

Offshore Outsourcing

The Benefits

Planning for Offshore Outsourcing

A Quick Guide to Provider Selection

Applications Consulting
Quality
Processes
CMMI
India ISO
Bangalore
Java C# C++
\$ € £
ASP.NET
Tech Support Rs



Agility At Work

Siri



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Introduction

Offshore Outsourcing Today

Outsourcing

The concept of outsourcing is as old as humanity itself. From building houses to using public transportation, we have always relied on “service providers” for various tasks. In the information technology (IT) context too, outsourcing is as old as the industry itself. For decades, various IT service providers across the US and Europe have been providing consulting and application development, testing and maintenance services to IT end users such as banks, insurance companies, airlines, pharmaceuticals and more. Many software vendors too have utilized outsourcing services during initial development of products that require a number of engineers for a short duration.

Offshoring

With the advent of affordable, high-speed communications, the nature of software development work enabled its execution at remote locations, allowing companies to tap the best resources in various regions. In time, this concept extended to locations thousands of miles away in India, China and other countries that had a strong engineering education system. Thus, offshoring was born, and flourished in the 1990s during the initial stages of the Internet.

As the significant cost differentials of doing this became evident, there was a strong movement towards standardizing the Quality of Service levels from these distant companies. While the ISO¹ (implemented in various European businesses) and the Six Sigma² (the Japanese manufacturing industry) were taken from other industries, the

SEI CMM³ model was specifically developed for the software industry to help the US Armed Forces evaluate the work of their software vendors. These systems fine-tuned to support the offshore business model, to a point where, today, outsourcing to a company in India is as easy and reliable as outsourcing to the service provider in the outsourcer's same block!

This Paper

This paper is intended for those looking at offshore outsourcing as an alternative to in-house or near-shore development. Here, the various benefits of working with an offshore provider are listed to help the reader, if required, justify a move towards offshore outsourcing. Following that is a section on planning for offshore outsourcing, with various tips and best practices. The last section is an exhaustive set of questions to help evaluate potential offshore providers. All

information is derived from our own decade of experience in providing offshore services to numerous companies in the US and Europe.

About Us

Siri Technologies is a SEI CMM Level 4, ISO 9001:2000 services company. Founded in Bangalore, "The Silicon Valley of the East", in 1994, we have successfully delivered over 500 projects involving application/product development, QA, maintenance, re-engineering and support.

With profitable and debt-free operations every year since inception, and Bank of America as a major shareholder, we have established ourselves as a reliable, long-term services partner of many companies in the US and Europe.

Benefits of Offshore Outsourcing

Justifying offshore outsourcing

Cost Benefits

Lower Manpower Costs

This is, by far, the most evident cost saving for the outsourcer.

Consider that for an US



programmer with about three years of experience, a company incurs at least \$50,000 per year in salary

alone, not including all the various healthcare benefits, infrastructure costs, etc. A similar programmer from India would cost about \$35,000 per year, *all-inclusive!* As the seniority and required skill sets go up, the cost gap widens further.

Reduced Capital Costs

The *all-inclusive* tag covers a lot of costs that the outsourcer no longer needs to bear – office space, furniture, computers, Internet bandwidth, common systems software licenses such as operating systems and popular databases...

Even in cases of specialized or expensive software such as high-end testing tools, the outsourcer pays much lesser prices thanks to the volume discounts that the service provider gets from the software vendor selling those tools. Most offshore service providers are also members of partnership programs of companies like Microsoft, HP, IBM, Oracle, etc., wherein they get access to the latest tools at nominal fees.

On-Demand Teams

Most IT end-users and product companies have varying

requirements for manpower. When they are initially building a product or when close to a release, they require more developers and other engineering resources than when they are just maintaining the software.

Taking on-board these additional resources entails large support expenditure like administrative costs, power consumption, telephone calls, etc. Obviously large fixed costs like this are difficult to absorb for small to medium product companies, which are working a limited range of products since it is difficult for them to frequently transfer (internally) such large teams like a larger IT company would!

Outsourcing allows for taking on resources only on a need-basis and thus, converts all fixed costs

related to human resources to variable costs.

Better Cost-Management

As companies get more exposure to the outsourcing model, they learn to control their costs with a better break-up of engineering activities.

For example, if a company is outsourcing its development requirements, but has decided to



retain its testing activities, it needs to ensure that it is outsourcing the exact activities to the offshore partner,

while ensuring that its own team is delivering correctly on the testing part.

This type of activities' break-up may seem tedious at first, but most companies end up improving their engineering cost

management structure in the long run. This is due to the fact that they are able to accurately determine their engineering cost heads (with exact costs under each item) due to the importance of outsourcing only the correct activities to their partner.

Business Benefits

Faster Time-To-Market



Having an offshore team that can ramped-up and ramped-down on a need-basis gives product companies the flexibility to shorten their time-to-market significantly at the same cost.

Better Resource Pool

Most successful offshore providers are typically located in places where they easily access resources in sufficiently large

numbers and at low costs. Sources of such resources are usually a large number of educational or vocational institutions and also the presence of a number of other companies in the same business in the vicinity.

For example, the state of Karnataka in India, whose capital is Bangalore, has more than 300 science colleges and more than 100 engineering colleges. This is apart from 2000+ training institutes and 1000+ other software companies of varying sizes in the capital itself.

Risk Mitigation

The various factors mentioned above – changing fixed costs to variable costs, reduced capital costs and abundant resources – ensure that the company is cutting down its business risks drastically when it wishes to grow rapidly.

Another major risk that outsourcing covers very effectively is the handling of new technologies. Outsourcing providers usually offer the latest technologies at more or less the same rates as old or existing skill sets. For example, .NET-based services are offered at the same rates as VB programming. To a company that needs to upgrade its engineering team for this same purpose, it means a huge amount of investment into new licenses, training of existing staff, costs of taking on experienced hands in the new technology while the existing staff upgrades itself, and more. Outsourcing providers spread the cost of these risks across clients.

Organizational Benefits

Benefits of Scale

The developers of product companies typically concentrate on building new features and are

more focused on their delivery deadlines as seen by their marketing teams.



This often leads to these companies to develop processes that are sales-oriented than engineering-oriented.

This may mean that the company's development team is not coming out with the best possible code or user interfaces that they can actually develop.

But, the engineering team of a provider approaches its processes more from the engineering side and focuses on code delivery rather than on features, since the client's team is already specifying what features need to be developed.

Also, due to the large number of projects that these providers are continuously involved in, they

usually have a ready solution for handling compliance issues, incorporating complex GUI functionality, and more.

Simply put, an external supplier who specializes in the performance of a particular task develops certain economies through its experience and investment of resources. These economies allow the supplier to perform the same task more efficiently than the buyer.

Improved Processes

As seen previously, companies that outsource have to carefully consider the split-up of their various activities to avoid duplication of work by the provider and also for defining the workflow between the in-house team and the provider's team.

This kind of micro-level re-looking at their core processes usually causes a sea change in a company's methodologies for software development and the company finds itself evolving into a process-centric organization that, in spite of some disadvantages, is best for the company in the long run.

*“When Spiders
Unite, They Can
Down A Lion”
– Ethiopian Proverb*

What Next?

While the benefits of offshore outsourcing seem to suggest a natural win-win situation, some relationships do turn sour. This seemingly inexplicable situation often arises from the choice of a wrong provider in the first place. In the next section we look at helping the reader with two things – a general strategy for software outsourcing and an evaluation criteria for choosing the best provider.

Planning for Offshore Outsourcing

Getting it right the first time

In this section, we look at 12 important principles of offshore outsourcing. While everyone wants to 'get it right' the first time, mismatches do occur, and sometimes relationships can go sour pretty fast. Properly followed, these principles help avoid such problems quite well.



Identify Your Core Competencies

When considering outsourcing, the most important thing to do is to identify what is going to be outsourced in the first place! While this may seem obvious, it can get pretty complicated when the outsourcer has to make decisions on a seemingly simple issue like who writes test cases for the developed software – in-house experts or the provider's team?

In such cases, it is best to know what your own core competencies are. If your in-house experts are among your most valuable assets, then pass on the routine task of test executing to the provider. However, if QA is your weak point, outsource the entire process to the provider.

"My Main Focus Is On My Game"

– Tiger Woods

Typically, a product company would like to focus on strategy, sales & marketing, consulting, and finance. Most other activities can be outsourced.

Find The Right Provider

The outsourcer needs to find the right provider to do all the things that have been earmarked for outsourcing. In this case, it becomes important to find an end-to-end service provider. The [next section](#) of this document gives the reader a quick guide to

evaluating potential offshore outsourcing service providers.

Get Involved, Know The People

It is very important that the management team at the outsourcing company get a first-hand experience of dealing with the provider. Ideally, this should be achieved through personal

***“He That Would Be A
Leader Must Be A
Bridge”***

– Welsh Proverb

meetings, site visits and pilot projects.

Management involvement is also essential to provide decisive leadership at all stages of the outsourcing relationship, including resolving issues before they go out of either team’s control.

Prepare A Roadmap

Once the outsourcer has broadly decided what activities will be outsourced, and found a suitable provider, the next important thing

is to put all the pieces together with various levels of agreements, from the long-term contracts to the individual service level agreements covering the finer details of the Quality of Service levels expected.

While drafting agreements, lawyers help only up to a certain point. Ensure that the agreement does not allow for an easy exit for either party, while making the conflict resolution



methods long-winded to prevent either party from frequently referring to an arbitrator or the courts for minor issues. This way, both teams will be encouraged to sort out their differences at every level of each organization.

Commit For The Long Term

While most providers provide the outsourcer with the flexibility to choose the offshore team’s

composition and size, it is in the best interests of both parties to agree upon long-term requirements. This could be from anywhere between a year to 5 years. This enables the provider in a number of aspects of planning such as infrastructure, human resources, budgets, etc.

The long-term contract plays a crucial role in this respect. Given the dynamic nature of technologies and the software market, it is important that the contract provides enough flexibility to ensure a win-win situation. If either party starts losing out when ground realities change, even a tightly bound contract can fall apart pretty soon.

“The Ultimate Test Of A Relationship Is To Disagree But Hold Hands”
 – Alexandria Penney

Prepare Your Employees

Outsourcing even a few functions can lead to much anxiety within the organization. This can lead to potential failures in your outsourcing engagement with either critical employees quitting out of doubts over their future, or lack of cooperation at the execution level between the two organizations.

Therefore, it is important that you prepare your employees ahead of the outsourcing. Some of the following have been helpful for our customers in the past:

- Communicate across the organization explaining the reasons for outsourcing, while mentioning the departments that will be affected
- Let people whose projects will be affected know all execution details of the proposed engagement – what projects, what roles, and what responsibilities are being

passed onto the outsourcing provider

- In the case of people whose positions are being outsourced, keep them informed well in time to give them sufficient time to find another job or re-train for other positions within your own organization
- Most importantly, let your employees meet with the provider's employees such as Account Managers and Senior Engineers before the engagement starts. Personal interactions help dispel any misconceptions about the provider's team working from thousands of miles away.

Measure, Measure, Measure

The most important feature of all quality systems is their emphasis on metrics. From on-time deliveries and defects per line of code, to developer efficiency and customer satisfaction, competent

outsourcing providers measure everything. Insist on understanding all their processes and set high expectation levels on metrics

*"Round Numbers
Are Always False"*

– Samuel Johnson

collection. Over time, metrics analysis of various projects gives you invaluable input for future planning.

Learn From Each Other

Outsourcing providers who have worked on hundreds of projects over many years accumulate lot of process and technical knowledge. Learning from these is typically well captured within their organizations and your teams can learn substantially from your provider.

Similarly, get your provider involved in your domain, so that they understand your customers' needs better, which in turn

translates to better software over time.

Anticipate And Accept Change

That there will be vast changes in technology every half-a-decade is a given in the software sector. These changes tend to bring in paradigm shifts, like the advent of Web technologies did to every business area. To be able to cope with such changes, both your provider and you need to upgrade constantly. These changes can lead to shift of roles between your team and the provider, depending on the new business realities.

Add the dynamic needs of your business plans to this, and you will see the importance of being prepared for changes constantly in outsourcing.

The best way to accommodate these changes is to have flexibility incorporated into the high-level agreements while accommodating

the finer details in the Service Level Agreements (SLAs). This way the relationship can be managed at multiple levels.

Mitigate Risks

Assess risks at every stage of the engagement, and try to cover them within the framework of the high-level and service-level agreements. Never hesitate to call for re-negotiation of terms and conditions that you previously thought safe, but can potentially jeopardize your projects.

Another useful risk mitigation strategy is to build in redundancy in your teams. This can be afforded by the high cost savings that offshoring brings. Having additional people onsite or offshore can be a useful measure to smoothen project deliveries.

Evaluating An Offshore Outsourcing Provider

Questions to ask yourself & your provider

There are four fundamental concerns that any outsourcer faces-

Cost savings

Are they significant enough to justify moving to an offshore model? In some rare cases, the outsourcer may already be employing low-cost resources, such as students working part-time, which would render offshoring unnecessary.

Provider Capability

Capability of a provider has four aspects to it: thorough processes, knowledge of various methodologies and ability to implement the appropriate one for every project, infrastructure – facility, hardware, software, etc., and finally, the right type and number of engineering resources

to do the job. Capability can also relate to availability of resources at the provider's city or region.

Provider Reliability

A capable, cost-effective provider may not necessarily be the right partner in the long run, since your business plans are bound to go haywire if the provider shuts shop at short notice! Fortunately, there are a number of ways in which a company's reliability can be measured. Reliability of the provider's location needs to be factored in too.

Value Addition

The provider's own future business plans could coincide with yours. While this maybe a potential conflict of interest, it could also present a great partnership opportunity in the future. An example of this is a provider turning into the professional services arm of a client.

The best way to evaluate a vendor is to prepare a selection criteria questionnaire that can be used for a one-on-one comparison between potential vendors.

Next, look at listing about 6 to 7 initial contenders and getting them to submit the above questionnaire. More companies would mean a longer decision time and maybe more expenses in visiting them individually. Ensure a good mix of company sizes, strengths (some maybe strong in your domain, while others are strong in a particular technology), and countries.

After this, short-list about 3 main contenders and subject them to a second round of telephonic inspections, referral checks and possibly running a pilot project with all three. Site visits to all 3 may not be necessary after this step, but consider that option if all three seem equally good.

Here's a set of questions that you can use for your questionnaire. All the best!

Cost Savings

1. What are the billing modes that the vendor offers? Can the vendor on multiple billing modes simultaneously?
2. What are the rates offered for each mode? Please provide details of your pricing structure:
 - a. Onsite rates
 - b. Offshore rates
 - c. Rate slabs based on different categories of resources or for different services, etc
3. How often will the rates change in a long term engagement? (explain with indicative data from previous engagements; any special arrangements for long term engagements that the vendor follows can be asked for)
 - a. Does the vendor offer long term rates with automatic increase to account for inflation, etc.
4. Does the vendor offer volume discounts? If yes, provide details of slabs with rates against each slab

Capability

Processes

1. Does the vendor have any processes in place for the various aspects of software engineering as well as other functions of its business? If yes:
 - a. What are the other functions covered?
 - b. Does this include metrics for customer satisfaction?
 - c. Is the vendor ready to share details of these processes, with metrics (if any), with the client for verification/evaluation?

2. Are these processes certified in any way? If yes, provide details of the same
3. Does the vendor have a roadmap for future certifications or upgrading its current certification levels?

Methodologies

Engineering:

1. What are the software methodologies followed by the vendor?
2. If yes, are these standard methodologies or are they defined/developed by the vendor itself?
3. If the methodologies are not standard ones, is the vendor willing to follow the client's methodologies or any standard one (if the client also does not follow standard methods)?
4. What are the tools used by the vendor for processes other than programming & testing:
 - a. Project management
 - b. Configuration management
 - c. Defect tracking
 - d. CRM (for use with client, or with client's customers)
 - e. Documents (MS Office, OpenOffice, StarOffice, etc.)
 - f. (Any others)

Business:

1. What are the different business models offered by the vendor (with reference to offshore outsourcing)?
2. What is the corporate structure of the vendor?

3. With what levels in the company would the client interact with for various purposes? (give a list of business, technical & financial contacts, along with escalation procedures for each)

Human Resource Policies:

1. Describe the various policies that the vendor has in place for its employees (handling attrition, notice period, employee confidentiality contracts, etc.)

Infrastructure

1. Describe the facilities owned/used by the vendor – buildings, environment control facilities (air conditioners, coolers, heaters, etc), power connections, backup power, facilities for employees, details of any guidelines followed, etc.
2. Describe the communication infrastructure in these facilities:
 - a. Telephone facilities
 - b. Fax
 - c. VoIP
 - d. Internet connections
 - e. Facilities for setting up dedicated VPNs for the client – prior experience, whether vendor's ISP can provide the same...
 - f. Backup for all above
 - g. Security for electronic connectivity
3. Describe the computer infrastructure of the vendor:
 - a. Hardware – servers, testing labs, simulation labs, etc.
 - b. System software – platforms, RDBMS, development tools, testing tools, etc.

4. Can the vendor bear/share the costs of a ramp-up in the computer infrastructure for the client? If yes, list any terms & conditions that may go with this

Human Resources

Engineering Resources:

1. Details of vendor's manpower: total numbers, technical staff numbers, etc
 - a. Give a profile breakup by qualification
 - b. Give a profile breakup by years of experience
2. Does the vendor employ any domain specialists, consultants, etc. in the client's domain? If not, is the vendor prepared to hire such personnel and bear the costs of employing them even if they cannot be billed to the client on a full-time basis?
3. How quickly can the vendor ramp-up its resources in case the client requires more and/or different manpower?
4. Give sample profiles of project managers, senior engineers, scientists, etc. who might be allocated to the client's projects

Non-Engineering Personnel:

1. Give details of non-technical staff employed by the vendor to run its business
 - a. Administration
 - b. Quality management
 - c. Finance & accounts
 - d. Human Resource management
2. If the vendor provides customer support services (call centers, technical support, etc), give details of the manpower for these

3. Give details of other resources employed such as technical writers, graphic designers, GUI analysts, etc. Kindly provide sample work done by these personnel

Reliability

Profile

1. Give a brief history of the vendor from founding, with highlights of any major events, major engagements, Quality timeline till date, etc.
2. Provide the brief profiles of all the senior management, board members, advisors, etc.

Experience

1. Provide details of vendor's experience in providing offshore outsourcing software services
 - a. Amount of business transitioned to offshore - indicative cost savings for previous clients from this
 - b. No. of man years
 - c. No. of calendar years
 - d. Engagement case studies
 - e. Project case studies
2. If the vendor has prior experience in providing offshore outsourcing software services, which are the markets that the vendor has serviced (with percentages and with country-wise break-up if possible):
 - a. North America: __% of total business
 - b. Europe: __% of total business
 - c. Asia Pacific (incl. Australia): __% of total business
 - d. Others: __% of total business

Financial Health

1. Give details of the vendor's current financial situation
2. Give a brief history of the vendor's financial position since founding
3. Give ownership pattern of the vendor
4. Give details of any insurance policies that cover the vendor's assets and other business entities
5. What accounting practices does the vendor follow?

Management Commitment to Clients

1. Give details of how the information disclosed to the vendor by the client will be protected from other clients, whether competitors of the client or not
2. Is the vendor committed long-term to the domain in which the client works? Provide verifiable details to substantiate the same
3. Does the vendor's long-term (current) business plan conflict with the client's own business in the domain?

Geographical Location

1. Where is the vendor's offshore facility located? Provide the following details as part of this:
 - a. International flight connectivity
 - b. Local facilities for client's visiting management or managers who might be posted for a few months at the vendor's location during the migration process
 - c. Local infrastructure – communications, power, etc.
 - d. Brief description of national, state/provincial/regional and local Governments (e.g. if the country is run by a military regime, business support policies in the region, political stability, etc. –

any and all factors that may be seen as relevant to doing business in the vendor's country)

- e. Languages spoken – locally, translation services offered by the vendor, etc.
2. Give a brief description of the educational facilities of the city or region that the vendor operates from – engineering schools, business schools, other companies working in the software field, etc. (to help determine how easily the vendor would be able to ramp-up its operations)

Past & Present Clientele

1. Give names or indicators of clients or types of clients that the vendor is working with or has worked with in the past in the same domain as the client (apart from establishing vendor's credentials, this also helps in understanding whether there are any potential conflicts in the target markets)

To understand the ability of the vendor to deal with clients of different sizes:

2. Give names or indicators of any significant clients in other domains
3. What is the size of the vendor's three largest clients?
4. What is the size of the vendor's three smallest clients?
5. What is the average size of the vendor's clients?

Value Addition

1. Does the vendor conduct any other business addressing the same target market as the client, whereby the two could potentially enter into a business partnership other than the vendor offering offshore services to

the client? (this needs to be answered keeping in context the question on potential conflicts of the client & the vendor)

2. Provide details of any unique value proposition that the vendor can offer to the client that might help it differentiate itself from other vendors also being evaluated

Others

(For product company)

Since the client is dealing with products as its main business, this section could provide some valuable points to judge the vendor:

1. Does the vendor have prior experience in working on products? If yes, in what aspects of product engineering other than development and testing?
2. How many aspects of a product life cycle can the vendor cover for the client - will the client have to go to multiple vendors for multiple services?
3. Flexibility - can the vendor absorb the risks involved in the frequent ups and downs in manpower requirements that product companies face?

Glossary

¹ ISO: The International Standards Organization has an industry-independent certification called the ISO 9000 series that focuses on the process definitions and documentation of organizations. The ISO 9001:2000 is the latest certification level relevant to software development. The ISO systems emphasize customer satisfaction and maintainability as the highest priorities, and all processes and documentation have to be primarily geared towards these two factors.

² Six Sigma

Derived from the Japanese manufacturing industry, this system of Quality was made famous by its adoption by General Electric across its organization. The system emphasizes defect removal as the most important activity of the Quality organization.

³ SEI CMM

Developed by Carnegie-Mellon University's Software Engineering Institute, this is the main Quality system for software service companies. Its appropriateness for this purpose is seen in its origin – the SEI developed it for the US Armed Forces to help them evaluate the quality of their software vendors' deliveries. This system focuses on customer satisfaction, removal of defects, profitability of projects and most significantly, the maturity of a software services organization's capabilities. This calls for constant improvements in the company's processes, and mere maintenance of a particular set of processes or documentation processes does not ensure successful assessment.