

There is No Such Thing as Free Support

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ABSTRACT

Every campus department needs computer support, from ordering and setting up new computers to installing software and answering software questions. This is in addition to training classes, local area network support, access to centrally supported systems (such as email, calendaring, network services, and administrative systems), maintenance programs, and a variety of other computer-related issues.

Who supports these departments? Large departments may be able to hire or contract a full-time support person, but what about smaller departments? What about continuity of services when a support staff member leaves for another job or a student employee graduates? Also, a single support person has expertise in particular areas but may not be well-versed in all campus-wide issues.

The Iowa State University (ISU) Administrative Data Processing (ADP) Center provides support to both large and small departments on campus through a charge-back system. The charges are based on the number of computers and printers within a department, so a small department pays much less than a large department, but receives the same level of support and services.

This paper is intended for directors, help center/desk professionals, managers, and system administrators. This paper lists the details of the current microcomputer support plan and describes the cost to departments. Services provided to the supported departments will be listed and discussed in-depth. Future goals of the ADP Center will also be discussed.

Keywords

computer support, Help Center, charge-back, support costs

1. INTRODUCTION

Iowa State University is a major research university located on a lush, sprawling campus in Ames, Iowa. The university got its start more than a century ago as one of the nation's first land-grants -- universities dedicated to the idea that higher education ought to be practical, open to all, and shared with people outside the campus.

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ISU has two computing centers: the ADP Center, which focuses on the administrative needs of the campus, and the Office of Academic Information Technologies (AIT), which focuses on the academic and research needs of the campus.

The ADP Center is the administrative information systems and services support unit of ISU. The ADP Center operates as an entity within the university's Business and Finance division. In this context, the ADP Center has developed its strategic plan and defined its goals to ensure that microcomputer/local area network (LAN) support and effective administrative information systems are provided to help conduct the business affairs of the university.

The staff at the ADP Center numbers around 100 and includes teams of specialists who provide various types of services including support for microcomputers, networks, central-server applications, Help Center, equipment acquisition, hardware and software installation, and training. The ADP Center's goal is to provide quality and responsive services for its supported clients.

2. HISTORY

The ADP Center began in 1942 when punched card machines were installed in the university's business office. Until the end of the 1970s, IBM-mainframe computing and centralized applications were the only function of the ADP Center. The cost of analyzing, writing, and maintaining these mainframe applications was charged to the specific department. In the late 1970s, needs for word processing introduced HPWORD to the campus and, with it, support costs. Once again, the support costs were charged back to the individual departments. As personal computers (PCs) were introduced onto campus in the early 1980s, it was a natural move to charge ADP Center-affiliated departments for the support costs of the PCs and LANs.

3. SUPPORTED DEPARTMENTS

The ADP Center is the only on-campus source for full microcomputer and network file server support. The major focus of ADP Information Technology (IT) services and support is to campus administrative offices such as enrollment services, registrar, business, and financial offices. Other departments may choose to use ADP Center support services. Some of the campus departments that chose the ADP Center support plan are athletics, residence halls, and some academic offices such as the administrative and advising offices of the Liberal Arts and Science (LAS) college.

4. THE VALUE OF HAVING STANDARDS

The ADP Center has been able to provide consistent on-going support to client departments by requiring that departments use standardized hardware and software. This standardization allows

the ADP staff to focus and become experts on the selected software packages and hardware platforms. It also fosters a strong relationship with hardware and software vendors for support services and purchase agreements. Another advantage of having standards is the number of training classes is reduced and can be offered on a timely basis. Also, ISU staff can move easily from department to department and not need to be retrained on new software packages.

For hardware, the ADP Center supports and maintains Hewlett Packard, Dell, and Apple microcomputers. Over the years, other hardware vendors have been evaluated and decisions made about their suitability for ADP Center support.

As for software, the ADP Center only supports specific software packages including Windows, Microsoft Office, Passport TN3270 client, Network Associates anti-virus software, and PageMaker for the PC platform. The Apple platform is standardized on Mac OS, Microsoft Office, TN3270 client, Network Associates anti-virus software, and PageMaker. Under special agreements, the ADP Center will support other software packages. These guidelines are continually reviewed as departments see new packages in vendor shows, in magazines, and at conferences. To help clients make good decisions about 3rd party application software (which is usually expensive and creates integration issues with existing centralized systems such as accounts receivable), the ADP Center has written an Applications Software Acquisition Guide. This guide helps address all aspects of purchasing 3rd party application software including the acquisition process, desired functionality, installation and on-going support, integration with other systems and databases, upgrades and new releases, and hardware and operating system considerations.

By being open-minded to client needs and working through the support questions on an objective basis, we are seeing better solutions to the client's and the university's application software systems.

5. COMPONENTS OF THE SUPPORT PLAN

From its very beginnings, the components for PC support have changed and expanded, and now include the following areas.

5.1 Local Area Network Support

5.1.1 Hardware Support

The ADP Center Systems Team members provide installation, operational, and maintenance support for network hardware and operating system software. They also consult with clients to recommend new technologies and provide expert advice on network needs. Other areas of support include security, telecommunication needs, and nightly backup for LAN servers.

5.1.2 Software Support

The ADP Center Office Information Systems (OIS) Team members provide software support for network applications. This support includes software recommendations, as well as installation and maintenance of those applications. Also, departmental LAN Network Coordinators have been identified in every supported department. Network Coordinators attend a class on Novell Network Administration and are responsible for administering clients including managing file storage and access

rights to their network. The department Network Coordinator is the first level of support and they coordinate IT efforts with the ADP Center OIS Team support. ADP Center staff members work closely with the Network Coordinators to share information about day-to-day issues, as well as new technology.

5.1.3 Email and Calendaring

The ADP Center has selected Microsoft Exchange and Outlook 98 for its email and calendaring solution. Exchange was chosen for its scheduling component, compatibility with Microsoft Office products, contact lists, and ability to access email through the Internet.

By having all of our supported clients on one email package, we are able to focus our support efforts. This provides our clients with better overall email service.

5.2 Equipment and Service Acquisition

Members of the OIS Team acquisition group provide hardware and software acquisition service. This service includes consulting and recommendations, as well as long-term equipment planning. This group also provides project planning and telecommunication coordination, as well as keeping inventories and tracking each piece of hardware and software. This tracking was invaluable for our Y2K efforts to determine which hardware systems and software were compliant.

5.2.1 Hardware Installation

Members of the OIS Team provide hardware installation support. They receive, unpack and assemble hardware, install and test software, and deliver the computer to the client's office.

5.2.2 Software Installation

Software installation support is provided by the OIS Team. The OIS Team determines the standard software packages, configuration settings, and set-up criteria. When a client gets a new computer, a member of the OIS Team visits the computer to backup data from the local hard drives and notes printer, IP, and other configuration settings. The new computer is then installed and the OIS Team member restores all of the data and configurations settings. This process insures that the staff member receiving the new computer will be down for a minimum amount of time and that the new computer meets ADP Center standards and works properly. The new system is tested by attaching to the network, running applications, and printing sample documents.

5.2.3 Network Services

The OIS Team acquisition group also coordinates all requests for other services provided by the ADP Center such as access to ADP Central Systems, file transfer, and email. The ADP Central Systems provide access to such information as student, staff, and financial data. Many ISU staff members, regardless of whether their departments utilize our microcomputer support plans, use Central Systems, as this is the centralized repository of administrative information at ISU. The centralized request system simplifies the process and ensures that requests are done efficiently and correctly, and are billed properly.

5.2.4 Payment Planning

5.2.4.1 Lease

To facilitate equipment acquisition for our clients, the ADP Center offers a leasing program in which hardware and software may be leased for 36 months. This plan has a small fee associated with it but is popular with our clients because it allows them to budget a consistent charge over a three year period as opposed to having large equipment costs one year and no costs the following year. After three years, the equipment is ready to be replaced and the department can start another three-year lease.

5.2.4.2 Purchase

Most clients are aware that microcomputer hardware needs to be replaced on a regular basis. The ADP staff encourages clients to replace hardware every three years. A purchase method that works well for our clients is to purchase new equipment for a third of their staff every year. Once again, the costs are consistent from year to year to aid in the budget process and the department is kept up-to-date with computer hardware and software.

5.3 Microcomputer Education

The OIS Team has a staff of specialists and an education facility to help support the university's administrative microcomputer users. This support includes a variety of courses designed to familiarize university personnel with microcomputers and microcomputer software. These courses combine theory with practice and offer many opportunities for hands-on experience.

Some courses, especially those for popular software packages such as word processing applications, are offered monthly; other courses are offered every other month or every third month. A calendar of courses is distributed to allow staff members to enroll in courses.

Last year, 14 different courses were offered on our supported software. A total of 79 classes were held for our clients and 446 ISU staff members attended the classes.

5.4 Help Center

The ADP Center has a Help Center that is fully staffed with four employees from 7:30 a.m. to 5:00 p.m. Monday - Friday. There is reduced support from 5:00 p.m. to 7:30 a.m. Monday - Friday. Weekend support is minimal and provided on an as-needed basis. Supported clients call one number (4-8034) to speak to a person about a computer problem. A solution is provided for 60% of the calls on the first call. All calls are documented by being entered into our Help Center software tracking system, called HEAT by Goldmine Software Corporation. If the call isn't resolved at the first tier support in the Help Center, the call is sent to second tier support for problem resolution. The second tier support includes members of the OIS Team as well as other ADP staff.

The OIS Team members rotate on a daily basis on second-tier support and work to make contact on all new calls within two hours of the time they are received. There are typically two or three staff members on the OIS Team assigned to second-tier support each day and these staff members are empowered to resolve the calls by phone contact, visiting the station in person, or sending a student employee to visit the station.

The Help Center is a very visible and large part of the support program to client offices. Support programs and processes are continuously evaluated to make improvements.

5.5 Desktop Application Support

This support includes answering questions about the functionality of supported application software, as well as answering more complicated questions about integration with other packages and printing.

5.6 Hardware Support

The OIS team also does hardware problem solving for computers, printers, and other peripherals. The ADP Center maintains an inventory of computers and printers that can be used to replace nonfunctioning hardware. This minimizes the downtime for the client.

This team also does physical moves of hardware equipment. Many remodeling projects were undertaken this past summer and having the ADP staff work with clients and telecommunications to plan and coordinate the move insured that ISU staff would be down for a minimal amount of time.

5.7 Consulting Support

On occasion, departments need additional help with complex database applications or other applications. Some examples are a museum inventory database, a judiciary database, and a word processing application that sends highly customized letters to newly admitted students. ADP Center staff are available to assist their clients with these applications by providing recommendations, guidance, and some programming.

5.8 Anti-virus Software Support

ISU has not been immune from the recent virus attacks such as the "ILOVEYOU" virus. Our support includes installing and maintaining anti-virus software and ensuring that the virus signature files and configuration settings are current. Our approach to minimizing computer viruses is to keep the desktop anti-virus software current and to intercept viruses before they reach the Exchange email server.

During virus attacks, the Network Coordinators are informed of the virus and they in turn inform their department clients. If a computer does get infected, ADP Center staff visits the computer to disinfect it and get it back into production.

5.9 Contract Support Staff

Some department offices have a need for a local IT support person. This person may support hardware and software not supported through the regular ADP Center support programs, develop customized software applications, and provide network coordinator functions. The ADP Center contracts with department offices on a full or partial full-time equivalency (FTE) basis. Advantages to the contracting office are continuity of service as staff changes occur, and direct training and knowledge of central services.

6. SUPPORTED CLIENTS

6.1 Computer Support Costs

The cost to support a computer on a monthly basis is \$33 per month or \$396 per year. These costs are broken down to \$20 per month for the microcomputer station support, \$10 per month for

the network connection, and \$3 per month for access to Exchange email services. In addition to these fixed costs are hardware maintenance costs that are dependent upon vendor contracts.

The ADP Center currently has 1,860 microcomputers under the support plan. Another 870 clients are paying support and service fees for access to the ADP Central Systems.

6.2 Network Support Costs

A department pays \$100 per month for support of their network server. There is also a \$500 fee for the initial set-up of a server. In some cases, a department may not be large enough to warrant its own server and in cases like this, the ADP Center offers network file storage space and network services on a shared server with a graduated client rate depending on the number of client stations.

The ADP Center currently has 43 offices that are paying the monthly support fee for network servers.

6.3 Printer Support Costs

A department pays \$10 per month per networked printer. Also, a monthly maintenance fee is charged when the printer's warranty expires.

6.4 Additional Support Costs

If a supported client requests services that are beyond our supported hardware and software guidelines, the ADP Center may do the work for \$40 per hour on a time and materials basis, when ADP Center staff are available. Every hardware/software installation request is charged a \$25 installation fee.

The ADP Center also gets requests to expedite some hardware or software requests. If we are able to accommodate the request, we double the installation fee to \$50.

Offices using contract support staff must commit to the program for the entire fiscal year. Charges are based on the level of technical experience required. A 37% surcharge is added to cover the cost of employee benefits and to provide the contract employee with a desktop workstation and software.

7. UNSUPPORTED CLIENTS

Many people at ISU are aware of the ADP Help Center telephone number and will call for help. All hardware and software components supported by the ADP Center are identified with an inventory identification number, or "blue tag". The staff at the Help Center asks for the blue tag number to check the support status of the client. If the client doesn't pay support, basic help is given along with a recommendation to contact their local computer support person for assistance. As a last resort, support may be given to an unsupported client on a time and materials basis, when staff is available. The charge for this service is \$80 per hour.

8. CLIENT REACTIONS

ADP Center supported clients are happy with the support they receive. They appreciate the equipment acquisition process,

training classes, and Help Center. Even though the initial cost of support seems high, it is very cost-effective. For example, a department with their own server, 20 workstations, and three printers would pay about \$9,500 per year for ADP Center support (not including maintenance costs). On first glance, that may seem like an expensive option, but that dollar amount would not begin to cover the salary of a departmental computer support person. Also, that one departmental support person will have expertise in some areas, but it is very difficult to have expertise in all areas of computing.

Table 1. Support cost example

	Monthly Support Cost	Yearly Support Cost
Microcomputer support 20 @ \$33	\$660	\$7,920
Server support	100	1,200
Printer support 3 @ 10	30	360
Total	\$790	\$9,480

The above are ADP Center support costs and do not include the cost of the hardware and software or the monthly telecommunications fee.

We have had ISU staff members move from a department that is ADP Center supported to a department that is not ADP Center supported. Those people are our biggest fans and request that their new department comes under ADP Center support!

9. FUTURE GOALS

The ADP Center is always looking for ways to improve our communication and service to our clients. We are currently looking at the Web medium for sharing technical information with our clients. To improve our Help Center, we are looking at knowledge trees to shorten the amount of time it takes to resolve problems and to solve more problems on the initial call. We are also looking at better ways to manage client desktops centrally.

A current project that ADP Center staff are working on is the rollout of Windows 2000 and Office 2000. Again, because our supported clients are production users and not cutting-edge users, the staff at the ADP Center thoroughly tests the new applications with all software components to ensure compatibility and functionality. When the new operating system and software are installed, we want it to work properly from the first install. Also, training and Help Center staff must be up to speed at the time of the first install. All of this takes a concerted team effort to ensure the process goes smoothly.

10. CONCLUSION

It is true that there is no such thing as free support, however, by paying a little, you can get a lot!