



# white paper

## STATE OF GLOBAL OUTSOURCE SOFTWARE DEVELOPMENT

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It is hard to imagine that large scale software outsourcing was just coming into its own about a decade ago. Largely driven by a requirement to implement low labor cost fixes to the "millennium bug" US companies looked on a grand scale to India and Europe looked to its east for development resources. Since that time the scale, sophistication and specialization of software firms specializing in third party software development have created new classes of companies and products which today are bringing great value to all sectors of the technology industry worldwide.

The purpose of this white paper is to highlight some of the underlying trends now occurring as third party software development has grown from its infancy to its adolescence:

### 1. Increased specialization

In the late 90's and early in the decade outsourcing principally consisted of staff augmentation for IT focused development (remember that millennium bug...) and grew rapidly to include software product development. Obviously the nexus of this activity was India leveraging the very strong representation of India executives in US technology companies and the strong university system as characterized by IIT. Of course this was all made possible by the very low labor rates for Indian developers of a decade ago – <10% of US labor costs.

Quickly IT centered staff augmentation companies started also doing staff augmentation for software product companies - that low labor rate proved too irresistible. Unfortunately the requirements of doing projects for IT groups in US companies turn out to quite different from the requirements of software product companies: engagements tend to be project focused (they have a beginning and an end), often involve large programming teams but for short periods and have strong tendencies toward enhancement of legacy systems. By contrast product development work by definition is long term (there is always a 2.0 release...) and more often times than not are innovative, leading edge products. As a result product development outsourcing has tended to specialize into companies that either do either IT oriented work for large US companies and those that work developing product for typically smaller, earlier stage American companies.

This differentiation has become very pronounced - beware selection of a company without noting their specialization. The IT oriented companies tend to focus only toward larger engagements which have 10's to 100's of developers but have a tolerance toward much higher levels of attrition since the projects may only last months. The product companies need to have a very stable development pool which in general is more technologically sophisticated and can take on products which may require 5-10 developers or even less. There are many differences that result in these companies: in the first group CMMI compliance is important for example. In the second group agile programming is important.

## **2. Increased sophistication in providing seamless project management**

For any outsourcing project the primary issue is one of how to manage multi-site development. More times zones between the company headquarters and the development team only tends to amplify the requirements for well managed engineering process and communication. Increasingly tools have come to be developed which supplement the project development process so as to make multi-location development look more like "the cubicle next door." There is quite a bit of opportunity yet to capitalize in this area but the trend in increasingly sophisticated tools is already there and accelerating.

## **3. Death of staff augmentation toward project management and virtual engineering**

In terms of multi-location project development the most difficult problem is how to handle small scale staff augmentation. If you have a team of 10 developers in the US and 2 additional developers in a remote location (onshore or not) the management overhead associated with this structure tends to dominate the cost/benefit equation. As a result increasingly multi-location development (outsourced or not) tends toward moving entire project teams to one site or the other thus lowering the management and communications overhead. Typically this is represented as a trend - many product engagements start as staff augmentation but develop into project development over time.

The extreme case of this which has now become common practice among early stage companies is to have the ENTIRE engineering team be located offshore. This is largely driven through the exigencies caused by the shortage of human capital onshore (there are still many more jobs for developers in the US than there are people even in a tough economy) and also the realities of the limited sources of capital available today to early stage startup companies.

#### 4. Move away from India and development of new outsourcing growth regions

Due to the success of the Indian economy in generating demand for knowledge workers to support the domestic economy and also as a result of the explosive growth of outsourcing to India earlier in the decade, the cost of Indian development labor has skyrocketed. These same trends have caused huge attrition problems for many of the Indian outsource firms. Many US companies were willing to put up with a business day that had no overlap with the US (i.e. make the US project managers stay up late...) but without the compelling cost differential and the high attrition this is no longer the case. As a result there is a worldwide shift in which US companies are looking to many different locations where to settle their development resources (this problem is much easier in Europe where they have naturally looked to the East). As a result US companies are experimenting today with a range of geographies in Asia (Vietnam, China, Phillipines), Central/Eastern Europe (Poland, Ukraine, Russia) and South America (Argentina, Brazil and increasingly Ecuador, others).

Asia is increasingly at a disadvantage - who wants to stay up all night to talk to the development team when more geographically desirable sites are available for the same economics. Central/Eastern Europe was the first beneficiary of this trend. Outstanding higher education with a strong work ethic have more often times than not resulted in much better results than the same in India or other countries in Asia. The latest trend (and hottest one...) is the trend to Latin America. The outsourcing segment is booming in places like Argentina and this development is the brightest spot in that country's economy (currently growing at more than twice the national average). It is neubloc's belief that the ultimate solution will wind up combining development locations in Central/Eastern Europe with those in Latin America so as to fully implement a "follow the sun" development model which is both rapid and very cost effective. We are just in the beginning of this cycle although it has taken hold very quickly.

As a final note a white paper like this cannot be complete without addressing the latest economic upheavals and their resulting impact on global third party software development.

The softening economy is only accelerating a process that was already in place. Among established software suppliers that were profitable there will be a renewed push toward "belt tightening" while at the same time no let up in the competitive pressure to get product out quickly. For many of those that were "on the fence" regarding outsourcing they will be faced with a zero degrees of freedom problem.

They will need to outsource to survive - no choice here. For early stage companies (especially angel stage) there has been a lack of capital since the tech bust of 2000. For many of those companies there was no choice but to use a "virtual engineering" team both because the days of recruiting developers for "sweat equity" were gone and also because of the inability to raise sufficient capital to get to product any other way. Once again for those on the fence this new shrinking of capital will only accelerate the underlying trend.

There is one additional wrinkle to all this - one that my own company is heavily investing into. As VC's and angel investors are telling their portfolio companies to "hunker down" for the upcoming storm, these companies will be looking to shed expenses quickly. The mantra has become "get profitable right now." Given that there are few ways to reduce the cost of sales and marketing the obvious place would be to focus on their single largest expense - human resource cost associated with R&D. As a result both VC's and angel will be willing to allow their development partners to participate actively in terms of accessing equity in exchange for development services. There has been a resistance to allowing this type of equity for service especially among institutional investors but increasingly this is the best single way to preserve cash in an environment where cash is everything. Services for equity is an effective way to reduce the burn in these companies EVEN LOWER than simply going offshore. The services company benefit by developing a portfolio of equity which in turn will have value upon exit, the product companies benefit by dramatically lowering burn and the VC benefits by extending the times between capital raises for its portfolio.

*To learn more about how we can give you 'peace of mind' please contact:*

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