5
Methods of Implementing Help Desk Services

People seldom refuse help, if one offers it in the right way.
—A.C. Benson

Key Findings

- Most institutions provide all help desk services from a single central IT help desk.
- Most help desk managers report to the head of a central IT area, not the CIO.
- Help desk services are most frequently offered by telephone, e-mail, and in-person interaction either at the help desk location or at the user’s location. Interaction at the user’s location is significantly more common at smaller institutions.
- Outsourcing of help desk services is relatively rare, with just over 16 percent of respondents outsourcing any help desk services. Among those, a strong majority is outsourcing 25 percent of services or less.
- Over two-thirds of help desks are available more than standard campus business hours, including nearly 5 percent that are available 24 hours a day, seven days a week.

In this chapter, we report on the characteristics of our respondents’ central IT help desks. While details vary, in terms of mission and focus, they have much in common, as we will see. We asked about the number of help desks at each respondent institution and their organizational affiliations. For the help desk with which each respondent was most familiar, we asked for details about management reporting line, the services offered (and not offered), the status of outsourcing of help desk services, and the availability of those services along several dimensions.

Help Desk Organization

The term help desk means different things at different institutions. All of our respondent institutions recognized the term and were able to answer questions that assumed the existence of a discrete help desk entity. Not all institutions refer to the help desk by that name, though. At some institutions, the help desk is called the technology support center; at others it may be called the IT service desk. At some institutions, the help desk may be more a functional entity than an organizational one, and may not have a name of its own but rather be subsumed under a broader entity, such as customer service or user support.

As we saw in Chapter 4, 11.5 percent of respondent institutions have multiple central IT organizations. In some cases, each of these
organizations has its own help desk. Nearly half of respondent institutions have unit-specific (not central) IT organizations. Some of these IT organizations also have help desks of their own. Where there are multiple help desks, we assume there may also be different policies, practices, and priorities.

Rather than ask our respondents to attempt to aggregate information about all their campus help desks, we asked them to answer our survey questions from the perspective of that central IT help desk with which they were most familiar.

How Many Help Desks?

Just under three-quarters (73.6 percent) of our respondents reported having only central IT help desks and no unit-specific ones (see Figure 5-1). The remainder had at least one central and at least one unit-specific help desk.

Because 11.5 percent of our respondents reported having more than one central IT organization, it follows that some respondents might also have more than one central IT help desk. We asked that question and found that almost 24 percent of all respondents have more than one (see Figure 5-2). That is almost twice the percentage that reported having more than one central IT organization. In general, we find that when a single central IT organization has multiple help desks, they differ from each other mainly in the constituencies they serve or the services they offer.

The number of central IT help desks varies significantly with FTE enrollment. While 83 percent of respondent institutions with enrollments of 4,000 or less have only one central IT help desk, three-quarters (75.3 percent) of those between 4,001 and 15,000 do. At institutions with more than 15,000 FTE enrollments, only two-thirds (66.2 percent) have a single help desk. We found no significant association between number of central IT help desks and Carnegie class.

Who’s in Charge?

We inquired about the reporting line of the central IT help desk manager and found that at the majority of respondent institutions (54.0 percent) the manager reports to the head of a central IT service area but not the CIO (see Figure 5-3). Those reporting directly to the CIO or equivalent make up another 3 in 10, while nearly all the remainder (17.3 percent) report to another IT supervisor or manager. At two respondent institutions...
the help desk manager reports to a non-IT manager, and at two others the help desk manager has yet a different reporting line.

The central IT help desk manager’s reporting line was significantly associated with FTE enrollment, as Figure 5-4 shows. It was nearly twice as common at smaller institutions for the help desk manager to report directly to the CIO (40.8 percent) as at medium-size institutions (21.6 percent), and almost four times as common as at large institutions (10.8 percent). Presumably this reflects flatter IT organizational structures at smaller institutions. As we will see in later chapters, though, several help desk service outcomes are also associated with FTE enrollments; the finding reported here hints that the help desk manager’s direct responsibilities to the CIO may influence some of those enrollment-related outcomes.

**Help Desk Services**

Not all central IT help desks provide the same services. To get an idea of the scope of services provided by the help desks our respondents were reporting on, we asked
how frequently that help desk provided assistance with 12 common infrastructure and identity management elements and 11 common IT applications.

What the Help Desk Does

Nearly all respondent institutions’ central IT help desks offer their clients assistance with most of the items we asked about. Considering infrastructure/identity items, 72.5 percent of respondents said they offered assistance with all 12; 18.9 percent offer assistance with 11 of them. Considering application items, 63.9 percent of respondents said they offered assistance with all 11; 17 percent assist with 10 of them.

Figures 5-5 and 5-6 present detailed results. Note that the percentages in these charts are for respondent institutions that offer assistance with the infrastructure/identity element or application in question. When calculating these percentages, we excluded respondents who said their institutions did not offer assistance with an item. (We discuss these in the next section.)

Two identity management items, password changes and user account generation, top the list of infrastructure/identity assistance mean frequencies. Numerous institutions have automated both of these processes,7 but the findings here suggest they still consume substantial help desk resources. The third identity management service element we inquired about—username changes—was relatively less frequently provided. Also provided very often or often by majorities of our respondents are assistance with operating system software, central hardware, and the data network. These relatively high values are not unexpected, given the complexities of operating systems (and the security vulnerabilities of Microsoft Windows in particular), the users’ relative inability to self-help with central hardware issues, and the criticality of the data network to most IT applications.

Reported frequencies for voice network assistance top the lower half of our findings, perhaps reflecting that while the voice network is arguably as crucial as the data network, it is also usually less complex, more stable, and more familiar, thus requiring less help desk assistance. The slightly lower frequency of assistance with other university-owned hardware suggests that user-
owners of the current generation of desktop hardware, in particular, can self-help with considerable frequency.

Both security consultations and security incidents tend to be episodic phenomena, and so their relatively low assistance frequencies are not surprising. Relatively low frequencies of assistance with presentation technologies may reflect their more limited penetration or relative reliability, or both.

Providing assistance with personally owned hardware is a particularly difficult issue for public institutions, as we discuss below in “Choosing What Not to Do.” This may help explain the relatively low frequencies with which our respondents provide assistance for it.

Of all the applications we inquired about (Figure 5-6), electronic mail is the most frequently supported by our respondents’ central IT help desks. The percentage of “very often” and “often” responses exceeds those for any other application or infrastructure/identity element we asked about.

![Figure 5-5. Frequency of Help Desk Assistance with Identity/Infrastructure Elements](chart.png)
Three application types form a frequency cluster of “very often” and “often” responses totaling over 60 percent. These are personal productivity applications such as e-mail, Word and Excel; calendaring; and Web applications. Another cluster with equivalent frequencies above 50 percent includes campus instructional applications and staff and student use of the campus administrative system.

Of the remainder, assistance with library applications, applications hosted off campus, and research applications have frequencies of “very often” and “often” responses totaling less than 15 percent. Assistance with program-
Programming languages, with a “very often” and “often” frequency of 5.8 percent, is the least commonly provided of all our applications.

With the exception of library applications, all those on our list that are part of daily life for most faculty, staff, and students have mean frequencies of assistance well above “sometimes.” This suggests that library applications—presumably a part of daily life for most of the campus—are supported in some other way, such as through the library’s own help desk or reference desk.

Choosing What Not to Do

Substantial numbers of institutions reported offering no assistance with several infrastructure/identity items and applications. In all cases these are the support items for which Figures 5-5 and 5-6 report the lowest frequencies of assistance. Infrastructure elements for which more than 5 percent of respondents reported offering no assistance (Figure 5-7) included only privately owned hardware and the campus voice network.

Of our key demographic classes, only institutional control was meaningfully associated with provision of assistance for privately owned hardware. Two-thirds of the institutions that say they do not offer this type of assistance are under public control, a substantially greater portion than the 57.8 percent that public institutions represent in the overall survey population. A practice of not supporting privately owned hardware is more likely to be necessary in public institutions where state law and institutional policy may prohibit use of public resources for private benefit and where sensitivities to

![Figure 5-7. Infrastructure/Identity Elements for Which Help Desk Assistance Is Not Offered](image-url)
competition with the private sector are likely to be stronger.

Institutions reporting that their help desks don’t offer assistance with the campus voice network had demographics that tracked very closely with the overall population demographics. Findings for this practice were not strongly associated with any of our other major data items.

Among application assistance items (Figure 5-8), more than 15 percent of institutions reported not providing assistance for three items: applications hosted off campus, research applications, and programming languages.

Among respondent institutions whose help desks offer no assistance with campus research applications, 90.7 percent are in the associate’s, bachelor’s, and master’s Carnegie classes. Doctorals make up just 9.3 percent of that group, though they make up 29.1 percent of our overall sample population. It comes as no surprise that the help desks at doctoral institutions at least sometimes assist with research applications.

Help desks that offer no assistance with programming languages are distributed uniformly across all our demographic classes.

**Where Help Is Provided**

The term help desk would seem to suggest a static, furniture-centric organization with a helper on one side and a recipient on the other. Even the IT Infrastructure Library framework fails to fully dispel this suggestion, and simply replaces help desk with the slightly broader-sounding service desk. In fact, as our data show, the artifacts most closely associated with the help desk are more likely to be a telephone and a computer screen than application.

**Figure 5-8. Applications for Which Help Desk Assistance Is Not Offered**

- Applications hosted off campus (N = 450)
- Campus research applications (N = 449)
- Programming languages (N = 451)
- Campus library applications (N = 452)
- Student use of administrative applications (N = 451)
- Campus calendaring applications (N = 451)
- Campus instructional applications (N = 452)
- Campus Web applications (N = 448)
- Employee use of administrative applications (N = 447)
- Campus e-mail applications (N = 453)
- Personal productivity applications (N = 452)
a desk. Some institutions acknowledge this telecommunications focus by using the term help line, though that may be just as limiting as help desk.

Figure 5-9 presents the frequencies with which our respondents’ help desks use seven mechanisms for communicating with their clients. We refer to these as help desk service modes.

The most routinely used help desk service modes are telephone and e-mail. Most of our respondents also routinely use in-person interaction at the help desk location and in-person interaction at the user’s location. All of these are classical service modes, and it would be surprising if they were not in common use among our study population.

In sharp contrast are the three interactive electronic text communication modes we asked about: Internet-based text/instant messaging, chat room, and cell phone–based text/instant messaging, which fewer than 10 percent of our respondents routinely use. While a majority of respondents (56.8 percent) either use or plan to use Internet-based text/instant messaging to communicate with clients, majorities have no current plans to use chat rooms or cell phone–based text/instant messaging.

This finding is a bit surprising in light of the data from the 2007 ECAR study of student use of IT, in which 84.1 percent of student respondents say they use instant messaging with a median frequency of “daily.” At the University of Alberta, chat is a mainstay of the central IT help desk. AICT Helpdesk Analyst Brent Voyer reports excellent user satisfaction with the service: “When people call us on the telephone, they’re sometimes put on hold for long periods during busy times and don’t know when we will be able to get back to them. With chat, when people hit the IT center’s home page they see the chat option prominently displayed, along with a graphic representation of its status, which is quite a bit more encouraging than the telephone inter-

![Figure 5-9. Help Desk Service Modes](image-url)
face.” At Alberta, e-mail and chat account for about 73 percent of the academic help desk’s 22,000 annual client contacts.

Current severe limitations on cell phone–based text message length (160 seven-bit characters) may help explain our respondents’ lack of interest in that particular technology.

Few help desk service modes were strongly associated with our key demographic variables, but those that were provide interesting insights. As Figure 5-10 shows, in-person interaction at the user’s location varies significantly by FTE enrollment. (A similar and statistically even stronger association exists with Carnegie class.) Nearly two-thirds of smaller institutions routinely provide help desk services at the user’s location. The frequency drops somewhat among medium-size institutions and drops more dramatically—to just over a third—at the largest ones.

At all three FTE enrollment levels, about a quarter of respondents occasionally provide help desk services at the user’s location. At all three levels nearly no respondents report planning to offer help desk services at the user’s location in the future. Among respondents asserting that they have no plans to use that service mode, frequencies increase dramatically from the smallest institutions through the largest ones, more than doubling at each step.

This pattern of responses may reflect a progressively less personal service orientation at larger institutions, although many other explanations are also possible. For example, the data may simply suggest that the “house calls” service mode does not scale well, given per capita resource constraints at many larger institutions. Or the more extensive geographies of larger institutions and the cross-campus travel time they add to the resolution of users’ problems may make that service mode inefficient.

In the context of Carnegie class, the doctorals provide help desk services comparatively rarely at the user’s location and do not plan to evolve in that direction. At least 92 percent of institutions in each of the other classes either routinely or occasionally provide help desk services in this mode, compared with only 68.8 percent of doctorals.
Support professionals at two very different institutions provide perspectives on this mode of support. Christine Murphy, systems planner at the University of Delaware (20,000 FTE), explains, “The central IT organization reaches out to the other related IT services providers in many different departments through its Campus IT Associate program, which places an IT staff member who has the technical expertise in the appropriate discipline in the various departments. The goal is to help the departments to be onboard with central IT.”

At Dartmouth College (5,600 FTE), Consulting Services Manager Ellen Young describes her institution’s personal support model in this way: “With our personal model, the faculty or staff member always deals with the same IT consultant. The IT consultants are assigned by department, and each IT consultant has multiple departments, depending upon the size of the departments. They are physically located in the department.... The IT consultant develops relationships with the department’s faculty/staff. He or she becomes an integral part of the department that he or she supports.”

Despite their differences in size and institutional control, these two institutions have found that “high touch” support methods help them deliver excellent help desk services.

Given the example set by many prominent retail merchants offering online chat as a high-tech customer service option, we were surprised that 6 in 10 of our higher education IT respondents expressed no plans to offer such services. Those results vary significantly with institution size. The breakdown in Figure 5-11 shows that institutions with fewer than 4,000 FTE enrollments are the least inclined to use chat rooms for help desk services. Within this group, slightly more than two-thirds report not planning to adopt that service mode, and only 10.8 percent now use it routinely or occasionally. By contrast, fewer than half of institutions with more than 15,000 FTE enrollments report not planning to use chat rooms for help desk services, and currently 27.4 percent—well over twice as many as at the smallest institutions—use it routinely or occasionally.

The findings in Figures 5-10 and 5-11 hint at a dichotomy between large and small institutions in which small institutions more frequently opt for a higher-touch mode of help desk service delivery while larger institutions somewhat more frequently opt for high-tech modes—not face-to-face at the user’s location, but still with a degree of interactivity. Of course, to keep these speculations in perspective, we must recognize that even the respondent institutions with the largest enrollments are more than four times as likely to provide help desk services at the user’s location as they are to provide them via chat.

**Outsourcing**

Not all central IT help desk services are provided in-house. Outsourcing may offer such advantages as extended hours of availability, standardization of service quality, and relief from management headaches such as dealing with staff turnover, coordinating staff training, and managing employees during late-night shifts. Our data, portrayed in Figure 5-12, indicate that outsourcing of central IT help desk services is still far from a pervasive phenomenon. Only 16.3 percent of respondent institutions are outsourcing any of their help desk services, and the bulk of those (12.6 percent overall) are outsourcing 25 percent or less of their services.

For the last four years, Colgate University has outsourced all its tier-one help desk support to Advantage Communications of Prince Edward Island, Canada. For institutions that are considering outsourcing, Colgate’s chief information technology officer, David Gregory, advises, “Outsource your non-strategic services and focus your staff on what
is strategic to your institution…. I would be hard-pressed to imagine a strong argument as to why tier-one support would be considered strategic.” In higher education, Gregory explains, much of the resistance to outsourcing has to do with the academy’s sense that its IT support needs are different from those of the commercial sector. “But the bottom line is: We are not different,” he concludes. “We have the same PCs and Macs on our desktops as they do in industry. Where we are different is in how we put them to use. That’s why it’s important to get your on-campus support staff trained to assist faculty and staff with their discipline-
specific problems. Those are the strategic areas in higher education.”

At Bowdoin College, CIO Mitch Davis expresses concern along slightly different lines. “Outsourcing takes the empathy out of IT support,” he says. “The only way for the help desk to be successful is to be empathic. In an outsourced situation, you are getting answers, not solutions. An outsourced help desk lacks the ability to react and respond to a client’s needs in the institutional context.”

Arguments for and against outsourcing are discussed further in the case study Bowdoin College and Colgate University: Using the Help Desk Strategically to Revitalize the IT Organization, which accompanies this report.

Help Desk Availability

To help us understand more about the role of the help desks our respondents were reporting on, we asked when the help desk was available and whether there were constraints on the populations the help desk served. We found that for the most part, respondent institutions’ help desks were available beyond standard campus business hours and that services did not vary on the basis of the client’s university class (faculty, staff, or student) or departmental affiliation.

Availability in Time

We asked on which of the following general schedules the help desk was available to its clients:
- less than standard campus business hours,
- standard campus business hours only,
- more than standard campus business hours but less than 24 x 7, or
- 24 x 7.

Responses appear in Figure 5-13. Very few of our respondents’ help desks are available less than standard campus business hours. Somewhat fewer than a third are available during standard campus business hours only. The majority of respondent institutions make their central IT help desks available more than standard campus business hours but less than 24 hours a day, seven days a week. Those that have made their help desks available on a 24 x 7 basis are few: only 4.9 percent of our sample.

Availability varies significantly by both FTE enrollment and Carnegie class as well as by help desk budget and staffing levels, which we discuss later in this chapter. Because the general data pattern is the same for all these variables, Figure 5-14 portrays only the data for enrollment.

In only two categories do we find respondent institutions with central IT help desk availability of less than standard campus business hours—those with 2,000 or fewer FTE enrollments and those with 8,001 to 15,000. Availability limited to standard campus business hours declines across the chart, from 44.6 percent for the smallest institutions to only 17.6 percent for the largest ones. Percentages increase most of the way across the chart for help desks whose availability is more than standard campus business hours but less than 24 x 7, from 51.5 percent for the smallest institutions to 72.7 percent for institutions between 8,001 and 15,000 FTE enrollments. For institutions with enrollments greater than 15,000, the percentage of respondents whose help desks are available more than standard campus business hours but less than 24 x 7 is lower than for the next-smaller enrollment category, but it is here that we see the bulk of responses for 24 x 7 availability, reaching 13.5 percent among these largest institutions, a factor of almost four greater than in any other category.

Again, the pattern is similar for Carnegie class, where doctoral institutions most frequently have 24 x 7 help desk access. Understandably, institutions with the largest client bases, budgets, and help desk staffs also are the most likely to report 24 x 7 access. The degree of outsourcing of help desk services is also significantly associated with availability, with 5 of the 12 institutions (41.7 percent) that
outsource three-quarters or more of their help desk services reporting 24 x 7 availability.

Indiana University has offered 24 x 7 support for more than five years, according to Sue Workman, associate vice president for support. “When the Indianapolis and Bloomington IT support organizations merged, we found that the level of service we offered at that time didn’t match the need. Indianapolis classes are often taught at night, and IT support is needed then. Also, when the Information Commons opened its 24 x 7 operation in the Bloomington campus Library, we took on support responsibility for the 300 workstations there. It is really busy until 3:00 a.m.” Workman’s advice to institutions
considering moving to a 24 x 7 operation is, "Just do it. It really did shock me how many calls we got after 9:00 p.m."

**Availability by Client Type**

We asked if support from the central IT help desk varied according to the user’s class (faculty, staff, student). For almost two-thirds (64.3 percent) of respondents’ help desks it does not. This finding was not significantly associated with any of our standard demographics.

When asked if support varied according to the client’s departmental affiliation (such as administrative, instructional, or research), fully 85 percent reported that it did not. A significant association exists between this finding and Carnegie class, as illustrated in Figure 5-15. At just over a quarter of doctorals, support does vary by the client’s departmental affiliation. This is more than twice the frequency at master’s and associate’s institutions, and almost four times the frequency at bachelor’s institutions. Thus it appears that greater complexity of academic programs may influence institutions to deploy more specialized help desks.

**Summary and Implications**

IT help desk distribution resembles that of IT organizations. About three-quarters of our respondents have only central IT help desks; the rest also have one or more unit-specific help desks. Three-quarters of institutions have only one central IT help desk; most of the remainder have two. Only one institution in 10 has more than two central IT help desks.

The reporting line for the help desk manager varies by institution size. At the smallest institutions, 4 in 10 help desk managers report directly to the CIO, while only 1 in 10 does at the largest institutions.

Most help desks provide a range of infrastructure and application assistance. The top infrastructure/identity management services our respondents’ help desks offered are password changes, user account generation, operating software assistance, and help with the campus data network. Services provided...
least often include assistance with personally owned hardware and with the campus voice network. The top applications that our respondents’ help desks support are e-mail, personal productivity tools such as Word and Excel, and calendaring. Least often supported are applications hosted off campus, research applications, and programming languages.

Help desk services are most frequently offered by telephone, e-mail, and in-person interaction at either the help desk location or the user’s location. Less used service modes are instant messaging, chat, and text messaging. The most popular modes involve more traditional means of communication, two electronically mediated and two not. The least popular modes are less traditional, at least among our respondents, most of whom we assume are a generation older than the students they serve. The service mode of in-person interaction at the user’s location is most common at smaller institutions, perhaps reflecting a more personal approach to service in smaller academic communities as well as a geographical layout that makes “house calls” efficient. For similar reasons, perhaps, online chat is used most frequently at the largest institutions and is being implemented or is planned most frequently at midsize institutions.

Outsourcing of help desk services is relatively rare among our respondents, with just over 16 percent of respondents outsourcing any help desk services; a strong majority of those outsource 25 percent or less of their services.

More than two-thirds of our respondents’ help desks are available more than standard campus business hours, including nearly 5 percent that are available 24 hours a day, seven days a week. Most of the latter are at institutions with more than 15,000 FTE enrollments. It is usually the smaller institutions whose help desks operate only during regular business hours.

Help desks at respondent doctoral institutions are more than twice as likely as those at other Carnegie classes to provide different levels of service based on the client’s departmental affiliation. This may reflect the presence of alternative means of support at these academically complex institutions—unit-specific IT organizations, for example.

Endnotes