

# Putting Help Where the User Is- A Desktop Computer Support Strategy

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## ABSTRACT

As the personal computer becomes a more integral part of the faculty member's job, the increasing level of day-to-day computer support - often without increases in full-time staff - becomes an important issue. Bloomsburg University's Center for Academic Computing addressed the challenge of providing quicker and more individualized support for faculty, by utilizing work-study student resources and some shifts in current staff job duties. A new desktop support system was created using teams which included student consultants, staff members and faculty department liaisons. Student consultants were positioned as a first line of support within each faculty office building. These students were given intensive training and placed in their own offices within the supported building area. Each student consultant now reports to a full-time staff member who guides and oversees him or her. The staff member also provides a second level of support for that area. Designated faculty serve as communications links with each academic department. Overall coordination and management of the program is provided by one of the secondary support personnel. This paper describes the development of the program, the implementation phase, and the results of a satisfaction survey of the faculty that was taken one year after the start of the program.

## Keywords

Desktop support, customer service, faculty computing, team-based user support.

## 1. INTRODUCTION

### 1.1 University Profile

Bloomsburg University is a public, four-year coeducational institution and a member of Pennsylvania's State System of Higher Education. Total enrollment is approximately 7,500 students with over 400 faculty members. Faculty offices are

spread across campus in nine different buildings. The faculty computers represent a mix of 25% Macintosh operating system and 75% Windows operating system. All computers are connected to the University's Ethernet backbone with access to the Internet, and Windows-based computers run most software programs from a Novell network.

### 1.2 Campus Computing Organization

Computer support on Bloomsburg University's campus is spread across two departments, the Center for Academic Computing and Computer Services. Computer Services supports mainframe processing, network infrastructure, administrative network servers, telephone service and administrative office desktop support. The department is also responsible for the GroupWise server, which is the email system used by all University faculty and staff.

### 1.3 Center for Academic Computing

The University's Center for Academic Computing (CAC) provides support for student email, computer labs, computer classrooms, residential hall computing, academic software, and faculty desktop computers. CAC is composed of the director and seven staff members. The Center also employs work-study students to staff student labs and to support CAC staff members.

## 2. FACULTY DESKTOP SUPPORT

### 2.1 Previous Support Strategy

CAC staff members' responsibility for faculty desktop support was originally divided by specialization. Some staff members handled hardware support, some specialized in Macintosh support, others handled networking problems or different types of software (i.e. SPSS, word processing, etc.). There was no central location to request help from, and this led to confusion among faculty who did not know who to call. To handle this problem a computerized mainframe program that the Computer Services department used for administrative computer support requests was extended to faculty members. Requests could then be routed within CAC to the appropriate staff person. The new system addressed the faculty members' problem of how to ask for help, but difficulties sometimes occurred when their computer was down and they were unable to enter a request.

As an example of how this system worked, if a faculty member had a problem reading a file on a floppy disk he or she would enter a service request through the new system. The request would be routed to the appropriate CAC staff person who scheduled a time for a student worker to check out the problem in the faculty member's office. If the student worker determined it

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was a defective diskette drive, the request was routed to the hardware personnel. If he could not determine the problem, the request was escalated to a second level software support staff person. The second level software staff then either fixed the problem or, having determined it was indeed a hardware problem, forwarded the request to hardware staff for resolution.

Some faculty desktop problems originated in the mainframe or from software maintained by Computer Services. This added yet another call to Computer Services, and the request would be passed on to a staff person in that department who could handle the problem. In this entire process there was no single support person responsible for tracking if and when the request was completed. A small percentage of jobs were lost between the cracks when they were being transferred from one support person to another, and the faculty member would have to call several times to find out the progress on the request.

## **2.2 Challenges**

Though this system did work, there were still problems with it. The faculty felt frustrated by the stream of people coming in to address a problem, the amount of time it took to resolve some problems, and the uncertainty over what progress was being made on their problem. Overall the faculty members perceived support service to be erratic and relatively slow.

More and more, faculty members were using computers to create and present class content. This required a faster response to problems and less downtime of their desktop computers.

At this same time, CAC was also providing workshops for faculty members to demonstrate new technology, but these workshops were poorly attended, even though faculty members continually stressed a need to keep up with newer software. The most frequent reason given for not being able to attend was that the workshop was given during one of their class times or office hours.

## **2.3 New Program Objectives**

A close look was taken at the support system that was in place and the duties held by the staff and students within CAC. We were fortunate to have been granted a new half-time position for faculty support. It seemed like a good time to do some reorganizing to allow us to provide more efficient faculty support. Some objectives we had in mind were:

- One point of contact for any type of support request
- Acknowledgment of problem reports within 24 hours
- Timely resolution of problems and delivery of instructional help
- Closer proximity of help to the faculty and problem at hand
- Better communication between faculty and CAC

## **3. NEW SUPPORT STRATEGY PROGRAM**

### **3.1 Overview**

The Faculty Building Consultant (FBC) program was initiated to meet these objectives and provide better service to the faculty. A new team approach was implemented based on locations of faculty offices. These were contained in nine buildings across campus. Among the nine buildings, two smaller office buildings were redistributed to form seven building areas. A team was put in place for each building to provide better computer support and better communications between CAC and faculty members.

Under this new organization, each team was headed by a staff consultant (staff FBC), and included a student consultant (student FBC) and a faculty liaison from each academic department within that team area. The staff FBCs were responsible for coordinating the faculty support in their area, for supervising the student FBCs, and for providing second level support for hardware and software. The student FBC was responsible for first level desktop support for any problems as well as one-on-one training and help with questions that a faculty member might have. They forwarded any unresolved problem to the appropriate second level support person and tracked the progress of the request. In order to provide quicker and more convenient help, student FBCs used an email account on the same GroupWise system as faculty members, and had a phone and an office within their areas. The student FBCs were available during ten office hours each week.

An important part of each team was the faculty liaison. The chairs of each department were to appoint one of their faculty members to serve as a FBC liaison. These FBC liaisons acted as intermediaries between CAC and their departments. FBC team meetings kept them apprised of upcoming technology changes and developments. FBC liaisons also reported problems experienced in their departments and conveyed departmental computing goals to CAC.

One of the most important aspects of this new system was that faculty members no longer entered a computerized request or called a CAC staff person. Faculty members requested help directly from the student FBC in their area. That student was responsible for the overall resolution and follow up to the request. The student FBC was a key player in the new strategy. Faculty members could call the CAC for emergency help when the student FBC was not available, but the student FBC in the faculty's area was notified of the request and responsible for tracking it. The plan was for the student FBC to become a fixture in their building and to form close bonds with faculty members, who would feel they were getting more personalized service.

## **3.2 Resource Needs of the New Program**

### *3.2.1 Staff Job Reassignments*

With the new program, full-time staff members needed to be cross-trained to provide both hardware and software support. Before the start of this program, CAC staff duties were very specialized. When a request for help came in, it was not unusual to hear, "That's not my job, that's a network problem." And "network problem" could be replaced with "software problem" or "hardware problem" as long as it was not an area that the staff member was responsible for. These remarks were made in jest, but they do indicate the enormous internal change the new system represented for the department, and the reluctance of CAC staff to step out of their area of expertise.

### *3.2.2 Hiring of Competent Students*

For the program to succeed, students hired as FBCs had to be carefully selected. Luckily there was already a pool of technically trained students working for various CAC staff members. The students were selected based on good communication skills as well as technical skills. They also had to have the confidence to deal directly with faculty.

### *3.2.3 Support of Deans and Chairs*

Several needs that could not be met by CAC itself were identified: office space in the faculty office buildings; extra work-

study funds for student's pay; faculty liaisons appointments; and support from upper faculty management. These were all commitments that needed to come from the college deans and from department chairs. The CAC director successfully petitioned these constituents to support the new program, including contributing funds to pay for student wages. This "buy in" by the deans and departmental chairs was instrumental to the success of the program.

## **4. FORMATION OF FBC TEAMS**

### **4.1 Program Coordinator**

A great deal of preparation preceded expansion of the support strategy. Each part of the team had to be made aware of their roles and provided the skills and information needed to become an integral part of the team. The program coordinator took responsibility for general cohesion of the program.

A new internal job database for logging faculty requests was created. This database was accessible over the campus network to all student FBCs and staff FBCs. The database tracked all faculty information including operating system, hardware, ip number, and so forth, as well as date of request and completion date. The type of request was also recorded as a "problem," a "training session," or a "hardware/software upgrade." The database was not available to faculty as all of their requests were now made directly to the student FBC in their area.

The program coordinator also made sure that the faculty computer support needs were met, and measured the degree of satisfaction of the FBC program. This assessment is conducted through a yearly survey of all faculty members and through a feedback form that was left in faculty offices after completion of requests.

### **4.2 Student FBCs**

This new system depended heavily on responsible students who had strong communication skills, confidence in their job abilities and a commitment to doing a job well. The most desirable quality was dependability. We could improve communication skills and we could teach the technical skills that lead to confidence, but dependability to show up for office hours, to keep track of jobs in the database and to follow up with faculty on job progress was necessary from the start.

We now try to look for freshmen so that they can establish a long-term bond with the faculty within the area they would support. We have also found that older students sometimes tend to be good choices since they have had previous experience with job commitment.

As the program progressed, new student FBCs were hired and started out under an apprentice program. The new students worked with a current student FBC for at least a semester before going out on their own. Student consultants were provided a handbook which specified their responsibilities, a phone list of who to call for particular problems in either CAC or Computer Services, a section on typical problems and their resolution, and informational handouts that they could duplicate to give to faculty members. The students worked ten scheduled office hours and four to six more hours during the week to resolve problems or to work on upgrades. An important part of their job was high visibility, so they also kept faculty informed of their office hours by email announcements, signs on their office door, and messages in faculty mailboxes. Since this position required a higher level of responsibility, students who worked in the FBC program

received a nominally higher rate of pay than other CAC work-study students.

Meetings of all student FBCs were convened by the coordinator as needed to keep them up to date on current problems and resolutions, and to make them aware of plans for upgrades or technology changes. These meetings also fostered camaraderie among the students, so they could work well together and could look to each other for new problem resolutions.

### **4.3 Staff FBCs**

Four of CAC staff were reassigned as staff FBCs. Two staff FBCs were given responsibility for more than one support team. All had previous experience with student workers and were instrumental in the selection of students to support their areas.

Cross training of staff in technical areas where they were less knowledgeable took place as problems they could not handle came up. All staff shared their expertise with each other as the need arose. Gradually staff FBCs accepted a broader range of responsibility for support. However, there were still times that a problem required a specialty expert. For instance if an especially hard-to-diagnose hardware problem arose, then a more hardware experienced staff person would go with the regular staff FBC during the problem resolution. This process allowed staff FBCs to gain the degree of knowledge they required without having it seem forced upon them.

Regular meetings were held among the staff FBCs to keep up knowledge of new problems, plan for changes, and coordinate upgrades. During these meetings, uniform agendas were drawn up for all full team meetings, so that everyone would have the same information.

### **4.4 Faculty Liaisons**

Faculty liaisons attended the full team meetings, which were held at least once a semester. These meetings provided the liaisons information to take to their departments to make colleagues aware of important campus technology news. Conflicting faculty schedules made these meetings difficult to organize, and so in larger buildings, where there were more faculty liaisons on the team, multiple meeting sessions were held so that most faculty liaisons could be present at one of them. The staff FBC chaired these meetings, and all attending were given a detailed copy of the agenda so that they could share it in their academic department meetings. If a faculty liaison could not make a meeting, the staff FBC would try to meet one on one with him or her, or at the very least see that the liaison got a hard copy of the meeting agenda.

These meetings opened a direct two-way communication link between CAC and the academic departments. Though there were other avenues of communication on campus, sometimes the FBC team meetings were the first time that CAC was alerted to new initiatives that a department might have been thinking of, or of particular technology problems that might need to be addressed.

## **5. IMPLEMENTATION**

### **5.1 Trial Program**

A trial program was initiated in two of the seven building areas during the spring 1998 semester. A student consultant was set up in each area. One staff person supervised the students and provided second level support. Though the trial was limited in scope, it was a success and the program was expanded to all faculty office buildings in the fall of 1998.

## 5.2 Rollout of Program to Entire Campus

The start of the program across campus has made a dramatic change in how faculty problems and requests are handled. With a typical request for help under the new program, a faculty member now phones or emails the student FBC, or stops the student in the hall. The faculty members know the student by name. If possible, the problem is resolved immediately. If the problem is not resolved, the student sets up an appointment or makes other arrangements to enter the faculty office. Since the faculty members know the student FBCs so well, a large number of them trust the students to fix the problem without their being present. The student enters the request into the job database as soon as possible.

If the student FBCs cannot fix a hardware or software problem, they contact their staff FBC. When necessary, they contact the appropriate person in Computer Services for other resolutions. In all cases, the student FBC tracks the progress on the problem and stays in touch with the faculty member to keep him or her informed. When it is resolved, the request is marked "completed" in the job database.

Both student and staff FBCs have access to the job database to check on the number of jobs open and to enter job progress information. The coordinator periodically prints reports on all areas to check if any building areas might have a larger than usual number of requests. If needed, student FBCs from other areas may be assigned during their non-office hours to help until the rush is over. This sharing of resources keeps the amount of time to fill faculty requests down to a minimum.

## 5.3 Changes Since the Start of the Program

One year into the program, Academic Computing experienced the loss of the half-time staff FBC position, and some changes were made. By agreeing to service administrative Macintosh computers, we gained the services of a desktop support person from the Computer Services department as a staff FBC for one of the team areas. To handle the extra load of Apple computers, the CAC director, an Apple expert, stepped in to help with the increased amount of second level Apple support.

The coordinator of the program also took on another building area to make up for the personnel loss. One student FBC was moved from a building area to work directly with the coordinator of the program. In the case of one building area that housed the largest number of faculty offices, an additional student was added, and both student FBCs shared duties and expanded office hours.

## 6. EVALUATION OF PROGRAM

The first to accept the new program were the academic department secretaries. They immediately realized the great resource now available "down the hall." They started to refer faculty to the student FBCs immediately and were influential in having the program accepted by the faculty. Rumblings from the faculty about poor support dwindled, and we started to hear good things from them.

The feedback forms left in the faculty offices after each visit gave us a way to monitor faculty satisfaction on an ongoing basis. There was a very high rate of return. Most of the comments spoke highly of our student FBCs, but they also gave us a means of spotting and resolving any program problems right away.

At the end of the first year of the program, a survey was sent to all faculty members; this was followed up by a second survey this past spring semester. The return rates of the surveys were 28% in 1999 and 35% in 2000. We were very pleased with the high number of responses, since we felt that it indicated the importance with which the faculty regarded the program. As indicated in Table 1, faculty in both years rated the responsiveness of their student FBC and the timeliness of the response to a request very high. Over 95% of the responses were for the two highest scores possible. The second year the percentage of faculty that rated the highest possible score had risen over 15% for both questions. These numbers reflect what we had already been hearing from the faculty, that they now felt that their problems were being addressed and resolved not only adequately, but also in a timely manner. We believe that their reaction is also based on the fact that they now are kept better informed during the resolution of their problems. Faculty members also appreciate that the student FBC is located in their area and available for help whenever it is needed.

**Table 1. Faculty Survey Results**

<i>How responsive was your building consultant to your request?</i>					
	1	2	3	4	5
2000 survey	90.2%	5.3%	3.8%	0.8%	0.0%
1999 survey	74.3%	19.8%	4.0%	1.0%	1.0%
<i>Are your requests fulfilled in a reasonable amount of time?</i>					
	1	2	3	4	5
2000 survey	80.3%	15.2%	2.3%	2.3%	0.0%
1999 survey	63.7%	22.5%	11.8%	0.0%	2.0%

NOTE: 1 is responsive and 5 indicates not responsive

## 7. FUTURE PLANS

Our future plans for the FBC program include increasing the amount of technology training given by the student FBCs in the faculty offices. In order to facilitate this, we are providing training for our student FBCs to become Microsoft Office User certified. We also will be offering them training in Microsoft FrontPage to help faculty with web page development.

Our greatest challenge will be to maintain the high level of user satisfaction that was indicated by the surveys.