



B E R B E E[®]

An Insider's Guide to IT Outsourcing

September 2005

5520 Research Park Drive • Madison, Wisconsin • 53711-5377

Phone 608.288.3000 • Fax 608.288.3007

www.berbee.com

Copyright © 2005 Berbee Information Networks Corporation. All rights reserved. This document contains copyrighted 3rd-party material.

If you would like more information, please contact your Berbee Account Manager.
If you do not have a relationship with Berbee, please contact us at 608.288.3000 or talkwithus@berbee.com.
Ask for a member of the Data Center sales staff.

Contents

Why Outsource?	4
IT Outsourcing Options	4
Potential Benefits of Outsourcing	5
Lowered Costs.....	5
Focus	5
Speed to Implementation	5
Quality of Service	6
Access to dedicated resources	6
How To Choose A Service Provider.....	7
Moving Forward	9
Before the Selection/RFP Process	9
During the Selection and Negotiation Process.....	10
After Contract Negotiation	11
Conclusion.....	12
Appendix A: Data Center Best Practices Checklist.....	13
Appendix B: Potential In-Sourcing Costs.....	18

Why Outsource?

Do you currently:

- Process your payroll internally
- Maintain internal legal resources
- Write your own proprietary software for all of your operations
- Maintain your own delivery fleet
- Supply your telephone dial tone
- Own, operate and maintain all facets of your facility
- Manufacture your own electrical power

For most companies, outsourcing has been a key business strategy for some time. Whether you realize it or not, some or all of the above functions are being outsourced by your company. So, the issue is not whether to outsource or not, it is to determine which functions you wish to keep in-house for strategic and other reasons and which are potential candidates for outsourcing.

This guide is designed to give you a brief overview of IT outsourcing options, strategy, best practices and other considerations. It offers advice for the selection, negotiation, and management phases of the outsourcing relationship. This guide is not intended to be an exhaustive guide to all outsourcing issues. Rather, our intent is to provide guidance, especially for the small and medium business, for whom IT outsourcing can be a very valuable tool.

IT Outsourcing Options

IT outsourcing is not an all or nothing proposition. You have options when it comes to IT outsourcing. These options include:

- **Outsource nothing.** This is a viable choice for few if any IT organizations.
- **Outsource “commodity” services.** These are types of services that, although important, provide little strategic value to the organization.
- **Outsource to improve time to market.** When moving into new technology, it is often faster to hire external firms to launch the project, with a planned transfer of skills to internal staff.
- **Outsource high-demand skills.** Examples include security management, database management, and email administration.
- **Outsource IT trouble areas.** These are areas where you have been unable to develop best practices.

Your choice as to what and how much to outsource should be based on the particulars of your situation.

Potential Benefits of Outsourcing

There are many potential benefits to outsourcing. The key word is *potential*. Actual benefits are highly dependent on your sourcing strategy, contract negotiations and Service Level Agreements (SLA), service provider performance and capabilities, and your ongoing management of the provider. Choosing a service provider to outsource critical services is a big step, but it is one that can benefit your business greatly if the proper planning and relationships are in place.

The potential benefits of outsourcing include:

Lowered Costs

These include both reduced capital expenditures (electrical power capacity, monitoring and reporting hardware and software, backup and recovery hardware and software) and reduced ongoing expenditures (extra Internet bandwidth capability, operations support staff, training and hiring). Return on Investment (ROI) can be as much art as it is science, but it is possible to generally evaluate the costs of in-sourced vs. outsourced solutions before an outsourced contract is executed.

IT outsourcing may not only lower your costs, it can also make your costs more predictable, which can be just as valuable. Mature service providers can provide fixed costs for ongoing services, implementation services, and even migration services. This can be a very useful tool when managing to tightened IT budgets.

Focus

IT outsourcing contracts allow you to focus on your strengths and what is unique to your business. For most organizations, the ability to provision and manage raw bandwidth capacity or keep up with the latest operating system patches is not a core competency or a strategic focus. However, the ability to master and deploy business specific applications or develop industry specific content or data can provide significant competitive advantage to your organization.

Speed to Implementation

Implementation of new services or greater capacity can often be completed much faster by a service provider. Two examples:

Example 1. Assume a website has reached more than 1.5 Mbps of Internet traffic. If it were in-sourced, additional Internet connections would likely have to be established, which can take upwards of two months, plus the additional engineering time and expertise needed to configure the network infrastructure and devices to accommodate the new connections. In a service provider relationship, Internet bandwidth is typically delivered in a burstable model, allowing you to use as much Internet bandwidth as required.

Example 2. Implementing a new server into an in-house environment can often be a long and tedious process, involving engineering, support, purchasing, business line owners, and others. An outsourcing contract can single-source many of the implementation components of that server, including hardware, software, and ongoing support, usually at a fixed and pre-determined price.

Quality of Service

Few organizations are able to in-source the delivery of world-class IT services. By 'world-class,' we mean things like guaranteed performance and uptime of servers and services, Internet and network infrastructure, audited and certified security practices, and other. Most companies, especially small and medium sized businesses, simply do not have the resources to meet all the demands placed upon them by the business and/or outside influences such as state and federal regulations. Nor would it be smart to dedicate those limited resources toward providing such service. The quality of the services delivered by IT service providers is their focus and probably the single greatest determinant in the long-term viability of their business. Therefore it is their best interest to consistently deliver high quality service.

Additionally, service providers deliver against Service Level Agreements. These SLAs have provisions that apply penalties to the vendor for non-performance or non-compliance. This is something that is usually very difficult to deliver when the services are in-sourced.

Access to dedicated resources

What would it cost you to employ engineers certified in the highest levels of networking, hardware, operating systems, database administration, mail administration, process engineering, and facilities management expertise? How about on a 24 x 7 basis?

Instead of facing this challenge yourself, what if you could share this level of expertise across a broad range of other businesses and benefit from the expertise gained in managing such diverse environments? This is essentially the business model for an outsourcing vendor, and is the true value proposition to you of the service provider model.

How To Choose A Service Provider

The traditional model of choosing a service provider has been to prepare a laundry list of questions and submit it to every potential provider of the service. Then you can sit back, wait for the responses, analyze (and usually re-analyze) the responses, narrow it down to final choice and negotiate a contract.

Or, you could pursue a new IT outsourcing selection strategy:

“The alternative is what the most progressive organizations are doing today. You “fast-track” the first stage with a guided process for quickly assessing the field of candidates and selecting the best two. Just two. Then you get into the heavy lifting: work statements, data provision, negotiations, all customized to fit your needs. In outsourcing, a two-horse race usually produces a thoroughbred result.”

-- Strategic Sourcing. “The Book”. Gartner

Either way, in addition to the standard RFP questions, be sure to address the following:

- Does the provider have a track record of providing services similar to the ones you are interested in outsourcing?
- Who will be servicing your account on a day-to-day basis, both from an engineering and an account management perspective?
- Can the provider migrate you from your existing environment or location, if necessary? Does the provider have a proven track record of providing migration services?
- What experience and/or special skills does the provider possess?
- Does the provider single source the necessary hardware and software? What relationships does it have with the hardware and software vendors it supports?
- Does the provider outsource any of its services to another provider? If so, is there evidence of their ability to properly manage the subcontracted services?
- How strong is the provider's financial health? The following are potential measures of the financial stability of a Service Provider.

TABLE 1. SERVICE PROVIDER VIABILITY MATRIX

Source: Aberdeen Group, February 2003

Operating Cash Flow	The amount of cash a company generates from its business. This is a good measure of sustainability. If the service provider (SP) is losing money on every transaction it makes, then its long-term survival may be in jeopardy.
Resource Utilization	<p>An SP is a one-to-many business model that provides a resource-intensive service. Make sure the SP is focused on economies of scale:</p> <p>Personnel: Be sure that the SP is not overstaffed. It could be a sign of poor process or organization. Aberdeen favors one specific metric, Headcount to Managed Servers ratio. It reveals the effectiveness of a company's process and personnel. This ratio should exceed 1:6.</p> <p>Space: The data center land-grab days are gone, but the debt and ongoing maintenance costs are still around to haunt many SP's financials. Be sure that the SP has rationalized its data center requirements and moved to a modular space approach, just in case business grows or contracts.</p> <p>Network: Ask about the utilization rates of bandwidth and servers. Overcapacity is essential to handle traffic spikes, but it costs money. Be sure the SP is doing its best to optimize its resources.</p>
Cash	A stable SP has a cash trend that is heading up, not down. If your SP continues to burn cash, its operating model still has not been rationalized. The SP will eventually need to raise money, raise prices, reduce services or reduce service quality, or file Chapter 11—none of which necessarily bodes well for the SP's focus on quality service.
Long-Term Debt	Debt is not necessarily bad in the hosting market. But debt needs to be serviced. Does the SP have sufficient operating cash flow to make those interest payments? Or are they burning cash to stay out of bankruptcy? Do not be fooled, however, by the bankruptcy babies. Debt may be low, but if management has not changed, the company may be no better managed than it was before its spiral into bankruptcy.
Customer Base	<p>Look at the quantity and quality of the provider's customers:</p> <ul style="list-style-type: none"> • How much churn does the provider experience? High churn levels may be a sign of service-quality issues. • How diverse is the customer mix? A balanced customer base will insulate the provider from downturns, but too diverse a mix may mean unfocused marketing and sales. <p>How many customers does the provider have? A healthy customer base should lead to economies of scale and a sustainable business model.</p>

Moving Forward

Outsourcing can be an extremely valuable tool in your IT service delivery arsenal. However, improperly chosen service providers and improperly structured outsourcing agreements can backfire quite easily and severely. To that end, the following are recommendations that can help you through the potential pitfalls of outsourcing and help you negotiate an agreement that is of true benefit to your organization.

Before the Selection/RFP Process

Quantify your insourcing costs. While exact in-house costs can be difficult to quantify, you should be able to determine a fairly accurate internal cost model. Include both hard (quantifiable) costs as well as soft costs and benefits, but be sure to keep them separate, as the latter are likely to be challenged at some point. The 'Potential In-Sourcing Costs' table at the end of the guide is designed to help you identify some of the hard costs. Some of the soft costs include:

- Training and re-hiring
- Cost of downtime
- Purchasing and procurement
- Lost time for business critical projects
- Time to implementation of the project or service
- Process and tool development necessary to support consistently delivered operational services

Involve affected personnel where possible. If you are outsourcing to save costs and anticipate the elimination of positions or unwelcome staff movement, this is likely not possible. However, if you can involve personnel who will not be negatively affected, they can help you identify potential pitfalls and structure strong contracts and SLAs. They are also likely to be more supportive of the outsourcing agreement and help ensure its ongoing success.

Often, outsourcing agreements are used to re-allocate overtaxed internal resources to more business critical processes and applications. Inform staff of this rationale, explain to them the potential benefits of this change (increased value to the business, more time for vacation, family, training, etc.), and allow them to offer input as to where they can best contribute going forward.

Develop an outsourcing strategy. Before you proceed to the RFP or selection process, you should be able to answer the following questions:

- What do you expect out of the agreement and what will the result of the agreement be?
- What is your basic reason (or reasons) for pursuing an outsourcing contract?
 - Lower costs?
 - Faster implementation of internal projects?

- Better performance and uptime of service?
- Who will manage the agreement and how will it be managed?
- How will the relationship enable your business?

During the Selection and Negotiation Process

Agree on common evaluation criteria. If there are less than two people involved in the selection in your organization, this may be a moot point. However, if you create a selection committee or involve multiple people in the selection process, agree on a common evaluation methodology, criteria, and weighting system. Proper evaluation planning can avoid significant headache and wasted effort down the road.

Check References. This is one area that cannot be overemphasized. While references are not the holy grail of the selection process, they are your one chance to get a third party's take on the provider's delivery capabilities and past performance. Where possible, try to get references that utilize similar services (technology, industry, size of company, amount of services) that you intend to contract for.

Once you get the references, be sure to follow through on the reference checks. Some sample questions include:

- How long have you been with the service provider?
- Why did you choose them over other service providers?
- How satisfied have been with their service levels and management expertise?
- Have there been any problems? How were they addressed?
- Do you plan to renew your current contract when it expires?

Carefully examine penalties for non-performance. Calculations for service credits for non-performance of the SLA can be confusing. Create several example non-performance scenarios and take the time to walk through these with the service provider. Determine the potential service credits and make sure you understand all language and caveats. Consider what is truly important to your organization, and structure the service credits appropriately.

For example, the difference between 99.9% availability and 99.5% availability is likely not nearly as detrimental as 99.5% and 97%. Make sure that the non-performance credits represent this difference. If you expect the provider to provide significant credits at the first hint of unavailability (for example, 99.8% when 99.9% was promised), expect to pay more for this level of service.

Option to terminate for non-performance. Even more important than the ability to receive service credits is the ability to terminate the agreement for chronic non-performance. Include clauses in your contract that give you the ability to terminate the agreement if the provider consistently under performs. For example, if the service is unavailable 8 consecutive hours, or 16 hours in a consecutive two-month period, give yourself the right to terminate the contract. Make sure that this ability to terminate does not come with any penalties or hidden fees. Depending on the nature of the service and the potential investment the provider has to make to

deliver your service, they may be reticent to provide this without recouping some of their investment. Which leads to ...

Option to in-source. More progressive vendors will allow you the opportunity to terminate the agreement without significant penalty if you choose to bring the service back in-house, as opposed to hiring another outsourcing vendor. However, the more direct investment (dedicated hardware and software) the provider has to make to deliver your services, the less likely they will be willing to allow this option.

Instead of using the necessary hardware and software inclusive as part of the service, consider leasing the necessary hardware and software and outsourcing the hosting and management. There are several potential benefits to this approach:

- Since you “own” the assets, it is much easier to move them to another provider or bring them back in-house should the situation warrant.
- Fair market value leases offer the ability to refresh your technology in 18 to 24 months at approximately the same monthly cost.
- “Owning” the hardware and software gives you more freedom to configure and customize the implementation to your needs.

After Contract Negotiation

Appoint a contract management role. An outsourcing contract works only as well as you choose to exercise it. When your provider consistently delivers high quality service, by all means, enjoy the service delivery and pay attention to new or existing initiatives. However, if issues or problems develop, it is important to address them before they grow too large. One way to stay ahead of such problems is to appoint someone who has primary responsibility for managing the relationship with the outsourcer. This way you have a single person familiar with all facets of the outsourcing agreement and a single “historian” for the performance of the agreement. It also allows the provider to service your account better, as there is a single point of contact in your organization to escalate issues and concerns to.

Regularly review strategy. On a regular (e.g., yearly) basis, review the outsourcing strategy you formulated in the pre-selection process. Does it still match your business priorities? Do you need to reduce services or add new services? What parts of your agreement are working? What parts are not? Be sure to share your feedback with the provider, as they are likely to incorporate your feedback into their quality improvement process, often at no additional cost. And, if they do not pay heed to your recommendations, this may be an indication that it is time to look for another provider.

Conclusion

Berbee provides IT network and systems outsourcing services. We believe we have a unique value proposition and we do not sell services we are not qualified to provide.

We also provide on-site consulting and hardware and software resale services for those clients that choose to in-source, which gives us a unique and relatively unbiased perspective. However, we believe strongly in the potential for IT outsourcing, we have seen it work for our clients, and we continue to investigate significant time and effort into developing world-class services and IT best practices.

If you are considering IT outsourcing as a solution, we welcome the opportunity to share our experience and capabilities.

Appendix A: Data Center Best Practices Checklist

This list is not designed to be comprehensive. Nor is it designed to eliminate potential providers. It simply provides some requirements to building world-class data center operations.

Facilities

- Continuous power supply with backup uninterruptible power supply (UPS) systems:
 - Adequate UPS capacity including air conditioning and lights
 - UPS systems tested at full load on monthly schedule
 - Fuel for UPS generators (48+ hours worth) kept on premises and monitored for local environmental compliance
- Conform to or exceed applicable local structural building codes utilizing standards such as fire doors and reinforced walls and complying with disaster proof design:
 - Comply with all local zoning ordinances
 - Certify not located in a 100-year flood plain
- Adequate multi-zone air conditioning, including a backup system for the multi-zone air conditioning:
 - Climate control including humidity sensors and control
- Heat and smoke detectors that meet or exceed all local fire code regulations.
 - Very Early Smoke Detection Alarm (VESDA)
- Dry pipe system zoned to release water only where needed
- Easily removable access panels in raised flooring
- Separate grounding systems to prevent grounding loops
- Formalized physical facility preventive maintenance program
- 48 V DC power converters, 220 VAC, 20A, 30A, 40A
- Power filtering in UPS system

Physical Security

- Written security policies readily accessible:
 - Badge sharing and piggy back entry rules
 - All visitors must be admitted through reception

- Written statement of work upon sign-in
- Building access procedures:
 - Limited number of building entrances in compliance with local fire ordinance
 - 24x7 onsite security
 - Visitor-logging procedure
 - Card-key, biometric, or similar entry locks
- Equipment locations:
 - Video surveillance and motion sensors for entrances, interior doors, equipment cages, and critical equipment locations within the building
 - Managed firewall services with 24x7 monitoring available
 - Individual cabinet locks

Network Security

- Written network access security policies readily accessible:
 - Password policies (such as not sharing, lengths, forced renewal, aging)
 - Acceptable use policies
 - Documented user responsibilities on security in company policies and re-enforced by education
 - Asset protection
- Network security infrastructure in place:
 - Perimeter protection (firewalls, filtering)
 - Intrusion detection
 - Authentication and authorization (passwords, RADIUS/TACACS, Secure IDs)
 - Backup and recovery systems to restore after a problem
 - Regular assessment of network infrastructure
 - Assessment of network expansions or additions
 - Tape or media storage offsite backup
 - Regularly scheduled security audits

Backbone Connectivity

- Multiple direct connections to Tier 1 Internet carriers using high speed routers as gateways
- Class C Internet address blocks available
- Fiber enters the data center through diverse conduits or routes (for example, if a backhoe cuts through conduit, the network reroutes to minimize loss of service, e.g. Sonet Ring)
- Aggregate bandwidth sufficient to scale the network to meet customer's service demands
- Formalized Service Level Agreement (SLA) policies

Core Network

- High-end routers in a redundant configuration
- BGP-4 implemented
- Adequate total packet-per-second capacity for peak customer load
- Firewalls in place
- Network security team in place
- High-end switches deployed
- Switching and links entirely redundant with no single points or paths of failure
- HSRP implemented for fail-over protection
- Intrusion detection implemented
- Automatic notification of intrusion attempts in place
- Server antivirus software protection

Operations

- Database of all installed equipment and configurations
- 24x7x365 telephone support
- Supported monitoring:
 - 24x7 monitoring of dedicated servers and network equipment (note both frequency and method, such as PING, Simple Network Management Protocol (SNMP))
 - 24x7 monitoring of the health of the equipment with alarms and pager alerts for network failure and failovers
 - 24x7 monitoring firewall services available

- Alternate NOC available
- Second-tier support personnel located nearby
- Trouble ticket processes:
 - Created and logged for all unusual or unexpected events
- Automated case escalation procedures in place including escalation time frames
- Reporting that provides trending statistics on trouble tickets and minutes (above) to facilitate quality and customer reports
- Performance reporting and end-user impact monitoring
- Periodic and exception reports provided to customers (including usage and problem reports)
- Spare equipment on site for key networking equipment available in case of hardware failure
- Business continuity plan:
 - Daily site backups
 - Tape vaults or other secure storage facilities on site in case of natural disaster
 - Onsite and offsite storage available
- Customer callout and escalation database
- Intercom system
- Written procedures for each customer on alarm handling

Processes

- Processes should build upon best-practice bodies of knowledge, such as the Information Technology Infrastructure Library (ITIL). Each process should have a clear owner, who ensures compliance, within the provider organization.
- Configuration Management
 - Should include tracking of all data center devices, including detail about the devices, and allow relations to problem, incident and change records
- Problem and Incident Management
 - All incidents and problems should be recorded. Detail in each record should include all steps of problem resolution and notations for each change to the record including assignments, escalations, etc.
- Change and Release Management
 - Standards for change types, notification and approval should ensure that changes do not result in problems. All changes, whether “routine” or complex, should be tracked.

- Reporting and Service Level Management
 - Availability, recoverability and support concerns should be addressed by service levels. Customers should have access to reports on all configuration items, problems, changes, and work orders. Service Level reporting information should be available.
- Security Management
 - Security should be an integrated part of each operational process. Additionally, security review process should be completed regularly.

Appendix B: Potential In-Sourcing Costs

This list is to be of assistance in quantifying the hard costs of in-sourcing.

Operations and IT Staff

- System Administrators
- Database Administrators
- Application Server Administrators
- Network Engineers
- Security Engineers
- Deployment Managers
- 24x7 Operations Support Staff

Hardware

- Production Server Hardware
- Staging Server Hardware
- Production Network Hardware
- VPN
- DNS
- Load Balancing
- Firewalls
- Routers
- Switches
- High-Availability Storage
- Tape Backup
- Backup and Restore Hardware
- Console Servers

Software

- Server software
- Operating System
- Application Server
- Database Server
- Network software
- Network and Systems Management Software
- Intrusion Detection Software
- Web Log Analysis Software
- Backup and Restore Software

Facilities

- See Data Center Section

Support Costs

- Capacity Planning Service
- Application Architecture Expertise
- Database Server Architecture Expertise
- Network Architecture Expertise
- Configuration Management
- Security Log Management and Review