Today, windows of market opportunity are more like keyholes. Internet access together with distributed software development methods have opened up a literal world of opportunities. However, this huge playing field also brings big competitive threats. Global competition and the ability to utilize global development resources allow companies to draw from and deliver software faster than ever before.

Users are different, too. They know how to search and evaluate software before they buy it so they can be sure to find the perfect solution suited to their specific requirements. Plus, users and prospects aren't quiet when they find a product or company that doesn't serve them well.

Loyalty is something left to the dogs since today's satisfied users require frequent enhancements, fixes, and news about their cloud-based, SaaS-delivered bytes offered on demand.

As a software provider – either for in-house use or commercial sale – you are undoubtedly stressed. You need high quality developers who can quickly augment your existing development team and processes. However, you can't spend a fortune and you have little time to babysit anyone.

Perhaps you considered outsourcing - but you probably also have heard many horror stories in the media and from colleagues. You may even believe that outsourcing is impossible to manage, expensive to correct, and overall leads to low quality software for your company with a high level of aggravation for you.

We actually agree. Typical outsourcing is not usually the answer as it's proven to fail often, leaving lasting scars in companies and personal careers. In many cases, people were enticed by the low hourly rate and assumed that because there is a common coding language between outsourcer and client, this will then automatically translate into an architectural and functional project directive. We all learned in hindsight that this is not true.

Some outsourcers still try to convince the market that a time zone difference is actually advantageous ("Go to sleep and your code will be ready when you rise".) However, it turns out that the physical distance isn't the problem – it's the distance between communicating and understanding that causes so much outsourcing failure. This is directly related to the lack of cultural connection that is further exasperated by the time difference and lack of production system experience within most offshore companies.
Thus, after more than 10 years providing successful outsourcing solutions, we at AMC Bridge decided to share our experiences.

In this paper, we will discuss the top 5 tips we have used to ensure that outsourcing works properly to get our clients outstanding results. We have found that it is the best, and perhaps only, recipe that allows us to build quality software quickly and with the utmost client satisfaction. We strive to work smarter, so that both we and our clients can all stay sane without losing our minds or our profit!

"The physical distance isn't the problem – it's the distance between communicating and understanding that causes so much outsourcing failure"

1. Great software starts with great architecture – preferably done and controlled in-house

It is relatively easy to demonstrate a prototype that looks sexy and has some of the desired application functionality. It's an entirely different task to develop a pilot project that also has baked in scalability, performance and availability. When the system is built out and has dozens or perhaps hundreds or thousands of concurrent users, you want to know that the system will handle it. The only way to guarantee this is to architect that from start. Further, as new technologies arrive or new enhancements require integration with other systems and processes, interoperability must be considered from the start, otherwise it can be a costly afterthought. A solid architecture considers these requirements prior to coding and is the best method to ensure future adaptability.

However, software architectural talent is rarely found at outsourcing companies. Why? Because these people are typically expensive employees that get apprenticed by working on projects that are long-term and high risk. Software development veterans who have been involved with and accountable for high availability, transactional systems are usually coveted human resources that earn high salaries so that their expertise and attention remains at the paying employer.

Plus, these superstar technical gurus aren't usually satisfied by working behind the scenes at an outsourcing shop augmenting the talent in a client company.

Therefore, it's difficult to find architectural experts in outsourcing organizations. In fact, it's even smarter if you can provide architectural guidance from inside your organization so you make the important decisions and thereafter have the control to ensure your decisions are well implemented. If you require your development partner to provide it, make sure they have done this before and talk to their references to ensure the outsourcer can do it well.

2. Software development requires a customized but disciplined process

In many scenarios, the client company loosely specifies what it wants the outsourcer to build. The outsourcer builds what it thinks is needed and hands it back to the client for approval. When the client realizes its way off the mark from what was intended, the cost of repair is often beyond the original cost of development. Everyone is frustrated and both time and money have been lost.

More science than art, software development requires discipline. Individual parts must work on their own but also in concert with the other parts of the system. Using a disciplined development process is even more urgent when you have multiple people in multiple countries writing code.

Whether your organization uses a waterfall development methodology or a more iterative method such as Agile, try to bring the outsourcing partner in to the fold. In our experience, the more outside resources are integrated into the development process, the more predictable results of the process will be.

The development process may need to be simplified or otherwise adjusted. For example, you may need to move the time of a standard status meeting to accommodate the time difference with your partner. Or you may need to simplify the work flow so that the remote group can more easily participate and contribute. You don't need to invent anything new such as regular status meetings, progress and submission reports, tractable schedules and millstones. Just ensure that everyone follows the process vigorously and proactively.

3. Rapid, quality development requires iterative pilots, not prototypes

Prototypes are helpful because they validate with a client the desired functionality and user interface design using a snapshot of the user experience. Unfortunately, for mission critical applications, prototypes are often more show than substance. The outsourcer may then fail when they try to build the production application. Because the client has been baited to believe the outsourcer can deliver production code that works like the demo, it's quite disappointing when they can't deliver the actual system within the parameters of time and money originally agreed.

Iterative pilots are better than prototypes because they segment out critical parts of the application to ensure each piece is functionally perfect beyond user interface features. Good pilots break out meaningful parts of the application and ensure the code on its own is ready for actual use. While the entire application may not be present then, that one piece can be tested in a real-life scenario to ensure it is scalable and reliable per the requirements. It provides a milestone that shows the client real progress towards the completed system, not just a facade of what it could be like.

Iterative pilots give the client the ability to see and experience actual progress and ensure that each step is solid. Clients gain confidence to approve the pilot and release the outsourcer to tackle the next milestone, building onto the success they just achieved. Issues can be addressed quickly and with less cost. Surprises don't occur as client and outsourcer are taking smaller, meaningful steps to ensure success at every point.

4. Look beyond the client list

It's easy to put a client logo on your website and declare it a showcase account. A more impressive reference is one that has used the same outsourcer for multiple projects over time – and projects that have similar requirements as the one you are looking to build.

When outsourcing companies show off their client bases, it's perhaps good to know more what they built than whom they worked for. Knowing what kind of application was built is more telling of the work done for each client. Second, the number of projects done for a single client also demonstrates the success and trust of an outsourcing company.

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Software can only model what a developer understands. If the developer has no experience working with high volume databases or legacy systems, he/she can't fake that in the software."*

It's relatively easy to find outsourcing companies that developed a simple web-app that has no back-end database or simple database functionality to add and retrieve data. However, it's much harder to find an outsourcing company with deep experience in complex applications – those that require integration with other systems, high transactional requirements or complex calculations. While many outsourcers will tell you "It's just a matter of software programming", in truth, it's not. Software can only model what a developer understands in terms of the business and user experience. For example, if the developer has no experience working with legacy systems or isn't familiar with the compliance requirements associated with American financial services products, he/she can't fake that in the software.

What matters in most cases is the outsourcer's experience and investment. The outsourcer must have experience in developing similar types of software and they must invest their own time and money to understand the client's business and software requirements, even if the client doesn't know. This may mean asking critical questions before the software is developed to the client and/or their target market.

"Thus, the quantity of clients isn't a good success metric for outsourcers. Depth of work and longevity with a client over multiple projects is more revealing. "

It often means spending time with the client in person to ensure a clear understanding of the software requirements but also of the client's business culture, processes and people. It also requires limiting the number of projects a single outsourcer person or team will take on at a given time to ensure they can appropriately focus on each client.

Thus, the quantity of clients isn't a good success metric for outsourcers. Depth of work and longevity with a client over multiple projects is more revealing. Look to outsourcing partners that have solid references and examples of work that are similar to your project in size, scope and process.

5. Solid communication is only partially done electronically

Email, code libraries, Skype – these are all inexpensive and effective means to share 'stuff' but perhaps they don't tell the whole development story. Scheduled scrums and code submissions, unit and system testing, even pilots and client sign-offs all help to assign accountability and help manage the various moving development parts. However, what is often missing is a simple meeting of minds that can only come from in-person, fluid, and fluent communication between people.

In the absence of time, it's actually more important to ensure there is a means to expressing satisfaction or dissatisfaction, sharing and honing new ideas, and sometimes to be prompted to generate all the above. That's where human contact helps.

Today, we all rely on our electronic means to communicate despite knowing how unreliable it can be to transmit accurate information. Whether you are introverted or extroverted, we all need more than typed feedback to know we are on track. We sometimes need someone to push us forward or tell us to go back and correct things. Perhaps we even need someone to take more control and to provide us with more direction – but these needs usually surface only upon conversation, not through any automated bug tracking or project management system.

Being able to call your outsourcing partner any time, not in the keyhole of time when you are both at work, is truly helpful. It's a further comfort being able to talk in English and really understand one another given cultural subtleties and euphemisms.

When you both can talk the same language AND understand each other's communication needs, then your outsourcing partner has a much better chance of building the desired application in the context of your project, personal, and business requirements. In the perfect scenario, meeting in person with your outsourcing partner or at least the assigned account representative can make a huge difference in overall communications and the ongoing relationship. A good sign is when an outsource partner builds planned client interaction into the project timeline and even into the project cost to ensure that the head developer and/or the technical account manager can meet in person with the client at regular intervals. It's worthwhile to spend this time up front and meet in the beginning of the project. You might even find it an invaluable investment to have the lead developer onsite with your operation (even if there aren't any other development people there) so the outsourcing company representative can truly understand not only the project but equally your culture and processes. Few outsourcing companies do this but in our experience, it makes a tremendous difference in a project's short and long term success.

6. Summary: Smart and sane, a better way to outsource

To obtain the benefits of cost savings and flexibility that outsourcing promises, we presented some important lessons we have learned over time working with clients on a variety of projects. Conclusively, you can't expect your outsourcing partner to read your mind or figure it out strictly via electronic communications. Be sure to give them architectural guidelines or insist they provide it to you before they start a single line of code. Select a partner with the experience and willingness to work iteratively and as needed, in person, so they intimately participate in your existing processes. Perhaps even more important than a competitive hourly rate, find a partner that will invest their own time and money into getting to know your business, your people, and your software requirements and build a solid long term relationship so they can do their best to provide you the desired solution quickly and with quality. And finally, find an outsourcing partner that you can communicate with well, to create mutual trust and success.