

Infrastructure Outsourcing for Nonprofit Organizations

Clear communication and a good working relationship are key

By Michelle Murrain and Douglas Cohen - Dot Org Media - February 06, 2003

Many nonprofits do not have the resources to hire an IT staff person to support, maintain, and plan all of the organization's technology infrastructure needs. Those that do have dedicated staff often find that their technology needs are greater than their staff can handle, particularly when they want to upgrade or install a new system. As a result, many nonprofits outsource the support of all or a part of their technology infrastructure.

Success in outsourcing depends on how well you define and communicate your technology needs to potential contractors, and the quality of the relationship you develop with the outsourcer. The goal of infrastructure outsourcing is to bring in experts to serve your technology needs more efficiently than you can on your own, freeing you to dedicate more of your resources to your organization's mission.

In order for an outsourcing arrangement to be successful, you need to define the services that you need and find the best outsourcer to provide them.

Infrastructure needs typically fall in the following categories:

1. **local area networks (LANs) and wide area networks (WANs)**
2. **Internet access**
3. **Internet services (e-mail, Web sites, etc.)**
4. **hardware and software: servers, workstations, productivity software, specialized software**
5. **user services: help desk, support, training**

Within each of these categories, an organization may outsource day-to-day maintenance and administration, planning and design, or installation and upgrades. Making a decision about what to outsource should depend primarily on the capabilities and needs of the organization and the knowledge and expertise of the staff.

Many vendors provide a multitude of services. If the vendor is reliable, this type of arrangement can be very useful for an organization, providing it with one source for support issues. However,

entering into a relationship with a vendor for this kind of end-to-end service requires careful consideration and research about the vendor.

[Note: See HUD's recent report on HMIS Vendors at the HUD website:

<http://www.hud.gov/offices/cpd/homeless/hmis/guide/index.cfm>]

As a general rule, if an organization can hire one IT staff member, it is best to focus that IT staff member on general user support and training, rather than network administration, system development, or major hardware or software upgrades. These tasks require a specialized expertise that is often easier and cheaper to acquire by outsourcing. This is a good guideline to follow unless there is significant expertise in the organization in the use of applications (like productivity suites, e-mail and Web clients), such that general user support and training isn't a big concern.

Hardware and Software Outsourcing

Virtually all organizations outsource their hardware and software needs in some way. How you outsource depends on your organization's technology expertise. If you have IT staff or other staff that understand the particulars of how computers are configured (for example, how much memory and hard drive space is needed, what kind of network and peripheral support is needed), it is generally cheaper to order computers directly from a large hardware vendor, and have the on-site staff set up the computers

when they arrive. However, there are advantages to using local vendors for this service, such as quick and reliable on-site support, more personalization, and the added support if this vendor also handles your network infrastructure. (One very important thing this can prevent is "vendor finger-pointing," whereby each vendor blames the other for a specific problem, and neither will remedy it for you.)

In any event, it is critical that you keep careful records about each personal computer. These records should include where and when the computer was purchased, its exact configuration, all serial numbers, warranty information, and the support contact. When hardware and software comes from multiple sources, it's important to keep clear records.

In general, it is probably best to have one or more IT staff or technology-savvy staff member serve as the contact for all hardware and software support issues. This approach works well for two reasons. First, it is important that staff deal with someone they know, who can then handle the first level of troubleshooting (e.g. is the printer plugged in?) before a potentially expensive support call is placed. In addition, this person can keep track of support issues, identify trends, and create solutions before the problems become too widespread.. This person needs to have a good handle on technology issues, and a familiarity with the hardware and software you use. It is probably a good idea, if the person is not part of the IT staff, to provide training.

Maintaining your computer hardware, replacing obsolete systems, and keeping the software updated are other ways to reduce support needs. Standardizing on operating systems, and applications, and hardware will also simplify support tasks. A consultant or vendor familiar with the hardware and software you use can help you with this.

Local Area/Wide Area Network Outsourcing

Many nonprofit organizations already have a LAN. But even these organization need to consider their growing needs. Organizations with multiple sites may want to look at developing a WAN to network everyone together. In general, unless an organization has a large IT staff or has some other reason to handle its own networking needs, it will outsource some part of network design, planning, implementation, or installation to a vendor. Often the organization will handle the day-to-day maintenance of the network. (The level of expertise required for planning, designing, and implementing a network is quite a bit higher than the expertise needed to maintain it.) A simple peer-to-peer network (with no server) can be maintained by a tech-savvy staff member. However, a client-server network requires more expertise and training. It is possible that a tech-savvy staff person -- perhaps with some additional training - - can maintain a client-server network, as long as the vendor is available for support.

If an organization is planning a new LAN or WAN, or wants to upgrade or expand an existing one, it is critical that a staff member be involved in the planning. Don't let the vendor make assumptions (such as the number of network

drops per office, or the location of the server close without a detailed review.

Additional planning considerations include the expandability of the network, security (firewall devices, server security configuration, etc.), network capacity (is gigabit Ethernet a necessity or will standard 100Base-T be fine), and technology (wireless, virtual private network (VPN) for WAN, etc.). It is essential that the vendor explain the implementation in a way that you understand. If your vendor is unable or unwilling to do that, then you should probably find a new vendor. The vendor, upon completion of the project, should also provide a network diagram, information on all appliances (hubs, switches, firewalls), a cabling plan, and configuration documentation.

Internet Access

Pretty much everyone outsources Internet access in some way. Consider outsourcing your Internet access with the same vendor that is handling your LAN or WAN. Many networking vendors also provide Internet access (usually, they are resellers of another provider). Again, this does provide a one-stop source for support, and avoids vendor finger-pointing. On the other hand, if your Internet access needs are beyond simple DSL, a dedicated data/voice vendor may be preferable, as they can provide a higher level of service. Again, doing careful research on the reliability of any of these vendors is key.

Internet Services

Providing Internet services, including a Web site, e-mail, and extranet (a password-protected Web site), requires a stable public IP address. There are basically two ways to get a stable public IP address: get your own, or use someone else's. Getting your own requires a higher level of Internet access (either business-level DSL or T1 or higher) and a server to handle the Internet requests. For security reasons, this server should probably be a different server than your organization's file server.

Many small to medium-sized organizations don't have the resources to house their own server, and instead use someone else's IP address. A virtual host provides you with a stable IP address to host your Internet services. A virtual host provider could be your ISP, your network provider, or a stand-alone company. There are different levels of virtual hosting, and the level you should choose will depend on your needs. Again, having a point person who is responsible

for knowing all of the information about the virtual hosting provider, and coordinating support is important. Support from virtual hosting companies tends to be much less responsive in comparison to support from other types of vendors, so having a knowledgeable staff member who understands how Internet services work is important.

Help Desk, Support, and Training Outsourcing

Unless an organization is rather large, or has some very specific support and training needs, outsourcing these functions should not be a priority. Staff training should be organization-specific and targeted to particular tasks. Training from outside vendors will almost invariably miss the mark, unless you have planned in detail with the vendor in advance, or the training is for a specific piece of software that a small number of staff will use (such as a financial management package). This is not to say that outside training is never appropriate; it can, for example, be successfully used to train small groups of staff on advanced topics, and these staff members can then train other staff. (See the Adopting Technology series on technology training for more information.)

Day-to-day support calls should go to one person or a small group of staff who can screen the calls and determine what to do with them (ask a specific set of questions, provide a help sheet, or call the vendor). This person or group of people can keep track of the kinds of calls that are being made, and who is making them (e.g. Mary in HR always has printing problems). A problem-tracking, or "trouble ticket" system for keeping track of help desk calls is a useful important tool. If your IT staff is maxed out, it can be helpful to work with a vendor that provides help-desk support, especially if the vendor is willing to help you plan a system that will lessen the burden on support. Many vendors who provide hardware and network services can monitor and configure your network and servers remotely. This might be a strategy for organizations that don't have staff expertise to maintain or troubleshoot network services. You can often distinguish good vendors from bad vendors by their approach to technical support. A vendor should be responsive, willing to explain what problems they are finding, and willing to plan and implement solutions with you. A vendor that doesn't respond to service calls (or responds late), is not willing to explain what is going on, or is inflexible in the way they plan and implement systems are vendors to avoid.

Fortunately, there are many vendors in all of the technology categories identified here. Finding a new vendor is likely not going to be difficult. It might be worth finding a knowledgeable consultant who can act as an intermediary to help you choose a vendor.

Summary

Outsourcing technology infrastructure needs requires thought, research, and detailed planning. The keys to successful implementation include clear communication with vendors, designating specific point people who are responsible for a specific infrastructure aspect, and working to increase the expertise in an organization to decrease the dependence on external vendors for support and training.

Editor's Note:

This article is part of the Adopting Technology Series, which is produced by [Dot Org Media](#), a project of [Summit Collaborative](#).

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