore many organizations turn to IT consulting firms to help meet these needs. Choosing the right firm for these services is critical to success in this area.

It is often difficult for the seasoned IT buyer to select an appropriate firm to implement their company's vision, let alone for someone who has not purchased IT services before. There are firms of all shapes and sizes that provide services of all colors. All of them are confident when they tell you exactly what you need to do, but sometimes you know they don't fully understand your situation – and sometimes they all tell you different things!

The selection process can be intimidating and very stressful when the technical direction of a company, many times the foundation of the company's operations, depends on selecting a vendor that can get the job done right, on time, and on budget.

This white paper is intended to give the reader insight on how to select a firm that will meet their needs by describing and comparing methods of selecting and managing IT services firms. By understanding not only what to ask of potential vendors, but why to ask them, and by also determining the best fit for managing the firm, the client will make a more informed decision.

The authors are attempting to be as objective as possible using their knowledge and experience in both hiring and selling IT professional services. This white paper is not a detailed road map as every business is different and every project is different. Instead this is intended to be a high-level overview of the selection and management process.

Target Audience

This white paper assumes the reader is familiar with IT services but not necessarily with purchasing these services. Though targeted to the uninitiated IT buyer, anyone who plays a role in determining needs, evaluating projects, and selecting vendors will benefit from reading this white paper.

Hiring a Firm

When to Hire a Firm

For companies without an IT department or only a small group of IT talent this can be an easy decision. For companies that have substantial IT staff, this can be more difficult. The type of services needed could be a key factor in deciding if a project needs to be outsourced or executed internally, but other factors should also be considered. Advice from experts can assist an organization with strategic decisions at many levels. Sometimes it is wise to seek advice to determine the feasibility and suitability of a project before starting it.

Hiring professional services is the right course of action when an organization seeks to attain a goal that requires expertise in an area beyond the organization's industry and area of focus. It is in these circumstances where making the correct hiring choice can provide invaluable assistance, resulting in successful projects and substantial cost savings.

Augment an in-house team.

In the majority of situations, the initial effort of building, selecting, and/or implementing requires more resources than the maintenance effort. By outsourcing a project, companies incur a higher short-term cost, but often lower the long-term cost by not maintaining a larger-than-needed staff (or going through the pain of letting valuable people go).

Specific Knowledge Required

Many times companies have a very capable IT department with good technical knowledge of their systems and good knowledge of their business. However, this knowledge is often not broad enough to effectively evaluate new technologies or general business packages that a company may want to purchase or implement (CRM, ERP, etc.). There is often not sufficient time for the staff to acquire such knowledge, as significant efforts are required for ongoing daily tasks.

Independent Contractors vs. Firm

Depending on the goals of the project it may be feasible to hire either a firm or independent contractors. There are advantages and disadvantages to both. In the comparisons below, it is not the number of advantages/disadvantages that are important. Instead, it is what the advantages/disadvantages mean to the project. They need to be compared to the goals of the project and of the company to appropriately evaluate which are important and which are irrelevant.

Independent Contractors

<u>Advantages</u>

- On a per resource basis, ICs are often cheaper than resources provided by a firm. This is due to the IC having less overhead than the firm.
- Because ICs are working for themselves, they are often "hungrier". This sometimes translates into higher productivity and a willingness to do what it takes to get the job done.
- An IC with substantial tenure in their business is likely to be competent, as this

would be a requirement to maintain longevity.

- Good for staff augmentation.
- Good for very small project.

Disadvantages

- It can be difficult to staff a project when using ICs. Most likely they have not worked together. They most likely do not use the same methodology (if they use one at all).
- Depending on the duration of the project, some ICs may not be able to commit fully as they must spend time doing their own business development. Though many ICs will make up for lost time during normal business hours (when they are meeting with their prospects) by working off-hours (evenings, weekends, etc.)
- It can be difficult for ICs to be available for support as they are most likely working full-time on their next engagement (or even potentially have taken an employment position). Many ICs will not provide a warranty for their work for this very reason.
- ICs rarely have a support staff or a network that they can consult when they encounter a difficult problem or situation they have not yet experienced.
- ICs often have to work on-site where the client provides workspace due to limited access to the appropriate technology (software, servers, etc.). This may increase the cost of the ICs in subtle ways
- Since an IC works alone, if another resource turns out to be needed on a project, it could be difficult to quickly get that resource

Firm

Advantages

- Most firms can bring appropriate skills to projects from either their full-time staff or by sub-contracting the appropriate skills.
- The staff on most has experience with methodology.
- Many of the staff have most likely worked together previously .
- Staff members can consult with other expertise in firm to help solve problems.
- Many firms maintain the ability to work offsite.
- Most firms have access to the appropriate technology for the project (development servers, source control, RDMSs, etc.).
- Many firms have a broader range of skills and experience as an aggregate.
- Firms (beyond the startup stage) are established and likely to be around for a while when support or expansion needs arise.

Disadvantages

- Firms in general can be more expensive as they have more overhead (full-time staff, technical environments, training, etc.).
- Key staff may be shared among clients.
- Firms with full-time staff sometimes have incentive to place resources who do not have the exact skills needed because of resource utilization issues.

Small Firm vs. Large Firm

If a decision is made to go with an established firm, the next decision point is what type of firm. In the comparisons below, it is not the number of advantages/disadvantages that are important. Instead, it is what the advantages/disadvantages mean to the project. They need to be compared to the goals of the project and of the company to appropriately evaluate which are important and which are irrelevant.

Small Firm

Advantages

- Smaller firms are often cheaper than a larger firm as they have less overhead (administrative staff, etc.).
- Smaller firms, like many ICs, are often hungrier than larger firms. This sometimes translates into higher productivity and a willingness to do what it takes to get the job done.
- A smaller firm with substantial tenure in their business is likely to be competent, as this would be a requirement to maintain longevity. This is not always the case with larger firms, which have a better capability to absorb failure.
- Generally, smaller firms have a more personalized relationship. It is common for clients to be interacting with the firm's owners or major stakeholders.
- Smaller firms are usually willing to work with smaller clients and/or smaller projects.
- Small firms are typically much more likely to utilize ICs as needed than larger firms. This can be a very good situation because it can provide very strong resources in a much more flexible structure than that of hiring ICs directly.

Disadvantages

- Smaller firms, by definition, may not have range of skills or experience as a larger firm.
- Smaller firms may not have capability for large-scale projects in terms of resource capacity.
- Smaller firms may not have access to specific technologies / packages in terms of niche type of technologies or more expensive packages (CRM, ERP, etc.).
- If a larger client comes along, smaller firms might need to pull from their limited number of resources in their organization in order to staff the new client's project(s) with the best talent. This could entail a valuable resource on an active project being replaced because that person is the right resource for the new client.

Large Firm

Advantages

- Larger firms often have broad ranges of skills and experience. They are more apt to have specialized knowledge and experience.
- Larger firms often have access to a broad range of technologies / packages.
- Most larger firms can handle large-scale projects in terms of resource capacity and project management support.

Disadvantages

- Larger firms are usually the most expensive option.
- Many larger firms perceive smaller projects / clients as "not worth the effort".
- It is unusual for clients to interact with the top-level executives at larger firms.
- Large firms are not as likely to consult outside help (such as ICs) when needed because they utilize internal talent first.

Methodology

When considering a firm for any significant project work, it is important to determine if the firm has a methodology and consistently uses it. Without an effective methodology, it is difficult for a firm to enforce consistent best practices, reuse techniques that proved successful in previous projects, and prevent repeating mistakes made in previous projects.

Robustness

Does the methodology cover the typical project life-cycle from the initial analysis, through design, development, implementation, through support?

Documentation

Many firms claim to have methodology, and many that do make the claim actually have something. A key consideration is how the methodology is documented. Is it documented in a user-friendly, flexible manner? Or, as is the case with many services firms, does the methodology gather dust on the shelf because it is too cumbersome to use and actually inhibits efficiency?

Examples of Methodology Deliverables

Ask for examples of deliverables (sanitized of all proprietary information, of course) used in previous engagements that are described in the methodology. Ask for something more substantial than a project status report. This should provide insight into how well the firm implements their methodology.

Methodology Walk-through

Ask for the firm to walk through how they would apply their methodology to your project. The methodology should be flexible enough so that steps that are relevant to the given project are skipped. Only those steps that provide value should be executed. Beware of those methodologies where each and every step must be executed for each

project to "ensure all aspects are analyzed".

Proven Track Record

Another key consideration is the firm's track record. How much success have they had in the past? Have they had projects in the client's industry? Have they had projects with similar technologies or software packages? Have they had projects with a similar size?

A firm should not necessarily be disqualified if the answer to any of the above questions is no. It depends on how relevant that aspect of their track record is to the proposed project.

References

One way to ascertain a firm's track record is to ask for references. Like most everyone else, a firm usually only provides references that will speak favorably about them. However, the reference is still useful because it can be used to discover how the firm works.

The biggest threat to project success is typically communication. Ask the reference about how well the firm communicated with the reference. Did the reference always feel they knew the state of the project? How quickly was the reference notified of any overages (in time or cost)? Does the reference feel the firm has a good change control process?

A firm should not be disqualified because a previous project had a few problems. Sometimes these result from factors beyond the firm's control. What's important is how the firm dealt with the situation, how the methodology repaired problems and mitigated further risks, and whether the client was fully satisfied with the process. Most projects of significant size have some issues arise. The reference should be willing to share some aspects of this. Try to ascertain how close the firm came to their original estimates (in time and cost). Also, ask for statistics regarding how many defects were found after the project was completed, and ask about the firm's responsiveness.

Project Cost

While there are several creative ways to manage the cost of a project, the two most common are Time & Materials vs. Fixed Bid. Which method to choose depends on several factors, not the least of which are the complexity of the project, the comfort level of the client in helping to manage the project, and how well understood the business processes.

Time and Materials

Time & Materials means the client will be charged at a specific rate (hourly or daily) per resource and for any other expenses associated with the project. As part of the proposal, a firm will typically provide a breakdown of the number of resources required for the project, the estimated hours for each, and their hourly rate. This comprises the cost estimate. Most firms prefer this method as they are required to create a proposal before they know enough detail to create a good estimate. In some cases the effort involved for such analysis is cost prohibitive (if the firm is not being paid to create the estimate).

Advantages

- Good for projects that may not have a well-defined scope.
- Flexible in nature. As requirements change, the effort can be adapted accordingly (with appropriate change control).
- Likely to be a fairer and more accurate price. A fixed cost determined prior to

beginning a project is likely to be buffered higher to allow for contingency.

Disadvantages

- Cost estimate is based on effort estimate known at the time of the proposal. Subsequent analysis and effort may result in a change to the estimate.
- Requires careful management from both client and firm to minimize overruns.

Fixed Bid

Fixed Bid means the client will be charged a flat fee to complete the project. Though on the surface this may seem ideal, most firms compute the fixed bid by first going through the process of creating a Time and Materials estimate, and then adding an amount to this estimate that hopefully covers the unknown portions of the project.

Advantages

- Potentially easier to predict the cost.
- Good for repeatable types of project (implementing a standard package, basic website, etc.) where level of effort is easy to estimate.

Disadvantages

- To make estimates, the scope must be very well defined.
- Change control process becomes more difficult (i.e. the project may be less flexible).
- Often more expensive due to built-in "contingency".
- Not good for specialized development as estimates are based on experience with similar types of projects.

Time Box

A third alternative to the estimating and controlling project cost is the Time Box approach. Essentially this is an agreement for the firm to work for a specific period of time, for a fixed cost, with the mandate to complete as much work as possible. There are no defined deliverables. In a sense it is a blend of the Time & Materials and Fixed Bid approaches.

This approach is sometimes applied to a design phase where the proposed system is complex and is difficult to estimate. In this case, the design will be a series of time-boxes. After each time box the firm and client evaluate what has been done, what remains to be done, and determines if enough is known to create an accurate estimate of the remaining effort or if another time box is warranted. The scope of the system becomes controlled by the available budget, and the client has frequent opportunities to put off functionality until future availability of funds.

This approach is not typically used for development efforts. Once a detailed design has been created, it should be easy to create an accurate estimate of the effort required to build or implement the software. What needs to be done and how it will be achieved is now established and documented (all deliverables of the design effort); therefore, it is much easier to estimate how long it will take. Either a Time & Materials approach or a Fixed Bid approach may be chosen for subsequent phases of the project.

Advantages

- Allows project work (analysis, design) to begin when the level of effort required is not yet known.
- Can help to control cost as each time box has a fixed price.
- Results typically are used to create estimates for subsequent project phases.

Disadvantages

- There are no fixed deliverables; therefore, there is nothing on which to base a guarantee.
- Requires detailed management to ensure the firm is working on the appropriate tasks in a timely manner.

Managing a Firm

How a firm is going to be managed should be taken into consideration during the selection process. Different companies manage their vendors differently depending on their experience, goals, and ultimately, comfort level. Below are some key areas of consideration when determining how best to manage an IT Professional Services firm.

Well Defined Scope

One of the most important factors to a project's success is having a well defined scope which translates into requirements. In other words, the more that is known about the desired behavior of the software, the more likely it is the firm can produce the desired results. Whether the focus is the implementation of packaged software, or the design of custom software, the following categories of requirements need to be considered:

- Business Requirements
- Technical Requirements
- Third-Party Interface Requirements
- Usage requirements (Service Level)
- Scalability requirements
- Maintenance Requirements (archive & purge, extend ability)

Project Management

Project management is critical to the success of any project. There is often confusion about what constitutes effective project management, and sometimes the wrong aspects are emphasized. There are administrative portions of project management activities, and these are important; however, it is more important to understand the factors a firm uses in constructing a plan and work breakdown structure. It is also important to understand how they manage their resources and respond to issues and concerns. Good project management is an art as much as it is about following good procedures. Listed below are items that fall directly under project management. These items need to be analyzed on an ongoing basis and communicated periodically to the client (usually weekly).

Work plan

Does the work plan make sense? Is it leveled and allocated to resources that you are confident will be available (including client resources). Is it limited to 40 hours per week for each resource (or even less if it is know that the individual is not available fulltime)? Does the schedule account for vacations, holidays? Are other contingencies accounted for? Not everything can be predicted, but those items that can should be taken into account wherever possible.

Status

This should include a comparison of the actual cost (in time and money) against the estimates. Also included should be updated timelines.

Issue Resolution

All projects have issues. An issues/defect list should be maintained with each item pri-

oritized and assigned to a team member for resolutions (and potentially a business team member). A summary of the issues should be presented to the client, including those issues that require client feedback in order to resolve. Severe issues should be reviewed with the client in order to ensure the determined resolution is satisfactory to all involved.

Change Control

This is a critical process because all projects have changes, be they items that were overlooked or new requirements due to shifting business initiatives. Changes need to be identified (as opposed to defects in the design or code) and evaluated to determine their impact on the project in terms of time and cost. Changes should only be implemented once the client has approved them.

Design vs. Development

Most software development methodologies have a Design and Development cycle (a notable exception is eXtreme Programming). While the bulk of design is usually done prior to development, design always continues into the development phase. In actuality, these are iterative processes. A good work plan should accommodate this. Some other attributes of these phases are:

Design

- Iterative cycle of interviewing business experts to determine requirements and documenting the technical approach to implementing them (the "What" and "How").
- This is where the problems are solved. Approaches are determined. Any complex logic should be written in design.
- Base architecture should be determined including shared functionality (i.e. define the API).
- The most accurate estimates for development are created when design is nearly complete because this is when the most in known about what actually needs to be done.
- Design should be done that any other firm (including in-house) could development from it.

Development

- Implementation of Design (doing the "What", according to "How" it was designed).
- Unit Testing
- Iterative with Design (design is never complete)

Quality Assurance

Quality Assurance is a broader topic than just testing software, as it is most often interpreted. QA is a large part of any methodology. Most work plans do not have enough resources allocated to QA, and when other aspects of the project exceed estimates, often the time allocated to the QA tasks are reduced to accommodate them. This is usually the biggest mistake made in project management.

Though exhaustive testing is usually prohibitive in terms of both time and money, benchmarks must be set prior to beginning the project of what is acceptable quality.

Generally these are thresholds of how many bugs of a given severity are acceptable.

Support

Support is also a broad topic that should be clarified prior to beginning any project. Most IT Professional Services firms provide a warranty on their work. However, what qualifies for warranty work must be agreed upon. The client must remember that may not have a presence with the client after the project is implemented. Furthermore, key resources from the project could be allocated to other clients. Therefore, it is important to come to agreement upon methods and activities for transfer of knowledge, and how responsive the firm needs to be for a support/warranty issue.

Conclusion

Though selecting an IT Professional Services firm is often a process filled with trepidation, doubt, and confusion, by knowing how to one intends to manage the firm and what criteria makes the most sense to evaluate the firm, the client can often choose a firm that gives the project the highest chance of success.

For more information contact Travant Solutions at info@travant.com, www.travant.com, or 847.680.4700.

About the Authors

Travant Solutions is a premier provider of IT services that develops and implements software to increase market penetration, enhance customer loyalty, improve internal processes, and reduce costs. The founders have over thirty years of combined experience buying and selling IT services and have found that it is easiest to sell to the educated buyer.