

# Outsourcing: A discussion of the pros and cons

## Introduction

Outsourcing of Informatics services can be referred to in many ways today: some call it Facilities Management (FM), or Application Service Providers (ASP), Web Hosting services, extended System Integration Services, but most commonly it is referred to by the “catch-all” name of “Outsourcing”.

In the broadest sense, it describes the action of passing computer operating and sometimes development/maintenance responsibility to an outside firm who specializes in providing that service, for money, and is prepared to deliver to a Service Level based contract. A Service Level based contract defines the measurement of the required service levels (reliability, expandability, responsiveness, security, etc.) rather than just defining the basis for pricing the service to be delivered. Corporations choose outsourcing today for a number of reasons, but an abiding one is that it frees up management resources for the primary function and focus of the organization. Other reasons will be described a bit later.

We continue to see more and more outsourcing deals being made, and are now occasionally encountering outsourcing requirements at the local government level (City/County), hence this “topic” presentation. We encourage interested readers to pass their reactions and opinions to this article back to us.

## What is Outsourcing?

Outsourcing actually began and was quite pervasive in the early days of mainframe computing (1970-1985), when computers cost millions of dollars and needed very expensive power and environmental controls to run. Time sharing, introduced in the 70s, allowed customers to remotely access large shared mainframe computers over phone lines using card readers, printers and teletype-like screens. By paying for metered utilization, it made computing more widely available, instead of just being restricted to the largest corporations and government agencies. However, the availability first of mini-computers and soon after of PCs and networks pretty much closed down all of the time-sharing service bureaus by the end of the 80s. PCs did more, cost a lot less and did not keep costing by hour of usage either.

Outsourcing resurrected again in the mid to late 90s; most outsourcing then involved selling off the corporation or government's computer facility / facilities along with associated operational and sometimes development/ maintenance staff to the Outsourcer under a typically 10 year duration contract. That appeared to accomplish a number of things:

- It passed the responsibility for the legacy (usually mainframe-based) applications and the related staff to the outsourcer, to manage a transition over time to a newer set of systems and architecture;

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- It passed the responsibility (and balance sheet liability) for retraining or redundancy of the legacy staff to the Outsourcer who was NOT encumbered with union agreements, pension liabilities, etc. so it immediately improved the selling corporation's bottom line.
- And, it supposedly freed the corporation's management to concentrate on their core business rather than the computer one they were not very good at (as noted above).

A great many companies and Government agencies executed this sort of outsourcing agreement prior to 2000. Year 2000 was also a "tick-tock" motivator, too. In retrospect, many of those outsourcing agreements did not turn out as expected, and many have been abandoned or re-negotiated to better suit today's needs

At around the same time period, many organizations realized that, when they converted their legacy mainframe based custom administration applications (personnel, payroll, accounting, finance, manufacturing, sales analysis, accounts receivable, payables, etc.) to application products from Peoplesoft, SAP, ORACLE, Seibel, etc., it often made sense to actually contract out the hosting and support of those applications to a supplier who specialized in delivering payroll, personnel, accounting, etc. services using those application products. It was also a lot simpler to define a service level agreement for running a commercial product than for running a mix of your old home-grown applications. That usually also transferred the development and maintenance responsibility associated with the application products being used to the outsourcer or ASP too. These outsourcing deals have enjoyed a lot more success, and continue to grow in popularity. Some variations saw the organization actually retain the hosting responsibility, but had the outsourcer manage and support the application product on the customer's computer site.

Web hosting represents another popular outsourcing opportunity today. It requires a unique "plant", unique and new set of skills and was, at least initially, sufficiently removed from any traditional applications that it was perceived as an ideal outsourcing candidate; many, many organizations made that decision and many websites are actually managed by outsourcing firms today. However, as e-commerce actually moves to the web today, the interfaces back to legacy order entry systems, parts supply components, inventory systems, customer relationship components, etc. can cause confusion and uncertainty since concerns like security, reliability, legal liability, etc. are not easily resolved given such a split responsibility along with the technical obscurity involved in assigning (and auditing/enforcing) said responsibility.

A number of industry "clearing houses" for web based e-commerce also surfaced in the late 90s (chemicals, steel products, automotive, grocery, pharmaceuticals, etc.) to facilitate ordering, invoicing, delivery, and other 'just in time' transactions and over time these industry "clearing houses" can be expected to add additional value-added services and information pools and become regional information resources for specific vertical markets.

Last, many organizations today outsource the support and management of their PCs, related desktop software and networks, printing, servers, etc. largely because of support quality problems and cost over-runs that they have experienced and because the outsourcing firm will usually charge a flat monthly rate by the number of desktops per location being supported. The need for reliability (would be nice if e-mail stayed up), predictability and control of the associated lost user time (who are actually being paid to do something other than trying to print or store things on the server) and security (viruses, worms, disclosure risk or at least uncertainty), etc. drives many organizations to outsource these responsibilities.

## Motivating Factors

Many of the initial and obvious motivators were described above. However, there were and are a number of less obvious but no less pressing motivators to outsource involved today.

Computer applications today are much more critical to the organization's minute by minute operation than they were 10 years ago. Information workers (and most police workers can be called information workers without a stretch of the imagination), simply cannot do their job effectively today without the supporting information systems. If the system is down, the MDTs and mobile workstations don't work, or if e-mail or NCIC/CPIC access is down, productivity crashes. Our paperless operation clients are hit even harder. So, the attention to and critical value (and related cost) of assuring non-stop reliability, "hardened" sites, disaster back-up facilities, closely monitored security, assured integrity, etc. can be many times what it was a few short years ago. Most corporations and agencies face similar challenges today. Outsourcers often can present a most credible and compelling argument that they can deliver to such high availability objectives better and at less cost.

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The more application computer services become all pervasive and natural to use (like the telephone), the more technically complex doing that becomes and the more skilled the related support staff have to be. The reliability and sensitivity (especially for 7x24 operation like police agencies have) demands expensive site support and security that most organizations would sooner share than build (and fund) by themselves. That presents another advantage for outsourcers. Hardened facilities are notoriously expensive to construct and manage.

Technical staffing also can pose challenges to organizations running the “lifeblood” systems of the organization. Certainly, in the recent “dot-com” boom, many commercial organizations and government agencies found it difficult to attract and retain the sorts of technical skills and expertise that such systems need to stay effective. Even today, these skills are in scarce supply and often organizations and agencies can only afford to have one person with a specific expertise, so when that person leaves, they are extremely vulnerable to problems. Because outsourcers specialize in running and supporting such systems for many, many organizations, they have the scale to maintain adequate depth of technical resources so that routine turn-over of such staff does not compromise their service level.

Such resources as we have described are expensive, so sharing the resources (hardened site, very powerful servers, capable and proven technical staff, high speed network connections, specialized support software for system and network management, back-up facilities and disaster /recovery sites, security layers, etc.) can make a lot of sense and reduce the cost burden associated with maintaining the expected and required service level.

In some instances, such as supply purchasing, reservation systems, ordering by industry (chemical, medical, retail, etc.), the industry information and access sharing enabled by the outsourcer becomes the primary motivation to use them. Potentially, police and intelligence information sharing may become such a motivator to public safety agencies to selectively outsource in the near future.

Public agencies and monopolies (like utilities, etc.) typically have “capped” budgets and can find it extremely difficult to add technical support staff proportional to the rate at which the agency is becoming dependent on such staff. Technology and dependence on technology seems to evolve much faster than government budgets can react to it. Government employees represent a long term recurring budget burden that is typically tightly controlled. Some agencies then strive to off-load the workload that they can. This may be PC support, network management, operating system and database support (system software support) and even increasingly application product-related support. The latter expectation could impact how Versaterm relates to our clients, so we are sensitive to it.

## Obstacles to Outsourcing

The pressures to outsource are NOT all one way; there are almost as many reasons NOT to outsource mentioned today.

The most recurring and obvious one is related to control and dependence; most organizations do not create such an operational vulnerability, exposure or external dependence on a third party organization casually. Some simply will not consider outsourcing for just that reason. Even with a rigorous contract, the available “remedy”, to exit the contract, can pose perceived risks of disruption that are unacceptable. You have to have confidence in your ability to contractually constrain and then manage such a contract (but more organizations are reaching that state every year).

A variation of the above relates to the duration of such contracts. Making a major outsourcing transition represents such a major investment to both parties that contracts tend to be for at least 7 years and often ten. However, that is a long time in today's economy to make such commitments, and raises concern about the cost to get out if things change in a material way in the future. The challenge is to be able to write a contract sufficiently specific to protect both parties' interests while being sufficiently flexible to be able to adapt to changing realities; ten years is an awfully long time. The alternative could result in a captive customer or a “stiffed” outsourcer, and neither choice is pleasant for either party.

Staff associations and unions have seen outsourcing being used in the past to abandon staffing responsibilities and liabilities so they typically aggressively resist outsourcing actions, and serve as a formidable obstacle to management who are considering outsourcing. The resulting costs to satisfactorily resolve such staffing issues often are so large that they off-set any savings anticipated from outsourcing.

Security of sensitive information and processes can also pose obstacles to outsourcing. When legal or commercial damage could result from disclosure or corruption of information, outsourcing can be perceived as adding further vulnerability to such exposure and thus discourages outsourcing.

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On the other hand, many banks and financial institutions, for instance, rely on almost total outsourcing today, and claim that having a properly constituted contract with an external outsourcing firm actually can deliver better security than they could deliver with their own staff. And, the return on information corruption of bank-related transactions could obviously be very lucrative for the employee so tempted.

Probably the most recurring obstacle is that few organizations are sufficiently confident to believe that they can define a service level agreement and associated contract that is broad enough, precise enough, defines thresholds, measurement techniques and remedies sufficiently precise yet provides enough flexibility to properly look after the company/agency interests for such a long duration. Typically, such agreements today provide periodic "escape roads" to keep both parties realistic and honest throughout the agreement.

## What might this mean to Versaterm's Customers?

We find today that most customers are prepared to pay Versaterm to send our staff out to handle migration to next releases and to provide some face to face review of the changes to the new release (update training). Usually, Versaterm staff are engaged to update the system software (the operating system, database management package) and to configure new servers, too. The passing years have seen the software expand, the interfaces multiply and the organization's dependence on the systems increase to now justify the insurance premium of having Versaterm experts handle or support such potentially traumatic transitions.

We increasingly are being asked to address day to day management and trouble shooting of network, security and interfaces also, and that can be tougher to successfully do without an on-site presence. Doing this poses us with cost and capability challenges. However, we realize that many of our customers have difficulty taking on-going responsibility for these related "plant" issues, so we do our best. We are exploring whether this growing situation is a trend, or a temporary aberration, because for us to address it involves substantial investment and change of scope, so we'd appreciate any observations that you could give us in this regard.

Smaller clients tend to be under the most technical support pressure. We try to guide a constrained implementation for them, to avoid over-stressing their technical support resources, but the department's natural desire for wireless mobiles, interfaces to County, State and National networks, Court systems, etc. over time quickly exceeds the initially cautious constraints, and soon stresses their usually limited technical support capability. We should note though that even some of our larger clients have limited technical support and a growing technical workload, so also seek to off-load any support responsibility that they safely can.

For Versaterm to provide the equivalent of on-site technical support, we need higher bandwidth, secured and validated continuous server and network access (usually via high speed VPN-enabled drop) and remote management software would have to be installed on the servers and some workstations to enable the remote operation capability needed. Beyond that, we'd still need to have an arrangement with a local support provider to come on site at our request when remote diagnostic and manipulation capabilities just can't meet the needs. As noted earlier, this represents a substantial expansion of the services that we offer today.

One potential alternative source of technical site support for our customers, especially the smaller ones, is to establish a shared-site consortium, using the Multi-jurisdictional product extensions to host a number of agencies with one facility, one technical support group, etc.; that permits the proper back-ups, hardening, etc. and several of our clients have selected that approach. Collectively, they each benefit from the aggregate budget allowing them each to afford service levels normally affordable only by the larger agencies. In that case, the police governance body essentially becomes the outsource supplier. This approach also provides the added benefit of regional information sharing, too. In this post 9/11 world, that information sharing benefit may very well be a decisive factor for our users. However, the governance challenges, for funding, priorities, etc., are not to be taken lightly, as many agencies can attest. The E-Comm operation in the Vancouver area is an example of such a consortium.

## Conclusion

Basically, it is probably too early for us to offer an outsourcing service. As noted, outsourcing has waxed and waned in the past. However, this time the operational dependencies and the people and facility resources needed to meet service level requirements may just be persuasive. We would value your thoughts and opinions about this issue.

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