

Technology Support Costs: Invasion of the Profit Snatchers??

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Introduction

Do you ever feel as if your computer systems have taken over your core business plan... in more ways than one? You are not alone. America's computer-technology explosion is forcing a growing number of small and mid-sized companies to devote much of their time and resources to hiring and maintaining competent technology professionals. The cost of ever-changing technical training consumes enough money to re-align the planets. This trend has many companies looking for more cost-effective ways to keep their computer systems running smoothly and performing at their best. Instead of trying to do everything themselves, many companies have turned to outside service providers for day-to-day monitoring and maintenance of their networks and systems. Outsourcing saves your company a lot of money, and it gives your staff more time to focus energy and resources on important issues relating to your central business and marketing plans.

How do you go about evaluating what makes the most sense for your organization? What's involved in outsourcing? When is it a good idea to outsource? When is it better to keep the maintenance in house? The answers vary based on your organizational culture and technology needs. This paper will examine how to conduct an evaluation for your organization. This will enable you to apply this information and make the decision that is right for you.

Levels of Outsourcing

For purposes of this paper, we will assign outsourcing into 3 different levels in order to simplify the discussion. Your service provider will often be flexible to offer different levels of service for different scenarios depending on your needs or in-house expertise.

Level I

Consider this the "Do-it-Yourself" level. At this level you outsource the reporting and monitoring systems that notify your internal staff when there is a problem. Similar to an alarm company that detects trouble at your home or business, the central operations for the monitoring does not reside on your site. The Application Service Provider (ASP) company usually assists in the implementation and ongoing maintenance of the solution. You save money by having someone remotely watch your systems around-the-clock, instead of doing it yourself.

- ✦ The downside of this solution is that you still have to train employees to fix and maintain your systems when something goes wrong. Also, you may have to find employees who are willing to work or be on-call 24/7/365.
- ✦ The benefit of this level is that you don't have to buy and maintain expensive monitoring software. You have few security concerns because the software uses remote agents that send information to the central location, but the ASP does not require access to your internal network for remote repair.

Level II

This next level involves outsourcing the monitoring and the ability to repair problems remotely. The monitoring company becomes your first line of defense. If basic system problems cannot be resolved remotely, then your staff is notified based on an escalation procedure. In this case you save time and money by allowing the ASP to resolve many of the day-to-day issues. You can also employ this solution to complement your existing staff for coverage outside normal business hours.

- ✦ The upside of this level of support is that you free your staff from common troubleshooting issues. The time spent tracking down simple problems is eliminated and more time is devoted to development and new projects.
- ✦ The downside of this approach is that your staff must still be available for on-site repair in case a situation arises that cannot be resolved remotely. You must also be very careful with the security of your networks to ensure you make your systems vulnerable when the monitoring company does remote repair.

Level III

The most cost-effective form of outsourcing is to allow the ASP internal access to repair problems remotely and the authority to do service calls when necessary. This takes most of the everyday maintenance work away from your internal staff. Your tech people now have time to devote to keep your company technologically ahead of the competition. This approach also helps to reduce staff turnover by keeping the job interesting and free from daily maintenance and fighting fires.

- ✦ The upside of this approach is that your people are now focused on strategic technology projects for your company and not the day-to-day maintenance.
- ✦ The downside is the security and trust you must have with your provider that they will provide a level of support that you would yourself.

Organizational Issues

Once you understand the different levels of outsourcing support, the next step is to closely examine your **company culture**. Is your organization open to having an outside company monitor your systems and networks, and if so, to what degree? Do you have excellent methods and procedures already in place for handling system problems? If so, you may want to use existing procedures, and just have your people notified if a problem is brewing. Conversely, you might have a brand new network with inexperienced people, who need an additional level of support. During business hours you may want your own people notified so they can resolve the issue. After hours, you may want the problem resolved and have your staff notified as to the issue and resolution. If your goal is to concentrate on your core business without having to divert time and resources to the technology that supports it, your preferred scenario would be to most all of the work outsourced.

Here are some good questions to examine your **organizational structure** to determine whether outsourcing is a good fit and if so at what level.

- ✦ Are you willing to give an external company access to your network? If you answer no to this question, then you should rule out Levels 2 and 3, and stick to an internal solution or Level 1 solution.
- ✦ Is your staff experienced in all of your systems and networks? Is someone willing to be called in to do troubleshooting 24/7? If you answered “no” to either of these questions, you might consider a level 2 or 3 solution a complementary solution.
- ✦ Do you find it difficult to find and replace technical staff? If this question is a great concern for you, then Levels 2 or 3 can insulate you from day-to-day problems if a technical staff member leaves.
- ✦ Is your staff so busy doing day-to-day maintenance that they are overworked and unable to plan for new technological upgrades? What is your resulting opportunity cost? If your technical staff is being used for low-end tasks, a Level 2 or 3 will supplement your staff’s experience for high payback projects.

After you've addressed which outsourcing level, if any, will work best for your company. You should next defining your support needs.

Support Needs

Here are some questions to help you evaluate your current condition and what could make your systems more reliable and efficient.

1. Is your network equipment performing well at your normal level of network traffic?
2. Is the network equipment able to keep up with peak loads of usage?
3. Are there certain servers running software that is crucial to operations?
4. Is there any scheduled maintenance or downtime interfering with operations?
5. Are performance indicators for your servers within normal parameters?
6. Are there trends that show your servers or network equipment will need some form of upgrade or maintenance within the next 6 months?
7. Are the telecommunication circuits being used to their capacity?
8. Will telecommunication circuits need to be upgraded because of current over-utilization or growth patterns?
9. How much downtime do you have during hours of normal operations? How does this affect your employee performance and productivity?

These and other questions need to be answered to ensure your systems are performing as they should. To answer these questions, some form of monitoring and reporting software is needed. You will generally want a centralized monitoring system that can collect data from all your systems. This collection software will usually reside on a central server, and some form of agent will be installed on the target systems.

In-house Monitoring

This next section illustrates the costs involved in **setting up your own monitoring and reporting system**. This is also a great section to read if you want to understand a true comparison between outsourcing and —in-housing.” To set up your own operations center, you must first purchase and install your own hardware and software. Once your hardware and software infrastructure is in place, you will need to train your personnel. These startup cost to your business are normally bypassed by outsourcing. After your operations are configured and ready to go, they'll require adequate 24 hour staffing and ongoing maintenance, a recurring cost to your business.

The table below outlines some startup costs you incur to when implementing your own monitoring and reporting. The table gives a rough cost for each item showing how the calculation should be done. For this scenario uses an installation of about 20 devices. For a larger customer, the correct tools need to be identified and priced out in order to get an accurate cost analysis. You can price out some of the major vendors to get a good idea of the current costs of the software and hardware.

Item	Rough Cost
Monitoring Software (including agents for monitored systems)	\$5,000
Hardware	\$4,000
Configuration & training for monitoring software	\$5,000
Reporting Software	\$5,000
Configuration & training for reporting software	\$2,000
TOTAL	\$21,000

Table 1-1 In-house Start-up Cost

The next step is to identify the recurring costs associated with maintaining these systems. Again, an example using a rough calculation is included below. You would need to fill in your actual administrator costs and times you believe s/he would spend supporting the systems. The table below assumes a network administrator is making \$55,000/year for a loaded rate of \$63,250/year, and 15% of the startup cost recurs each year for hardware and software maintenance.

Type of Service	Employee Commitment	15% cost of maintenance	Startup cost spread over 3 years	Total
Reporting and monitoring software care and maintenance	¼ person/year \$15,800/year	\$3,150	\$7,000	\$25,950/year
24x7 system coverage (employee carrying a pager) and maintenance of the monitoring and reporting software	1 ¼ persons/year \$79,000/year	\$3,150	\$7,000	\$89,150/year
24x7 system coverage (pagers) and administrative tasks	2 persons/year \$126,500/year	\$3,150	\$7,000	\$136,650/year

Table 1-2 In-house Maintenance Cost

Take a close look at the charges you calculated in the previous steps. First, adjust the employee staffing charges in the above chart if you believe that it will take more or less time to do the monitoring and maintenance of your systems. Next add your internal costs, such as telecommunications charges, pager costs, mobile phone costs, remote access and security costs, and any other charge that may be incurred by internal staff doing the work. If you have a larger installation, an internal cost may include overhead for management to oversee the network engineers to service your entire infrastructure.

Comparison

Once you've completed the calculations for the above scenario you have a starting point for doing some comparison pricing. Since the services and pricing offered will differ from outsourcing provider to provider, you should always compare features of service to determine that you are comparing apples to apples. Once a support level and price have been determined, you can easily calculate your annual cost.

For example, if your company has 20 devices and decides to go with Level I support. In this scenario the monitoring and reporting software are running off-site:

You incur none of the initial hardware and software costs, and utilize your existing in-house staff to respond to alerts.

Initial hookup charges: \$2400 from the ASP. Average that cost over 3 years.

The ASP may offer a price for the service for 20 devices at \$80/device/month. **Your total cost for the year** will be $20 \text{ devices} * \$80/\text{device}/\text{month} * 12 \text{ months} + \800 (initial hookup calculated over 3 years) = **\$20,000/year**.

After reviewing the previous chart, you will find that the company **saving totaled \$5950/year**. This is a considerable annual savings for a small to mid-sized business. If you repeat these calculations for Level 2 and Level 3 support you should find an increasing cost savings for your organization. If you do find a scenario that does not save you money, there are also many intangible reasons to consider before concluding that outsourcing is not the right answer for your organization.

Intangibles

After you have run through the cost analysis, consider **the intangible** reasons that make outsourcing attractive. Even at a seemingly more expensive cost you may find it still makes a lot of sense considering the following:

Core Business-Are you a technology company or one that benefits from technology? If the latter, do you wish to maximize benefits and minimize cost?

Staffing concerns- How difficult is finding and retaining qualified technical staff? Is turnover in technical positions a business challenge?

Scheduling problems- You may be able to staff from 9-5, but do nights and weekends have little or no coverage? Are you overworking your existing staff?

Technical Imbalances- Is your staff may be very good at maintaining one aspect of your infrastructure but inexperienced in another?

Increased IT productivity- Will your IT people be happier and more effective doing new projects versus system maintenance? Will this help you to retain the best people for your organization?

Speed to completion- Will your new projects finish faster because your personnel can focus their efforts on strategic projects instead of support?

If these examples apply to you, they will help you justify the need for outsourcing. If you feel however, that the only reason you would have for outsourcing is cost savings, then you can simply refer to your previous calculations from before.

Risks

After examining the intangible benefits and potential for synergy within your working environment, it is necessary to consider the risks. A potential risk could be the security of your network. Consider the following;

- ✦ Will the monitoring company ensure the privacy of your systems?
- ✦ How will the outsourcing company access your systems without making you vulnerable to hackers when allowing the outside company in?
- ✦ Will the outsourcing company respond to the alarms in a timely fashion and keep your systems up and running as you would your own?

These questions will also help you characterize the nature of outsourcing for your organization and which vendor is the most appropriate for your organization.

Conclusion

Once you have completed all of the steps, you will be better able to make a balanced judgment for your organization. You have examined your company's needs and abilities to monitor your technology performance. You have enumerated the costs for doing the work in-house versus outsourcing. And finally, you have reviewed the intangible benefits and risks to pursuing an outsourcing strategy. With this information you will be able to have a clear picture to make an informed decision that meets the needs of your organization.



We let our clients speak for themselves....

"In our business, network reliability is critical. Because PACE is constantly monitoring, maintaining, and updating our systems, network issues rarely arise, and when they do they can be dealt with remotely - usually within minutes. Their round-the-clock support has come in handy more than a few times when our staff has been on business trips, and the technical staff is always available to solve issues- no matter what time we call. Using PACE's service has not only eliminated any downtime, but has given us the peace-of-mind we need to carry on our business with confidence. Thanks PACE!"

Elizabeth , International Gaming Company

"The CompleteCare I.T.™ Program from PACE is like having a full-time dedicated I.T. person on staff to provide solutions for simple to the more complex technical issues that we face. The convenience of simply sending them an email or trouble ticket or even placing a quick phone call in addition to their remote technical support services means that we have solutions to our problems in little to no time at all - eliminating any lengthy periods of downtime. Their staff is also very knowledgeable with the various computer hardware/software products on the market and has assisted us greatly when we have either upgraded or purchased new equipment. We have benefited tremendously from the services offered by PACE and they would be an added bonus to any firm in need of technical support."

Jason, Publishing Company

"The peace of mind that PACE delivers to us on a daily basis is immeasurable. Before we started using their CompleteCare I.T.™ service, we were constantly waiting - for callbacks from technicians, for issues to be resolved, and even then there were no guarantees that the issues wouldn't re-occur. PACE brought the waiting and unreliability to a quick end. Issues get taken care of in a matter of minutes and they're taken care of for good - PACE doesn't fool around with band-aid solutions. As for their technical prowess, all I can say is that any solution they've come to the table with is simple and proven effective, and they're continuously sensitive to our budgetary guidelines. I always feel like I'm the first priority with PACE - and that alone is worth the price of admission!"

Judy, Product Manufacturing Company

"We have been a PACE Technical client since the very beginning. They have provided us with excellent advice and service (including CompleteCare I.T.™), and have been pro-active on a number issues which might have caused serious problems down the line. We have relied on their knowledge and professionalism to support us on a wide range of hardware and software issues and feel confident that we are in good hands. They are quick to respond to problems, willing to make the extra effort it takes to get us through and pleasant to deal with on a person-to-person level."

David, International Education Facility