

Computer support specialists

They're technical troubleshooters, and their numbers are increasing. That's good news for distressed computer users.

by Roger Moncarz

Almost every computer user encounters a problem occasionally, whether it's the disaster of a crashing hard drive or the annoyance of a forgotten password. Some people try to solve the problem on their own. Others seek the aid of workers trained to resolve technical emergencies, predicaments, and glitches. These workers are known as computer support specialists.

There were more than 400,000 computer support specialists working in the United States in 1998. According to the Bureau of Labor Statistics (BLS), the occupation is projected to be one of the fastest growing over the next decade—more than doubling in employment between 1998 and 2008.

These jobs will be filled by both newly trained and existing computer support specialists who continue to keep their skills current. This article describes what computer support specialists do, what their employment outlook is, how much they earn, and what training they need.

Nature of the work

The explosion of computer use has created a high demand for computer support specialists to provide technical assistance, support, and advice to customers and other users. This group includes technical support specialists and help-desk technicians. These troubleshooters interpret

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problems and provide technical support for hardware, software, and systems. They answer phone calls, analyze problems using automated diagnostic programs, and resolve recurrent difficulties. Support specialists may work either within a company or other organization or directly for a computer hardware or software vendor. Increasingly, these technical professionals give customer support as contractors for help desks or support-services firms.

Technical support specialists. These troubleshooters assist an organization's computer users, many of whom are non-technical employees, when these users run into computer problems they cannot resolve on their own. Technical support specialists install, modify, clean, and repair computer hardware and software. They also may work on monitors, keyboards, printers, and mice.

Technical support specialists answer phone calls from their organization's computer users and may run automatic diagnostic programs to resolve problems. They may also write training manuals and teach computer users about new computer hardware and software. In addition, technical support specialists oversee the daily performance of their company's computer systems and evaluate software programs for usefulness.

Help-desk technicians. These workers assist computer users with the inevitable hardware and software questions not addressed in a product's instruction manual. Help-desk technicians field telephone calls and e-mail messages from customers seeking guidance on technical problems. In responding to these requests for guidance, technicians must listen carefully to the customer, ask questions to diagnose the nature of the problem, and then patiently walk the customer through the problemsolving steps.

Because help-desk technicians deal directly with customer issues, companies

value them as a source of feedback on their products. Most computer support specialists start out as help-desk technicians.

Working conditions

Computer support specialists normally work in well-lit, comfortable offices or computer laboratories. They usually work about 40 hours a week, but that may include evening or weekend work if the employer requires computer support over extended hours. Overtime may be necessary when unexpected technical problems arise. Like other workers who type on a keyboard for long periods, computer



support specialists are susceptible to eyestrain, back discomfort, and hand and wrist problems, such as carpal tunnel syndrome.

Computer support specialists interact with all types of computer users in answering questions and giving advice. Those who work as consultants are away

from their offices much of the time, spending months working in a client's office.

As computer networks expand, more computer support specialists may be able to connect to a customer's computer remotely using modems, laptops, e-mail, and the Internet to provide technical support to computer users. In such cases, computer support specialists would reduce or eliminate travel to the customer's workplace.

Employment and outlook

Computer support specialists held about 429,000 jobs in 1998. Although they worked in a wide range of industries, nearly one-third were in the business services industries, principally computer and data processing services. Other industries that employed substantial numbers of computer support specialists include banks, government agencies, insurance companies, educational institutions, personnel supply services, and wholesale and retail vendors

Computer support specialists work in companies, for computer vendors, and as contractors.

of computers, office equipment, appliances, and home electronic equipment. Many computer support specialists also worked for manufacturers of computers and other office equipment and for firms making electronic components and other accessories.

Employers of computer support specialists range from startup companies to established industry leaders. With the continued development of the Internet, telephony, e-mail, and other communications, industries not typically associated with computers—such as construction—need computer support specialists. Small and large firms across all industries are



either expanding or developing computer systems, creating an immediate need for computer support specialists.

The occupation of computer support specialist is projected to be the second fastest growing occupation over the 1998-2008 decade. Employment is expected to increase much faster than average as technology becomes more sophisticated and organizations continue to adopt and integrate it. Growth will continue to be driven by rapid gains in computer and data processing services, which is projected to be the fastest growing industry in the U.S. economy.

The falling prices of computer hardware and software should help businesses expand their computing applications and

Between 1998 and 2008, employment in this occupation will more than double.

integrate new technology into their operations. To maintain a competitive edge and operate more cost effectively, firms will continue to demand computer professionals who are both knowledgeable about the latest technology and able to apply this technology to meet the organization's needs.

Demand for computer support specialists also is expected to increase because of the rapid pace of improved technology. As computers and software become more complex, support specialists will be needed to provide technical assistance to customers and other users. Consulting opportunities for computer support specialists also should continue to grow as businesses increasingly need help managing, upgrading, and customizing more complex computer systems.

Earnings

Median annual earnings of computer support specialists were \$37,120 in 1998, well above the average for all workers. The middle 50 percent earned between \$28,880 and \$48,810. The lowest 10 percent earned less than \$22,930 and the highest 10 percent earned more than \$73,790. The following tabulation shows 1998 median annual earnings in the industries employing the largest numbers of computer support specialists:

<i>Industry</i>	<i>1998 earnings</i>
Computer and office equipment	\$39,800
Management and public relations	39,100
Computer and data processing services	38,100
Professional and commercial equipment	36,400
Personnel supply services	36,100

According to Robert Half International, a specialized staffing services firm, 1999 starting salaries ranged from \$45,000 to \$54,000 for senior computer support specialists to \$27,000 to \$46,000 for help-desk support staff.

Qualifications, training, and advancement

People interested in becoming computer support specialists must have strong problem-solving, analytical, and communication skills because troubleshooting and helping others are a vital part of the job. The constant interaction with other computer personnel, customers, and employees requires computer support specialists to communicate effectively on paper, via e-mail, and in person. Strong writing skills are important for preparing manuals for employees and customers.

Because of the wide range of skills

required, there are several ways to become a computer support specialist. Employers seek computer professionals who

There's more than one way to prepare for a job as a computer support specialist.

have fundamental computer skills and good interpersonal and communication skills. College graduates with a computer-related bachelor's degree should enjoy very favorable employment prospects, particularly if they have supplemented their formal education with relevant work experience. But because of the rapid growth in demand for computer support specialists, those who have strong computer skills but do not have a bachelor's degree should continue to qualify for some entry-level positions.

Many companies are becoming more flexible about requiring a college degree for support positions because of the rampant demand for specialists. However, certification and practical experience demonstrating these skills will be essential for applicants without a degree. Completion of a certification-training program, offered by a variety of vendors and product makers, may help some people to qualify for entry-level positions. Relevant computer experience may substitute for formal education.

Beginning computer support specialists usually start out dealing directly with customers or in-house users. Then, they are often able to advance into more responsible positions in which they use what they learn from customers to improve the design and efficiency of future products. Job promotions usually depend more on performance than on possession of a degree. Eventually, some computer

support specialists become programmers, designing products rather than assisting users. Computer support specialists at hardware and software companies often enjoy rapid upward mobility; advancement sometimes comes within months of initial employment.

As technology continues to improve, computer support specialists must keep their skills current and acquire new ones. Many continuing education programs are offered by employers, hardware and software vendors, colleges and universities, and private training institutions. Additional training and skills enhancement may come from professional development seminars offered by professional computing services firms.

Sources of additional information

Your local library has information about computer support specialists and the computer industry. For additional information about a career as a computer support specialist, contact:

The Association of Computer Support Specialists
218 Huntington Rd.
Bridgeport, CT 06608
(203) 332-1524
<http://www.acss.org>

The Association of Support Professionals
66 Mount Auburn St.
Watertown, MA 02472
(617) 924-3944, ext. 14
<http://www.asponline.com>

For information on training leading to vendor-sponsored certifications, contact vendors and product makers individually.

