



Making the Most of Offshore Development Relationships

A White Paper



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Introduction

The trend towards outsourcing application development to offshore vendors continues to grow. Fueled by slow economic growth and a desire to cut IT costs without sacrificing productivity, companies are relying on global development resources more than ever. IDC estimates that U.S.-based companies will more than triple their offshore outsourcing spending in the next few years, from \$5.5 billion in 2000 to more than \$17.6 billion in 2005.¹

The benefits of outsourced development can be substantial; new companies are joining the ranks of global development organizations each day. To reap the benefits of outsourced development, organizations must climb a challenging learning curve and implement the best practices required for success.

What are some of the issues driving the growth of global outsourcing? Are certain types of projects better candidates for outsourced development than others? What are some of the key processes and best practices to follow when outsourcing development? What are the risks and how can you avoid them?

This white paper will help you determine if outsourced development is right for you and provide guidelines for identifying projects that are good candidates. It will also review how you should select an offshore partner and set your initiative up for success.

¹ International Data Corporation, 2002.

Part 1: To Develop Offshore or Not? That is the Question

With ever-changing market conditions affecting businesses worldwide, development organizations are looking more and more to offshore outsourcing as a viable alternative to expensive in-house development. U.S. organizations are outsourcing software development to offshore vendors as a means to control costs without sacrificing quality. However, concerns about intellectual property (IP) security, disaster recovery and business continuity persist. Offshore development organizations are aware of these concerns, and are adjusting their processes, tools and offerings accordingly.

Through improved process and skills development, India has established itself as the leading offshore developer. With a large and expanding skills base, high-quality education system and strong command of the English language, India currently serves 185 of Fortune 500 companies as an offshore resource in some capacity.² In addition, there is significant offshore development activity in Pakistan, Ukraine, Russia, Israel and Ireland.

Why to consider offshore development

In an April 2002 survey conducted by CIO Magazine, CIOs, CFOs and IT directors reported the following reasons for outsourcing:

- Lower IT costs and capital expenses
- Compensate for lack of internal staff
- Improve quality
- Accelerate time to market³

They also reported the following actual benefits gained from offshore outsourcing:

- Improved quality of IT support and applications
- Lower IT costs
- Faster time to market of applications
- Reduced headcount (internal staff/consultants)
- Stronger business continuity
- Improved security
- Lower or transferred capital expenditures

If your organization is facing similar business and technical issues, outsourcing your application development offshore may be a suitable solution. However, as with any new mode of business, there are always costs and trade-offs.

Facts about India's Development Market

- India's software export market grew approximately 50% per year between 1996 and 2000, and approximately 65% in 2001
- 2002 saw this growth rate drop to about 23% versus domestic firms with flat or negative growth.
- 2001 software export revenues = \$8.26 billion, 44% of this from offshore work and 62% from U.S. firms
- 270 Indian firms have offices in the U.S.
- 2001 revenue for India's largest vendor (TCS) = \$689 million

Source: NASSCOM, 2001

➤ Lower IT costs and capital expenses

By taking advantage of offshore development resources, you can make a tactical investment in a project team focused on specific deliverables rather than a strategic investment in a full-time, generally-focused team. The per-resource cost for outsourced labor can be less expensive and usually does not include overhead associated with hiring full-time, internal resources. In addition to lower labor costs, a number of countries offer tax advantages and other economic incentives to businesses. A side benefit of using external labor is a reduction in turnover and increased retention of your onshore staff—you can provide them with more motivating, stimulating projects, allocating routine development projects to your offshore resources.

➤ Lack of expertise and experience locally or internally

Finding resources with the right skills is always challenging, even during a slowed economy. Analysts continue to predict a shortage in the supply of qualified IT professionals. Many countries recognize the advantage of a skilled labor pool in attracting work from foreign countries. For example, the government of Singapore offers college students incentives to pursue studies in areas matching the needs of foreign companies. When resource bandwidth is limited, or developers are scarce in your geographic area, utilizing

² NASSCOM (National Association of Software and Services Company), October 18, 2001.

³ *CIO Magazine* (August 1, 2002).

developers abroad to meet urgent deadlines could be the answer. For many companies, this was the solution used in resolving Y2K readiness issues.

➤ **Improved quality of service or increased productivity**

Offshore development providers are focusing on process documentation and standardization in increasing numbers. Of the 60 companies worldwide that have attained CMM Levels 4 or 5,⁴ 32 are based in India.⁵ In addition, the cultural and work practices of many countries encourage greater time commitments by foreign workers than in the U.S. For example, a typical workday in India is nine hours long, and workers routinely work on Saturdays. This increase in investment enables a better quality of finished product and higher predictability and repeatability through the project lifecycle.

➤ **Accelerate time to market and time to completion**

Maximize development time by taking advantage of global time zones, creating a new delivery model that benefits from a 24-hour day. This is achieved by coordinating project transitions between development centers, providing better customer satisfaction by quickly resolving technical issues. For example, a bug reported by a client at the end of the day in the U.S. could be resolved by a developer in India by the time the U.S. client starts work the next day.

➤ **Other considerations**

The benefits of outsourcing are many, but given the complicated nature of outsourcing offshore, there are other factors you must seriously consider.

Is the size and type of project suitable to outsource offshore?

Not all application development projects are suited to outsourcing, offshore or on. In general, the most successful are medium or large projects that have been well-defined and well-planned, and do not require extensive day-to-day management from the onshore office.

In addition to new application development, enhancements to existing applications can be good project candidates. A global outsourcing team is often able to make improvements in an existing application, not necessarily from an increased level of skill, but from the nature of global outsourcing. An outsourcing team can bring fresh ideas and perspective to new assignments, along with the successful methods and solutions used on previous projects.

Some offshore development organizations specialize in legacy application support. By outsourcing the enhancement or maintenance of legacy systems, you free your internal (onshore) development teams to focus on strategic initiatives critical to the success of your business, leveraging the proximity of your core development team to your customers.

How large should the offshore team be to be worthwhile? (Defining critical mass)

By evaluating costs versus benefits upfront, you may find that upfront fixed costs may not justify establishing a small offshore team for small or short-term projects. Few people work effectively in isolation. Build a team sufficient to include members with similar experiences and skills. They will more easily collaborate on development activities.

Are there management tools in place?

Global outsourcing has the potential to help overcome IT professional staff shortages and reduce application management costs, but only if managed correctly. With part of your team located in other time zones, it is critical that you have management tools in place that enforce established process standards, IP security, and maximum visibility and control. Carefully consider how you will manage the development project, the offshore staff, and the tools you will need to facilitate the management process.

⁴ CMM, or SW-CMM, refers to the Capability Maturity Model for Software—the de facto standard for assessing and improving the maturity of software development processes of an organization. The CMM is organized into five maturity levels.

⁵ SEI, *Understanding High Maturity Practices*, April 2002.

The cost of procurement and training on new tools must be factored into the cost model. At a minimum, the tools that you select should allow you to:

- Accurately communicate requirements
- Track status
- Provide early notification of problems
- Support exception management processes
- Maintain IP security

Are the communication skills of the offshore team adequate for your needs?

If the primary language used in the country you are considering is other than English, are there sufficient written and oral English language skills for both sides to communicate clearly?

How long will it take to ramp up?

Relationship-building takes time. Bringing the offshore team up to speed involves not only understanding the application requirements, but also understanding process and culture on both sides. Often an offshore team will not become truly productive (by onshore standards) for at least three to four months, or even longer for more complex projects.

Is there a process in place for knowledge retention and transfer?

Keep in mind that the offshore staff working on your projects will develop skills and experiences that will be valuable in the future. Determine up front where such skills and experiences should reside. Is the knowledge a tactical or strategic component of the project? How can it best support your business goals? Who will need access to this information?

How secure is my company's intellectual property?

It is critical to establish an environment of trust with the selected vendor, while executing the necessary legal protections. Make sure there are protections in place in the event of turnover at the offshore vendor. Consider outsourcing development work that will have little impact on your business if it is "appropriated." Groundbreaking research may be better held internally, while sustaining engineering on established products can be outsourced offshore.

Understanding associated risks

Although all outsourcing involves risk, the additional risks involved in outsourcing offshore can be minimized. Differences in culture can result in miscommunications, or assumptions made by either side that are incompatible with your business goals. Several strategies can be used to mitigate risks, including using a project manager who has cross-cultural experience, or providing cultural sensitivity training to team members on both sides. It is critical to implement an ongoing program that stresses global and cross-cultural awareness, creating a comfortable multicultural workplace.

Summary

Offshore outsourcing is another example of the current global economy and how world commerce is interlinked. If your goals are to lower IT costs, improve software quality and accelerate your time to market, several aspects of offshore outsourcing may assist you in attaining those goals. In recent years, offshore providers have demonstrated an increased focus on process certification, documentation, standardization, business continuity and security—all of which can only benefit your application development initiatives. The key is to understand the risk factors as well as the advantages before engaging in an offshore solution.

Part 2: Selecting an Offshore Partner

Setting up a successful offshore outsourcing relationship requires a great deal of planning up front. While this process can be time-consuming, it is essential for success in the long term. In general, the following steps should be followed in evaluating and choosing an offshore outsourcing vendor:

- Select an appropriate offshore engagement model
- Select countries or territories you will consider
- Define vendor requirements
- Evaluate individual providers against key requirements
- Create a short-list of candidates who meet key requirements
- Issue a Request for Proposal (RFP) to short-listed providers
- Make selection and execute agreement

1. Select an appropriate offshore engagement model

The three main types of offshore engagement models are staff augmentation (sometimes called a “body shop”), managed team, and offshore development center (ODC). Each model has advantages and disadvantages, and costs associated with each model vary significantly. Limit your exposure to risk and possible failure by carefully evaluating your project requirements upfront.

➤ **Staff augmentation – using a “body shop”**

A “body shop” is usually a small company with specialized developers. This model works best with smaller projects and groups of highly motivated individuals. A team of developers is assigned to your project based on their skill set and the needs of the particular project. Your onshore managers are responsible for managing this staff directly. If controlling costs is a major decision factor for your project, this may be an option to consider, as it involves no offshore middle management. However, managing such a team remotely can be difficult. The lack of day-to-day control and visibility can make it difficult to communicate, and result in substantial delays. The “body shop” model should only be used when the project is smaller and well-defined, and the offshore developers are highly skilled, highly disciplined and self-managing.

➤ **Managed team**

Generally, managed teams require both an onshore vendor manager, who manages the vendor relationship and project milestones, and an offshore project manager or team leader. It often makes sense to bring the offshore project manager onsite to work in close contact with your business managers, and to encourage a sense of shared ownership and accountability. The onsite project manager acts as a “cultural interpreter” and would be alert to process and communication issues affecting the project.

The use of a managed team can increase your oversight and visibility into outsourced projects, reducing the risk of miscommunication. Management time, communication costs (telephone, travel, etc.) and project complexity will increase, but this degree of structure is necessary to avoid potential risks associated with lack of visibility.

➤ **Create a corporate identity through an offshore development center**

An offshore development center can be one of two types: (1) a subsidiary of your U.S.-based company, or (2) a totally independent entity. There are advantages and disadvantages to both. With the ODC as a subsidiary of your company, you will have more control and greater visibility into ongoing projects and operations; however, the cost advantages may be minimal due to corporate governance, tax and other liabilities. If the ODC is established as an independent entity, you will probably experience greater cost savings, but will have less control. Both options should be thoroughly investigated before making any significant capital investment. An ODC should only be considered by organizations with significant offshore development experience.

The key to a successful outsourcing experience—regardless of the engagement model you choose—is to treat your offshore development team as an extension of your onshore staff. By including them in planning and decision-making, you improve their morale, productivity and motivation.

2. Select countries or territories

The most widely-cited success story is India, but other countries are expanding their outsourcing capabilities, including Israel, Russia, China, Singapore, the Philippines, South Africa and many Eastern European countries.

In selecting a country or region in which to do business, numerous factors need to be considered, including geopolitical stability, location, regulations, government support, utilities and communications infrastructure, the educational system and availability of skilled resources, and language skills. Depending on the complexity of your project, some of these issues will be more relevant than others. Carefully consider the trade-offs between potential risks and benefits.

- **Geopolitical stability**
Geopolitical stability is a key concern for any U.S. company doing business offshore. Carefully evaluate the current and long-term situation in each country. Consider spreading risk across several countries and regions, rather than concentrating all development efforts in a single country. Be aware that this may increase both the complexity and the costs of a project, as well as the associated communication burdens. Prepare contingency plans for disaster recovery—plan for security, network redundancies and backup centers outside the country.
- **Location**
Distance affects travel time and costs, as well as schedules. Working with countries in the same time zones as the U.S., such as Canada and Mexico, require less travel time. On the other hand, working with a country in a different time zone, such as India, may provide your organization with the ability to truly work around the clock and offer 24 x 7 support.
- **Regulations**
Government regulations have significant implications for immigration, fund transfers and tax liabilities in other countries. Make sure that your legal counsel and financial staff are closely involved in the country selection process.
- **Government support**
Some governments promote foreign investments by providing tax incentives to multinational corporations. For example, Singapore seeks to attract U.S.-based ventures by offering strong investment incentives. Ireland provides significant tax advantages to foreign corporations employing Irish resources.
- **Utilities infrastructure**
Is reliable infrastructure in place for power, heat and water? If not, how does the offshore vendor plan to provide continuity of service?
- **Communication infrastructure**
Are the core communication systems in a given country sufficient to accommodate your needs? Does the offshore vendor under consideration have reliable access to bandwidth and other communications services?
- **Educational system and availability of skilled resources**
What level of education is available in engineering, math and computer science? The level of engineering skills found in India is very high. Indian schools graduated about 75,000 IT experts in 2002, compared with only 35,000 IT graduates in the U.S.⁶
- **Language skills**
If most of your internal development organization is staffed with English speakers, the level of English taught and spoken may be a key consideration in selecting countries.

⁶ National Science Foundation, 2002.

As you select a country that fits your requirements, you should plan for potential risks with risk mitigation strategy that addresses the following issues:

- Business continuity, disaster recovery and crisis management plan
- Partner country infrastructure, laws and regulations affecting IT
- Potential cultural differences and how they can be overcome
- Potential language barriers and how they can be overcome
- How time zone differences will be accommodated
- How travel and virtual team meetings will be accommodated
- Overall geopolitical situation and contingency plans
- Possible risks to the telecommunications infrastructure and appropriate contingency plans
- Possible risks to the general infrastructure and appropriate contingency plans

3. Define vendor requirements

Define the key requirements for a successful vendor. The example outlined in Appendix I, “Offshore Vendor Selection Criteria,” is intended as a guideline to help you establish those criteria essential to the needs of your organization.

4. Evaluate individual providers against key requirements

Individual providers should be evaluated on more than cost-effectiveness alone. More important is the quality of actual work delivered, as well as the quality of the client-vendor relationship itself. Additional factors to consider include financial stability, certification (e.g. SEI SW-CMM assessment level, ISO 9001), customer references, domain expertise in technology, and commitment to establishing a partnership.

Refer to the “Offshore Vendor Selection Criteria” chart in Appendix I, and adjust the criteria as appropriate to meet the needs of your organization. Be sure to involve staff from different disciplines in the internal review process. Remember: your sales, marketing, legal, finance and tech support organizations will also be interacting with the offshore vendor—not just your development organization.

Vendor size

The size of your organization and the organization of your vendor may be an issue. If you are a large company or group with a wide range of needs, using a large outsourcing vendor may allow access to a wider range of expertise. However, as a client you may not represent a large percentage of revenue; therefore, you may not have as much control in the engagement as you would with a smaller vendor.

Conversely, outsourcing to a smaller organization may allow for a higher degree of control, but you may overwhelm their resources. If their resources are limited or not diversified, they may not be able to respond quickly to meet your changing needs. By putting all your development “eggs” in one small basket, you add the risk of your project failing if their company fails. Lack of infrastructure can make it difficult for smaller vendors to adequately support large, high-value projects. Evaluate vendors carefully to determine if their level of support can remain consistent over the long term.

References and trials

A reputable development organization in any country will be willing to provide a prospective customer with samples of their work, documentation of their internal methodology, and existing customer references. In this way, you can better evaluate their programming skills, management skills, and language skills.

Ask a potential offshore vendor to provide a free, or low-cost, small initial project as a demonstration of their abilities. This would lower risk on both sides. You could assess the vendor’s effectiveness in project management, communication style, skill levels and culture. You would also learn if they are willing to use the tools you normally use. A trial period allows the offshore vendor to prove its value at a low investment cost and both sides can determine if a long-term relationship is possible. More details are available in Appendix I – “Offshore Vendor Selection Criteria.”

Hidden costs

When evaluating the total cost of an offshore arrangement, consider costs associated in managing and communicating with offsite staff by your management team and staff. As the amount of work performed

offshore increases, the bandwidth required of the onshore management team needs to increase proportionally. There will be travel costs with an offshore project that are not necessary for an onsite one, as well as additional communication costs (telephone, videoconferencing, e-mail, etc). However, with the cost of high-speed bandwidth decreasing, the exchange of information electronically is becoming more economical, along with other telecommunications options, such as videoconferencing.

5. Create a short list of candidates who meet key requirements

Have candidates complete a key requirements form, indicating their level of compliance with each line item. Develop a score based on the weighted feedback from each candidate. Consider the timeliness of their response—this may be indicative of their responsiveness during the actual project. Request a formal proposal from a short list of two or three vendors, based on their initial scores.

6. Issue a Request for Proposal to short-listed providers

A Request for Proposal (RFP) should include specific guidelines relevant to the development of software and issues involving offshore outsourcing that may not be included in your standard RFP. These should include (but are not limited to) a detailed description of staff resources, physical facilities, hardware, operating systems, development tool software and communications infrastructure. Make it clear the successful vendor will be chosen based on available resources, staff experience and past performance, as well as cost. A full list of criteria can be found in Appendix I – “Offshore Vendor Selection Criteria.”

7. Make a selection and execute the agreement

While many of the same issues must be addressed in an offshore development agreement as any other outsourcing agreement, there are some which require special attention.

- **Reduction in cost of individuals as staff increases**
As the project progresses and the offshore team expands, the average cost per engineer/developer should drop appropriately. In this way your vendor remains cost-competitive, and your anticipated cost savings do not evaporate with increased overhead.
- **Specify length of agreement and conditions for termination**
The objective is to maximize the amount of notice a vendor must give you prior to terminating the agreement, while minimizing the notice period that you must give the vendor. You should also consider renewing the contract on a quarterly basis. This encourages the vendor to remain productive and affords you the opportunity to cancel the contract if the vendor ceases to perform according to the terms of the agreement.
- **Establish performance and productivity objectives**
By tying performance and productivity objectives to costs, you motivate the offshore vendor to achieve and exceed the original goals. Establish a specified bonus structure, making sure the objectives are realistic and attainable. If bonuses are paid as productivity increases, productivity must be well defined.
- **Define a clear escalation procedure**
An experienced offshore vendor will already have a system in place to swiftly resolve problems with the execution of the contracted work. Make sure the particular needs of your project or company are addressed and clearly defined.

Summary

When evaluating a potential offshore development engagement, the more time you spend outlining the specific requirements and goals of the project, the better your chances for success. A strong RFP and contract are invaluable to the selection process, as well as the quality of the relationship moving forward. Carefully balance overall costs with management costs; the lower-cost vendor may not be the best one for your needs. Also critical to success is an offshore team committed to continuously improving their processes—and supporting your own process improvement efforts.

Part 3: Implementing a High Quality Offshore Development Model

Once you have weighed all the pros and cons of outsourcing offshore, decided it is right for you, and engaged an offshore vendor, the next step is to establish the operating processes governing that relationship. Defining success and failure criteria to measure both your performance and your vendor's is critical.

In this section we cover the key issues of planning, management, communication and visibility, all key to the success of your outsourced project. We define an approach to each issue, and demonstrate how an integrated collaborative development solution can enable each key area.

Planning

Your RFP and contract should specify exactly what is expected of all parties, but it is critical to the success of your offshore outsourcing engagement that you implement, monitor and enforce best practices.

- **Product requirements**
Research, describe and select the desired features of a product. This process can be lengthy, but the results form the cornerstone for all future development and supporting activities. The Statement of Work forms the starting point for identifying the nature and scope of subsequent requirements-gathering activities. The overall scope of the project (including timelines, budgets, resource availability and strategic goals) and product requirements are key considerations.
- **Engineering estimates**
Have your engineering team review the proposed feature set and provide estimates of effort as early as possible in the product definition phase. Accurately scoping the project early reduces unnecessary work defining unrealistic product requirements. At the conclusion of the project, compare the accuracy of the estimates against the actual effort expended. (This should be done for both offshore and onshore portions of the project.)
- **Establish guidelines for submitting changes**
Establish guidelines for submitting feature requests, product defects, bugs or support requests. A change management system must be easy to use, providing approvals or denials in a timely manner, and include an easily accessible audit trail in case of problems or conflicts.
- **Staff selection**
Get involved in the staff selection process for your project as much as practicable. Use the same skill definitions for the offshore staff as used for your onshore staff. Interview potential staff if possible while retaining the right to reject candidates if required.

Management

Once you have selected an application that is suitable for developing at a remote site, the transition phase from internal to external development requires critical attention. An onsite project manager will manage your project according to your preferred standards, making sure the delivery team understands your organization's culture. Your outsourcing supplier must also have systems in place to detect, communicate and resolve performance problems immediately.

- **Project visibility across teams and time zones**
It is beneficial to the success of the engagement to have complete visibility into the project by all stakeholders. This includes not only project managers and engineers, but developers, sales, marketing, and other relevant business units. This can be accomplished in part through the use of a project management tool, such as Microsoft Project. A challenge to the use of such a tool is that it is static, requiring manual updates by individual contributors, and can quickly be outdated. An alternative is the use of a collaborative development platform which automatically captures task updates, keeping the project view current.
- **Iterative document review and approval process**
Involve all functional stakeholders in an iterative document review and approval process. All changes to key documents must be recorded and new information communicated to all concerned parties.

Communication

➤ **Maintain continuity of communication**

Communicating expectations with the offshore provider aligns the vision for all involved. When assigning project tasks and where they will be completed, carefully plan the number of points of contact through which communications will flow. Your objective is to reduce communication problems. At each point, or node, of a communication you run the risk of information being modified or lost. The more nodes in a communication, the more likely the outcome will not reflect the original need.

Simplify communication by reducing the number of nodes. One way to do this is by grouping functions logically. If product conception, planning and design are performed in one location, and implementation and testing are performed in another, there are only two communication nodes – relatively safe for effective communication.

➤ **Collaborate on design challenges**

After product requirements are translated to working, technical specifications, decisions must be made regarding design alternatives when more than one is offered. You may have to look outside your core development group for the required skill set. It is critical your offshore development team remain a part of this process. Facilitate communication with offshore teams through the use of newsgroups and forums, and keep them involved in all supporting activities, such as field-testing, user-interface design and documentation. Capturing issues and problems encountered during the design or development phases of a project can be used to improve your processes and best practices on subsequent projects.

Visibility through standardized tools

The objective of a standardized tool set is to create a single view into all stages of the product development lifecycle, using a single language or notation for describing progress, problems and plans. This allows for standardization of project management processes as well as creating a common scale for measurement. Both support overall project agility by providing more accurate information to project managers in a timely manner, allowing them to react quickly to change, and make better informed decisions.

Creating a homogeneous development environment from a heterogeneous tool set can be expensive, time consuming and generally frustrating for all involved. An alternative is for offshore developers to continue to use the tools with which they are already familiar. They have already made an investment in these tools, been trained and proved to be productive. The implementation of a collaborative development platform can fill in the gaps where tools may be insufficient or missing.

➤ **Standardize processes**

As mentioned earlier, offshore outsourcing vendors are increasing their focus on process standardization and certification. Unifying your onshore and offshore teams with standard project-wide processes allows for easy transfer of staff and knowledge to the benefit of the overall project. It also allows for problems or exceptions to be dealt with in a timely manner, and for project measurements to be consistent across teams.

Standardized tools-based views into projects and processes keep everyone on the same page. An ideal collaborative development process delivers both software design and engineering best practices, covering the complete circle of the software development lifecycle, and ensuring process repeatability. For those involved with Software CMM certification, key process areas should be easily identified and mapped to the appropriate CMM requirement.

➤ **Maintain a central repository of all development activity**

Creating a central repository for all development-related activity and information is a critical step in standardizing development processes. Archiving source code, documentation, communication, task assignments, issue tracking and other software project information in a central location makes it easy for information to be shared among onshore and offshore developers and managers, improving communication and collaboration, and enforcing accountability. It also helps you avoid losing critical data and IP.

If access to certain information and IP is particularly sensitive, access to the central repository should be controlled based on well-defined criteria, such as project team membership or functional role.

Other issues

Many of the same wisdoms apply, whether engaging an offshore vendor or an onshore one, but they bear repeating:

- Partner with a vendor with a proven record of success over several years.
- Agree on deliverables, scope and controls up front.
- Choose a project suitable to outsourcing.
- Determine the level of knowledge management and retention to remain with your onshore entity.
- Establish a long-term relationship; it will pay off in the long run.
- Visit your development partner regularly and often. Balance face to face meetings with telecommunications and other electronic media.
- Establish sound management practices from the beginning.
- Insist on strong onsite project management.

Summary

The challenges and risks involved when implementing an offshore development relationship can be mitigated if you keep the following in mind:

- If reducing cost is your main concern, offshore development may be profitable in the long run. It is not recommended for short-term or one-time projects.
- Strong onshore and offshore project managers can make the difference in the success or failure of your project.
- Treat the offshore team as an extension of your onshore organization.
- Empower the offshore team for maximum productivity and creativity.
- Conduct regular, comprehensive joint review sessions.
- Planning is valuable, but expected the unexpected.
- Provide visibility into all corners of the enterprise through standardized processes and tools.

The key challenges in implementing and managing development activities, offshore or onshore, are maximizing your visibility across tasks or projects, and maintaining a high level of communication between all parties involved. The more visibility you can achieve, the more predictable your project becomes. Managers can better plan, and then execute effectively, leading to predictable completion dates, quality development and robust feature sets.

Offshore application development outsourcing can allow your company to accept the challenges of today's global economy. Supplement the strengths of your organization and of your development team by teaming up with an offshore vendor, eager to become an integral partner in your success.

Appendix I: Offshore Vendor Selection Criteria

An offshore vendor should be selected based on an evaluation of the following criteria:

| # | Feature | Requirement |
|----|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Longevity/Stability | <ol style="list-style-type: none"> 1. Vendor has been in business for reasonable amount of time. (e.g. five (5) years) 2. Demonstrates good long-term financial viability. |
| 2 | Relationship | <ol style="list-style-type: none"> 1. Demonstrates ability to forge close, working relationships with partners. Vendor to provide minimum number of references to contact (e.g. three (3)) about their experiences using vendor in a similar role. 2. Accepts criticism; responds in a timely and acceptable manner. 3. Has a defined escalation mechanism to swiftly resolve problems, conflicts, etc. |
| 3 | Onsite (Domestic) Project Manager | <ol style="list-style-type: none"> 1. Will provide an onsite Project Manager (PM) to coordinate offshore activities. 2. Agrees that PM may only be changed after (a) Minimum 8 weeks' prior notice (b) Minimum 4 week transition to new PM, (c) Approval by XYZ Co. of new PM prior to handover. 3. PM issues a weekly status report, summarizing tasks performed by each team member and progress toward goal attainment. |
| 4 | Priority setting | <ol style="list-style-type: none"> 1. Offshore team members will be allocated 100% to your project. 2. XYZ Company will set project goals and priorities, and retains the right to alter goals and priorities at its discretion and without prior notice. (Offshore team is an "XYZ Engineering Team" rather than a contract work-for-hire group that processes many, individual work orders). |
| 5 | Cost and contract | <ol style="list-style-type: none"> 1. Cost to XYZ Company is competitive. 2. As team scales, the average cost per-engineer will drop. 3. Contract will be renewed quarterly subject to the terms defined herein and reflected in the agreement being consistently met. |
| 6 | Capability to locate staff on site from time to time | <ol style="list-style-type: none"> 1. Agrees to acceptable minimum (e.g. 72 hour) lead-time necessary to occasionally locate an offshore engineer on site (at XYZ) to resolve critical issues. |
| 7 | Team growth | <ol style="list-style-type: none"> 1. Demonstrates capacity of skilled resource such that additional staff can be allocated to the XYZ Co. project within thirty (30) days of XYZ's request. |
| 8 | Communications infrastructure | <ol style="list-style-type: none"> 1. Office hour access via phone. 2. 24 x 7 communications via e-mail. 3. Video conferencing capabilities 4. Web-based conferencing (e.g. WebEx) for on-line white-boarding and product demonstrations. 5. Willingness to use established best practices throughout the relationship to standards defined by XYZ Company. |
| 9 | Hardware | <ol style="list-style-type: none"> 1. Provides staff unrestricted availability to sufficient hardware at offshore vendor cost necessary to execute the defined project(s) without limitation. (For example Hardware platforms include: Linux; Sun Solaris; IBM AIX, HP HP-UX.) 2. Has support and maintenance agreements in place with the vendors of the platform systems. |
| 10 | Software | <ol style="list-style-type: none"> 1. Provides staff unrestricted availability to sufficient software at offshore vendor cost to execute the defined project(s) without limitation. (For example, software tools might include: IDEs; Mercury Loadrunner, QuickTest, test director.) 2. Has support and maintenance agreements in place with the vendors of these software packages. |

| # | Feature | Requirement |
|----|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11 | Staff skill set | <ol style="list-style-type: none"> 1. Project team must include members who can write Technical Design Document (TDD) software designs from XYZ provided PRDs. (Provide example materials) 2. All staff members have demonstrably high quality coding skills. (Vendor should provide data that defines the internal quality standards to which they adhere, status/results and plans for improvement.) 3. All staff must be fluent in written and verbal English. 4. All staff must adhere to the then current "XYZ Coding Standards" document. XYZ Company will provide offshore vendor with updates to the coding standards document as they become available. |
| 12 | Staff retention | <ol style="list-style-type: none"> 1. Agrees that no more than 10% of staff allocated to XYZ Company will exit the project in any six (6) month period |
| 13 | Quality | <ol style="list-style-type: none"> 1. Demonstrates industry standard levels of quality, e.g. ISO 9001/9002 certified, or has documented level of SEI CMM (or equivalent) achieved and has plans to increase quality. |
| 14 | Site audit | <ol style="list-style-type: none"> 2. Will host an offshore development-site review and audit of development practices subject to reasonable advanced notice from XYZ Company. |
| 15 | Approval of staff | <ol style="list-style-type: none"> 1. Gives XYZ Company ability to accept/decline proposed project staff based on review of resumes and interviews with staff. (Such acceptance will not be unreasonably withheld by XYZ.) 2. Accepts XYZ definition of minimum skill level allowed on the XYZ project. Will accept XYZ's recommendation regarding staff to be removed from the project based on XYZ's review/feedback. |
| 16 | Strategic partnership | <ol style="list-style-type: none"> 1. Commits to evaluate XYZ products for use internally on other (non-XYZ) projects. 2. Willingness to introduce XYZ into Fortune 1000 accounts, if appropriate. 3. Will contribute to a XYZ-sponsored 'white paper' documenting XYZ and vendor experiences on this project. White paper will be used by XYZ marketing. |
| 17 | Working conditions | <ol style="list-style-type: none"> 1. Pays prevailing wage for technical professionals. 2. Provides work environment conducive to the software development discipline. |