



Software Outsourcing

The Whys, Whats and Hows



Goldstone

Goldstone Technologies



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EXECUTIVE SUMMARY

Outsourcing is an old phenomenon. Software outsourcing is a relatively new concept, however the explosive growth in software outsourcing is a wholly new business opportunity having great-untapped potential.

This exponential spurt in software outsourcing activities can be partly explained by "economics". Another driver of growth is the shortage of cost effective skilled personnel.

The Indian software industry with its vast labor pool of skilled software professionals is in a unique situation to reap the benefits of this global boom in software outsourcing activities.

This white paper will address the attempt to define the changing nature of software outsourcing, its benefits and pitfalls and some of the problems frequently encountered in outsourced environments. In addition this paper shall also dwell on the client / vendor relationship and end with the latest incarnation of software outsourcing – remote software development across the globe.

Finally this white paper attempts to answer questions from both sides of the fence and is meant as much for the outsourcee as it is relevant for the outsourcer.

INTRODUCTION

Mainframes, Distributed computing, Client/Server, Diverse application development environments, Countless desktop packages, Endless upgrades, E-commerce. And the list continues to grow everyday.

IT managers constantly face new challenges while navigating through the shifting crosswinds and changing currents of today's IT environment.

Senior managers are looking for new ways to remain competitive, increase shareholder value and quickly integrate newly merged/purchased companies and technologies into their businesses, They are now leading their IT managers towards a new way out – literally – through the sanity-saving assistance of outsourcing

From 34 years ago, when Ross Perot is credited with starting the modern outsourcing industry, the industry has grown to a worldwide \$99 billion size with a projected annual growth rate of 12%. In this the Enterprise application outsourcing market is currently at about \$8 billion and expected to grow to \$45 billion by 2002. This is largely due to the proliferation of the Internet and the boom in the e-commerce / e-business markets.

However Software Outsourcing is far from a simple "farm it out" process. A successful outsourcing process encompasses broad managerial and organizational issues. In the end it is as much dependent on the Client as on the capability of the Vendor.

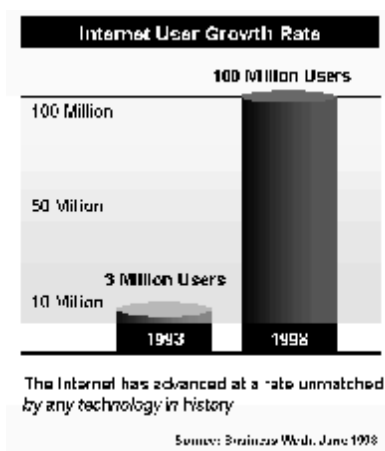
WHAT IS SOFTWARE OUTSOURCING?

Outsourcing has changed since the early days of the industry in the 1970's when outsourcing relationships were essentially time sharing arrangements and/or facilities management. Today the scenario is different. According to Varum Grover " The nature of outsourcing has changed from facilities management and time-sharing to functional outsourcing " .

This statement reflects the changing nature of Industry and their perception of IT/MIS. Unlike the past, where the IT or MIS department in the company managed all the computer needs, now all the computing is done by the end users. These people are not IT savvy and require support in various forms. Instead of creating support groups leading to other issues, many companies are preferring to outsource the IT functions.

Global competition is yet another imperative for software outsourcing. In order to meet the challenge companies worldwide are focusing their resources on their core competencies as a business strategy, to compete globally and increase profitability into the new millennium. As they attempt to focus on their core competencies many are outsourcing various aspects of their in house operations. The initial driving force behind this decision is typically cost reduction and organizational restructuring.

The rapid proliferation of the Internet is also driving the growth in outsourcing



A recent report from Gartner considers that an organizations IT functions have "fundamentally transformed with selective outsourcing becoming the norm"

Software Outsourcing can range from buying a software package to outsourcing all software development, support and data center operations

With more and more businesses getting on-line and e-commerce taking of in a big way, companies are concentrating on building up "Domain Knowledge". They are outsourcing software application development and software maintenance to achieve the same.

According to a study conducted by Dun and Bradstreet corporation:

- (1) Information services are increasing its use of outsourcing faster than any other industry with a planned growth of 50% forecast for 1999-2000.
- (2) IT represents 30% of all outsourcing expenditure.

Software outsourcing has matured from an environment of solutions solely motivated by cost reduction pressures to one in which the outsourcing decision is part of an overall corporate strategy to improve delivery of services that impact a company's bottom line. Outsourcing can improve strategic business planning, company focus and accelerate the benefits of re-engineering. By outsourcing an organization can reduce its operating costs and increase the money flow for capital investment in its core business.

Companies are outsourcing the entire gamut of MIS operations such as:

- ▶ Application development
- ▶ Client/Server
- ▶ Consulting
- ▶ Desktop systems
- ▶ End-User support
- ▶ Maintenance /repair
- ▶ Mainframe Data Centers
- ▶ Networks
- ▶ Training

A July 1997 report by the Gartner Group [ESP: SPA-OUT-265] revealed that organizations with revenue between \$500 million and \$3 billion outsourced anywhere from 23 to 30 percent of their permanent IT functionality. That figure is expected to only increase,

Outsourcing is not an easy solution. Considerable time and effort must be spent by an organization to maximize the benefits of the outsourcer and to ensure contract compliance. Management issues and not technical issues take a dominant role in outsourcing. As a company's technology needs are dynamic, the nature of its relationship with its outsourcer is also dynamic and needs to be managed like any other business process.

An emerging trend over the last couple of years has been Offshore Software Outsourcing to Asia. This implies that U.S. or European companies subcontract their software application development, software maintenance or any aspect of their IT operations to a vendor located outside the continental United States or Europe, generally to countries such as India, The Philippines or China.

The drivers for this trend are many. Primarily it has to do with the substantial cost reduction possible through the use of local professionals.

Initially the trend was slanted towards mere "Body Shopping" or "Contract Programming". As communication technologies improved and the Internet grew more ubiquitous, companies found "Offshore" outsourcing to be cost attractive. India is emerging as a major center for "Offshore Software Development".

WHY OUTSOURCE?

In a survey of business leaders, the major strategic benefits of outsourcing that were listed were:

- ▶ It allows companies to focus on their "core competencies"
- ▶ Helps companies achieve greater efficiency without having to invest in people and technology to achieve that efficiency
- ▶ Helps companies become more profitable; leading to improvement in shareholder value
- ▶ Helps companies move up the value chain by freeing employees to concentrate on acquiring "Domain" knowledge
- ▶ Helps reduce operating costs
- ▶ Helps gain access to world class capabilities
- ▶ Helps in taking care of functions difficult to manage and/or provides for resources not easily available internally
- ▶ Makes capital funds available

The above are commensurate with the findings of the Yankelovich study in which, on a global basis top decision makers cited the following as principal strategic benefits of process outsourcing:

Achieve cost reduction	79%
Focus on core business	75%
Improve service quality	70%
Maintain competitive edge	67%
Increase shareholder value	62%
Obtain outside expertise	61%
Having access to advanced technology	59%
Achieve revenue enhancements	58%

A key benefit of Software outsourcing is substantial cost reduction of the outsourced commodity. This is especially true in the case of U.S. and European companies outsourcing their software development and maintenance to Asian countries such as India. In some cases this results in a cost reduction of 60%.

A final benefit of software outsourcing is that the outsourcing organization may be able to more closely align the outsourced services by allocating them to the consuming process or departments on an activity basis.

While IT managers might once have looked upon outsourcing as threatening, they now view it as a means of simplifying and managing IT complexity.

THE SOFTWARE OUTSOURCING PROCESS

Software Outsourcing replaces or is equivalent to the internal process of software development. The only difference is that you hire the team for the singular purpose of developing your product. With outsourcing, it gives the client the ability to access experienced team based resources without the long-term commitment of permanent staff.

A software outsource partner will translate a product requirements document into a full-blown specification. This includes a complete functional specification with user interface, screen designs and report designs, algorithms and logic flows. From the functional specification, the technical specification will be derived along with project tasks list, milestones deliverables, project cost schedules and test plans.

The development process then begins. Software must be developed that conforms to the functional and technical specifications with predefined milestones deliverable on a predetermined schedule. Each milestone or release of the software must be functional with measurable performance to provide convergence to a successful completion. Each of these milestone releases must have sufficient quality assurance testing to ensure a reliable product.

Finally, the product is functionally complete. It must now go through extensive testing to make certain that the application conforms fully to the functional requirements. The application must have all the bugs driven out, must be performance tuned and be tested with the required hardware configurations.

Goldstone Softech has put in place a robust yet flexible software outsourcing methodology starting with the initiation phase and going all the way to acceptance testing.

ISSUES IN SOFTWARE OUTSOURCING

In spite of the wide diversity of software outsourcing services and processes all these relationships have remarkably similar characteristics:

1. The relationship in the majority of the cases is "on-line" or close to it due to the time critical nature of the industry
2. Physical contact between the outsourcer and vendor may not exist
3. Deadlines assume critical significance
4. Service quality is a must for success
5. Partnership assumes paramount importance in the outsourcing relationship

A key component to a successful outsourcing relationship is the ability to communicate and document performance results using meaningful business oriented metrics. Unlike the other business functions, metrics for software outsourcing contracts have been difficult to document and quantify. Leading edge companies who are pursuing and offering outsourcing arrangements are taking aggressive steps to remove the ambiguity from software outsourcing contracts. Organizations such as Goldstone Softech are utilizing software metrics based on function points, defects, problems and effort to document performance. The resulting metrics provide the basis for contract negotiations, monitoring results and payment.

Not surprisingly one of the major factors contributing to a poor outsourcing relationship and leading to bad management is poor information flow.

Below are some common issues arising in any software outsourcing relationship:

Establishing the baseline

Managing customer / vendor relationship

To be discussed in detail later.

Addressing change / flexibility

“If a contract is too rigid in specifying the performance targets, changing circumstances due to new technologies and business goals are bound to make these targets obsolete” Datamation, March 1996. Planning for change is essential to the success of any outsourcing engagement and must be reflected in the contract. Today’s outsourcing world demands flexibility and continuous improvement.

Contractual issues

Software outsourcing deals by their very nature are contract intensive. In many situations, the contract will determine the nature of discussions and negotiations – with respect not only to the legal terms, but also the very structure of the outsourcing relationship. Without a contractual framework to support it, an otherwise successful strategic outsourcing can be in serious jeopardy

Effective communication

There must be a well-conceived structure for frequent and open communication between the customer and the outsourcer. The parties must spend ample time structuring communication mechanisms. Contract boilerplate will not suffice. Open communication may extend to the level of “open book accounting”. The outsourcer must understand the broad information technology objectives and needs of the customer. The customer in turn must understand the full range of service offerings and potential for value added services offered by the outsourcer. Goldstone Softech believes that proper and complete communication is the prime ingredient necessary for the success of any offshore project. This assumes critical importance in view of the “long distance relationship” between the outsourcer and the vendor. More often than not a poorly defined communication structure leads to ill-defined project specifications, the end result being wasted man-hours. This translates into cost over runs and bad blood between the outsourcer and the vendor.

To overcome this hurdle, Goldstone has a well-developed communication methodology. Developing any prospective relationship into a firm commitment is split up into 3 stages:

Introductory

This involves contact being made at any one level and exchange of preliminary information including parameters for discussion.

Negotiation

Here all Techno-commercial issues are sorted out. The methodology to be adopted will be discussed and finalized. The communication protocols and the escalation process are also defined.

Closure

This stage culminates in the signing of the contract.

At all the 3 stages Goldstone Softech will be represented by ONE primary point of contact. This would generally be an account executive. Similarly Goldstone expects the Client to designate ONE individual who will be the primary point of contact for all Goldstone employees. The rationale behind this is to ensure fast and effective communications.

The actual technologies involved in data transfer are FTP & dedicated satellite links.

6. **Validating results:**

This involves testing at all levels from program to enterprise level. Testing is both Unit Testing and Application Testing down to actual deployment.

To summarize for software outsourcing to be a complete success the factors to be addressed are:

1. Understanding company's goals and objectives
2. Outsource for the right reasons
3. A strategic plan and vision
4. Using a methodological approach
5. Selecting the right vendor
6. Ongoing management of the outsourcing relationship
7. A properly structured contract
8. Open communication with affected individuals or groups
9. Senior management involvement and full support
10. Careful attention to personnel issues
11. Near term financial justification
12. Realizing that outsourcing is not all or nothing
13. Use of objective performance criteria
14. Use of outside expertise

THE ROLE OF THE VENDOR IN THE OUTSOURCING RELATIONSHIP

It is accepted beyond doubt that selection of the right vendor for the right reasons and for the right job is the essential for any outsourcing relationship to stand even a remote chance of success.

In today's outsourcing relationship, the customer looks at the vendor as a long-term asset that is a source of ongoing value to the company. As an asset, time and resources are dedicated to managing the relationship and maximizing its value. The customer's resources are held accountable for extracting value from the outsourcing relationship. Customers and Vendors must behave as integrated supply chain rather than win/lose adversaries.

The critical elements that outsourcers should look for from an outsourcing partner are as below:

1. The organization must have a critical mass of resources that can support the peaks and troughs of the development effort. Get a company that is large enough to both supporting the project as well provide insurance from being dependent on a single individual. With its 150+ team of professionals and growing, Goldstone Softech is capable of executing projects varying in size from \$10,000 to \$5 million or more.
2. The organization must have a solid management team. Successfully outsourced projects require much more than just good software development; they require even better project management. With a management team having 100's of years of cumulative experience in the fields of software development and software maintenance, Goldstone Softech has the solid foundation necessary to deliver reliable and cost-effective IT solutions and services on time every time.
3. Work with an organization that understands the importance of quality assurance testing as an integral part of the development process. The organization should prepare a complete test plan for the product and should have dedicated testing resources and utilize the most state of the art automated testing tools. Goldstone believes in the philosophy of quality has defined the process and procedures to imbibe the spirit of quality in all employees.
4. The organization should be responsive.
5. *Open book pricing. Goldstone has a flexible pricing matrix for its clients. It can perform a fixed price, T & M, or a combination of both based on the project type.*
6. Additional value added capability. Goldstone's quality policy is, "We are committed to deliver reliable, cost-effective IT solutions and services exceeding the customer requirements on time, through continuous process improvement, with the involvement of our people"

7. Cultural match. Goldstone strives to adopt the work ethics and processes of its clients to ensure a homogenous work environment between the clients internal IS department and Goldstone's development centers.

OUTSOURCING CONTRACTS

As outsourcing takes hold as a powerful, strategic, business management tool, the contract agreement between parties grows more important and complex than ever before. When conducted thoroughly and carefully, the contracting process for risk and reward in an outsourcing engagement emerges as a time for mutual education of business needs and culture. It is also a time for building relationships that will potentially grow into long-term business partnerships.

Contracts can be defined as either "tight" or "loose". Tight contracts are loaded with legalese and leave little wiggle room. Loose contracts on the other hand include enough flexibility

An outsourcing contract may last for a long time, and both the organization and the vendor must understand how the relationship will be managed throughout the life of the effort. Some of the important contract considerations are:

Terms of the agreement

The trend is toward a shorter-term renewal option. Managers should ensure that the contract stipulates that a renewal of the contract occurs only if a renewal notice is sent.

Minimum services levels

It is vital that the contract specify as accurately as possible the services to be provided in the contract.

Ownership & confidentiality of data

The agreement must specify that the customer retains ownership of the data it submits to the vendor and that the data is kept strictly confidential.

Warranty

Managers must ensure that the vendor warrants that it will provide the services as defined in the agreement and that it will accommodate a specified increase in requirements.

Incentives

The contract should preferably provide the vendor with an incentive to perform. Such incentives include guaranteed savings, shared benefits/risks, profitability index, teaming arrangements and cross-marketing opportunities.

Disclaimers

These have to be part of any contract. Ensure that a disclaimer does not void the warranty and indemnity sections.

Performance measures

A sound contract must include performance measures, because without them, there are no objective criteria for managing the outsourcing relationship. It helps considerably to develop such measures long before the contract so that a history of effective measures can be used in the negotiations.

Anticipating change

In the time critical world of software this is an important pre requisite for any contract. Contracts should accommodate cycles of demand that require an adjustment in services.

Successful software outsourcing starts with the contracting process. Clear channels of communications that encourage new ideas being brought to the table, along with rewards for those new ideas and revenue opportunities – all are part of the process. The contracting process is educational and can be seen as a road map to a successful, ongoing relationship

To paraphrase Julian Millstein, Partner, Brown, Raysman Millstein Felder & Steiner LLP, "If the contract is to be a road map, be sure that it describes the right highway. There is no worse situation than when; three months into a deal, the parties are finally required to see what remedies they have about a particular dispute, and they discover that the contract bears no resemblance to their current view of the deal"

Three years ago, e-commerce was just knocking at the doors of the IT marketplace. Then the thinking used to be, "We are a company with a Web site and along with that Web site exists a range of marketing options that include an annual report, a marketing brochure, a sales brochure and product literature." Nowadays the thinking is, " We can no longer be a company with a Web site, we have to be a WEB COMPANY"

Fueled by this thinking, IT outsourcing has entered a phase of exponential growth and ventured in to uncharted territory in terms of the variety of services offered. Forester Research, an IT consulting company, found that 60% of Fortune 1000 companies outsource to two or more Web development shops. Programming (coding and scripting) is the number one service being outsourced. This function accounts for roughly half of the software outsourcing pie followed by Web design, development and management, systems management (hosting and consulting), and Web strategic planning, respectively. Another trend is that outsourcing partners, this time around, are typically playing a more central role in directing their customers business operations.

According to J.P. Frenza, Businesses are no longer hiring outsourcers to put ten pages on the Internet. That is something that can be done in-house. What businesses are doing now is hiring someone to come in and completely change the business. " It doesn't really matter what product you are making or selling; in the future you will be a Web company," he says. " Nobody thought that anybody would buy wine online, but now Wine On Line is commonly accepted. No one thought that people would trade stocks and marketing services in the financial industry online and now half the people you meet have accounts with online brokerage accounts. Nobody ever thought that people would buy airline tickets online; now if you don't buy your ticket online you are wasting time and money. It is permeating every market. If you're in business you have to figure out how to survive in this medium."

Today high-speed access to company data via corporate intranets, extranets and the Internet has become a strategic weapon. IT outsourcing- specifically Web outsourcing – is no longer seen as a line item cost reduction. In the expanding information age, Web outsourcing is about staying competitive and staying alive in a Web based society.

Businesses that have incorporated the Internet into their operations have realized that it takes more time, expertise and know-how that they have in order to be successful. Internet hosting companies have been created to help manage mission critical business operations for less than it costs to staff up & handle them in-house. This is evident among the top 100 Web developers that all have really good Web design. They understand that it is not the front side but the backside – the technology behind the design, the interactivity, the commerce and the customer service – that makes the difference these days. They have also outsourced these to specialists thereby creating a whole new area of outsourcing activities.

We can say that the Internet is fundamentally changing the way a company does business. This change has resulted in an explosion in Web outsourcing services. Web outsourcing is all about reliability & affordability along with the mantra of specialization.

To look at the future of e-commerce and the role outsourcing is expected to play is to understand the excitement in a "sky's-the-limit" environment. E-commerce and outsourcing are natural partners in exploring the promise of tomorrow.

Goldstone Softech has recognized the importance of this "revolution" in the way business is conducted and has responded by setting up a dedicated Web-centric development teams comprising of professionals trained in the latest web technologies and backed up by superior infrastructure resources. Goldstone Softech is also in the advanced stages of bringing out an e-commerce product.

With its large pool of software professionals, India has a lot to offer in terms of “Software Outsourcing”. With the inherent advantages available in India, companies can look forward to establishing dedicated development centers to meet your strategic IS needs. Also, for organizations that have periodic peaks and troughs, outsourcing to India makes a viable business sense.

Goldstone Softech recognizing these facts has developed an India Development Center for our clients where Goldstone Softech maximizes the strengths of innovation and hard work inherent in Indian professionals, combines them with superior training and technical facilities, and translates all the above into reliable cost-effective IT solutions and services exceeding the customers requirements on time, through continuous process improvement with the involvement of our people.

The major benefits of an IDC are:

- ▶ Flexible Staffing – with dedicated core teams.
- ▶ Dedicated communication facilities – data/voice/video
- ▶ Seamless Integration – IDC follows your standards, procedures and processes
- ▶ No hidden costs – long term contract would define all cost factors
- ▶ Access to large pool of skilled resources
- ▶ 24 * 7 operations (if required)

The India Development Center is defined by Goldstone Softech as a “Mirror” site. In the IDC the client environment is replicated. The IDC will have dedicated computing facilities, software professionals and act as a “virtual” extension of the client’s internal development team. The center is linked to the customer’s development center through a leased data / voice /video satellite link. The entire operations of the IDC will implement the clients work ethics, IS standards, Programming conventions and practices and Communication protocols. Goldstone Softech provides all administrative, managerial and financial support – at no additional cost.

The India Development Center has been set up with “best” practices adopted in all areas of the outsourcing relationship.

Security is an important aspect of Goldstone’s communication and office infrastructure. Controlling access to all computer systems and disabling all floppy drives maintain physical security. Goldstone fosters a company-wide awareness about the need for protection of intellectual property rights and sensitive computer information. For some projects, Goldstone uses sophisticated data encryption devices.

In addition to its skilled professionals and superior infrastructure the India Development Center has implemented strategies for:

- ▶ Effective communication
- ▶ Single point of contact relationship
- ▶ Solid management team
- ▶ Quality work
- ▶ Responsiveness
- ▶ Pricing transparency
- ▶ Value added services

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