CRAY INC Form S-3/A February 11, 2003 As filed with the Securities and Exchange Commission on February 11, 2003

Registration No. 333-102367

## SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## Form S-3

AMENDMENT NO. 1 TO THE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

# **Cray Inc.**

(Exact name of registrant as specified in its charter)

Washington

(State or other jurisdiction of incorporation or organization)

93-0962605

(IRS Employer Identification No.)

411 First Avenue South Suite 600 Seattle, WA 98104-2860 (206) 701-2000 (telephone) (206) 701-2500 (facsimile)

(Address, including zip code, and telephone and facsimile numbers, including area code, of principal executive offices)

> Kenneth W. Johnson, Vice President-Legal Cray Inc. 411 First Avenue South Suite 600 Seattle, WA 98104-2860 (206) 701-2000 (telephone) (206) 701-2500 (facsimile)

(Name, address, including zip code, and telephone and facsimile numbers, including area code, of agent for service)

Copies to:

L. John Stevenson, Jr. Christopher J. Voss John D. Kauffman Stoel Rives LLP One Union Square, 36th Floor Seattle, WA 98101-3197 (206) 624-0900 (telephone) (206) 386-7500 (facsimile) Joseph P. Whitford Marcus J. Williams Patrick C. Cannon Davis Wright Tremaine LLP 2600 Century Square, 1501 Fourth Avenue Seattle, WA 98101-1688 (206) 622-3150 (telephone) (206) 628-7699 (facsimile)

Approximate date of commencement of proposed sale to the public: as soon as practicable after this registration statement becomes effective.

If the only securities being registered on this Form are to be offered pursuant to dividend or interest reinvestment plans, please check the following box. o

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with a dividend or interest reinvestment plan, check the following box. o

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering. o

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. o

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission becomes effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

**PROSPECTUS** 

SUBJECT TO COMPLETION, DATED FEBRUARY 11, 2003

## 6,250,000 Shares

## **Common Stock**

We are offering 6,000,000 shares of our common stock. The selling shareholders identified in this prospectus are offering an additional 250,000 shares of common stock. If the selling shareholders sell less than 250,000 shares, we will increase the shares we sell so that the total offering will be 6,250,000 shares. We will not receive any of the proceeds from the sale of common stock offered by the selling shareholders. Our common stock is traded on the Nasdaq National Market under the symbol CRAY. On February 7, 2003, the last reported sale price for our common stock was \$6.13 per share.

Investing in our common stock involves risks. See Risk Factors beginning on page 5.

	PER SHARE	TOTAL
Public Offering Price	\$	\$
Underwriting Discount	\$	\$
Proceeds, before expenses, to Cray	\$	\$
Proceeds, before expenses, to the selling shareholders	\$	\$

We have granted the underwriters a 30-day option to purchase up to an additional 937,500 shares of common stock to cover over-allotments.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved of the shares or determined if this prospectus is truthful or complete. It is illegal for any person to tell you otherwise.

## Needham & Company, Inc.

## C.E. Unterberg, Towbin

SG Cowen

The date of this prospectus is

, 2003.

[Large photograph of our Cray X1 system, and smaller photographs of our Cray SV1ex and

MTA-2 systems]

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You should rely only on information contained or incorporated by reference in this prospectus. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock. Updated information can be obtained as described under Where You Can Find More Information.

Cray, Cray-1, UNICOS and UNICOS/mk are federally registered trademarks of Cray Inc., and Cray T90, Cray T3E, Cray SV1, Cray SV1ex, Cray SX-6, Cray MTA, Cray MTA-2, Cray MTX and Cray X1 are trademarks of Cray Inc. Other trademarks used in this prospectus are the property of their respective owners.

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This prospectus contains forward-looking statements including statements concerning the future of our industry, product development, business strategy, continued acceptance and growth of our products, and dependence on significant customers. These statements can be identified by the use of forward-looking terminology such as may, will, expect, anticipate, estimate, continue, or other similar words. Wh considering forward-looking statements, you should keep in mind the risk factors and other cautionary statements in this prospectus. The risk factors described below and other factors noted throughout this prospectus could cause our actual results to differ materially and adversely from those contained in any forward-looking statement.

In this prospectus, we rely on and refer to information and statistics regarding the markets for various products. We obtained this information from third party sources, discussions with our customers and our own internal estimates. We believe that these sources and estimates are reliable, but we have not independently verified them and there can be no assurance that they are accurate.

### PROSPECTUS SUMMARY

You should read the following summary together with the more detailed information appearing elsewhere in this prospectus and the financial statements and related notes and other information incorporated by reference in this prospectus. This prospectus contains forward-looking statements that speak only as of the date they are made and involve risks and uncertainties. Our actual results could differ materially and adversely from those anticipated in the forward-looking statements as a result of a number of factors, including those described under the heading Risk Factors and elsewhere in this prospectus. All references to we, our, us, Cray and the Company refer to Cray Inc. direct and indirect subsidiaries. Certain technical terms used herein are defined in the glossary of this prospectus.

#### **Our Company**

We design, develop, market and service high performance computer systems, commonly known as supercomputers. These systems provide capability and capacity far beyond typical mainframe computer systems and address the world s most challenging computing problems for government, industry and academia. We expect that most of our 2003 product revenue will come from sales of our Cray X1 system, the production version of which first shipped in December 2002. In mid-2002 we began a development project with Sandia National Laboratories to design and deliver a new, high bandwidth, massively parallel processing supercomputer system called Red Storm in 2004. We provide maintenance services to the worldwide installed base of Cray computers. We also offer professional services that leverage our industry technical knowledge.

### **Industry Background**

Since the pioneering Cray-1 system arrived in 1976, supercomputers defined simply as the most powerful class of computers at any time have contributed substantially to the advancement of knowledge and the quality of human life. Problems of major economic, scientific and strategic importance typically are addressed by supercomputers, which usually sell for several millions of dollars each, years before becoming tractable with less capable systems.

Silicon Graphics, Inc. (SGI) acquired Cray Research in 1996 and cancelled the Cray Research product development activities. This factor, combined with the imposition by the U.S. government in 1997 of anti-dumping duties on Japanese vector supercomputer vendors, curtailed the availability of high bandwidth supercomputers to U.S. users. As a result, today s supercomputer market is replete with low bandwidth cluster systems that loosely link together multiple commodity servers or personal computers with commercially available interconnect products. Because these systems lack sufficient bandwidth, they are most suited for applications easily partitioned into discrete tasks that do not need to communicate often with each other.

Applications promising future competitive and scientific advantage demand 10 to 1,000 times more supercomputer power than anything available today, including current low bandwidth systems and existing enterprise-class and mainframe servers. There are three principal drivers to the predicted substantial growth in the high performance computing market: the continuing demand for advanced design capability, increased focus on national security issues and the recognized need for more powerful scientific research tools. The recently introduced Cray X1 system is designed to meet the needs of the advanced design, national security, scientific research and emerging biosciences markets.

## **Our Competitive Advantages**

We believe we are well-positioned to meet the growing demand for increased performance because:

we are dedicated solely to the high performance computer market;

our high bandwidth systems are designed to provide greater sustained performance on difficult computational problems, lower long-term costs of operation and greater operating efficiencies;

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we expect our recently introduced Cray X1 system to set the sustained performance standard as the world s most powerful supercomputer system; and

we plan to continue our research and development efforts with Red Storm and other government funded projects.

With the Cray X1 system as the cornerstone, we now have developed a product roadmap of high performance computer systems that stretches past 2010, with a goal of then delivering systems capable of running a variety of challenging applications at sustained speeds in excess of one petaflops (1,000 trillion floating point operations per second).

#### **Our Strategy**

Our mission is to become the premier provider of supercomputer solutions for our customers. Key elements of our strategy include:

focus on high performance computer systems with high bandwidth that run customer applications at high sustained speeds;

leverage our strong brand, reputation and pioneering position to increase our market share;

pursue an aggressive research and development plan to implement our product roadmap; and

build relationships with key researchers to penetrate emerging government and industrial markets.

#### **Cray Research Acquisition**

On April 1, 2000, we acquired the operating assets of the Cray Research business unit from SGI, and changed our corporate name from Tera Computer Company to Cray Inc. Prior to the acquisition, we had one supercomputer product in development, sales to one customer, limited revenue and approximately 125 employees. Through the acquisition we acquired about 775 employees located in over 20 countries, ongoing sales of existing supercomputer systems with several products in development, integration and final assembly operations, an established service organization, product and service inventory and real property. For these reasons, period to period comparisons that include periods prior to April 1, 2000, are not meaningful. Discussions that relate to periods prior to April 1, 2000, refer to our operations as Tera Computer Company, and discussions that relate to periods after April 1, 2000, refer to our combined operations as Cray Inc.

We were incorporated in Washington in 1987 under the name Tera Computer Company. Our executive offices are located at Merrill Place, 411 First Avenue South, Suite 600, Seattle, WA 98104-2860, and our telephone number is (206) 701-2000. Information contained on our web site does not constitute part of this prospectus.

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## The Offering

Except as otherwise specified in this prospectus, all information in this prospectus assumes no exercise of the underwriters over-allotment option.

Common stock offered by Cray	6,000,000 shares
Common stock offered by the selling shareholders	250,000 shares
Common stock to be outstanding after the offering	62,039,016 shares
Use of proceeds	For general corporate purposes
Nasdaq National Market symbol	CRAY

The selling shareholders may sell less than 250,000 shares in this offering, and in that event, we intend to increase the shares we sell in this offering so that the total offering continues to be 6,250,000 shares, excluding the over-allotment option. The number of shares outstanding after the offering is based on 56,039,016 shares of common stock outstanding as of January 1, 2003, and excludes:

3,125,000 shares of Series A preferred stock convertible into 3,136,763 shares of common stock, plus any dividends on the Series A preferred stock that are paid in shares of common stock;

warrants to purchase 8,964,373 shares of common stock;

stock options to purchase an aggregate of 13,380,602 shares of common stock, of which 6,811,975 options were exercisable as of December 31, 2002. Of these options, directors held an aggregate of 360,597 options (288,591 of which were exercisable), executive officers held an aggregate of 4,723,864 options (2,983,707 of which were exercisable) and other employees and consultants held an aggregate of 8,296,141 options (3,539,677 of which were exercisable); and

any shares that may be issued upon exercise of stock options held by the selling shareholders and sold in this offering.

## Summary Consolidated Financial Data

#### (In thousands, except per share data)

We derived the operating data for the years ended December 31, 1999, 2000 and 2001 from our audited consolidated financial statements incorporated by reference in this prospectus. We derived the operating data for the years ended December 31, 1997, and 1998 from our audited consolidated financial statements, which are not incorporated by reference in this prospectus. We derived the balance sheet data as of September 30, 2002, and the operating data for the nine months ended September 30, 2001, and 2002 from our unaudited consolidated financial statements incorporated by reference in this prospectus. We have prepared the unaudited consolidated financial statements on a basis substantially consistent with the audited consolidated financial statements incorporated by reference in this prospectus and, in the opinion of management, these statements include all adjustments, consisting only of normal recurring adjustments, necessary for fair presentation of such data.

Financial data for the year ended December 31, 2000, in the following table includes nine months of activity of the Cray Research business unit we acquired on April 1, 2000. Period to period comparisons that include periods prior to April 1, 2000, are not meaningful. See Business Our History Cray Acquisition. Application of the non-amortization provisions of SFAS No. 142, which we adopted effective January 1, 2002, resulted in an increase in net income of \$5.3 million for the nine months ended September 30, 2002. See Management s Discussion and Analysis of Financial Condition and Results of Operations.

The As Adjusted data set forth below gives effect to the receipt of the net proceeds from the sale by us of 6,000,000 shares of common stock in this offering at the public offering price of \$ per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. See Use of Proceeds and Capitalization.

	Year Ended December 31,					Nine Mont Septem	
	1997	1998	1999	2000	2001	2001	2002
Operating Data:							
Product revenue	\$	\$ 1,274	\$ 1,794	\$ 46,617	\$ 51,105	\$ 45,333	\$55,491
Service revenue		714	320	71,455	82,502	62,213	60,397
Cost of product revenue		3,759	15,165	32,505	30,657	24,777	29,242
Cost of service revenue		584	273	34,077	41,181	29,780	32,755
Research and							
development	13,142	13,664	15,216	48,426	53,926	40,398	26,440
Goodwill amortization				5,217	6,981	5,318	
Net income (loss)	(15,755)	(19,803)	(34,532)	(25,388)	(35,228)	(17,896)	4,075
Net income (loss) per common share							
Basic	\$ (2.13)	\$ (1.70)	\$ (1.74)	\$ (0.78)	\$ (0.87)	\$ (0.45)	\$ 0.09
Diluted	\$ (2.13)	\$ (1.70)	\$ (1.74)	\$ (0.78)	\$ (0.87)	\$ (0.45)	\$ 0.08
Weighted average outstanding shares		—			—	—	
Basic	8,785	12,212	19,906	32,699	40,632	40,130	46,221
Diluted	8,785	12,212	19,906	32,699	40,632	40,130	51,291

	Septembe	er 30, 2002
	Actual	As Adjusted
lance Sheet Data:		
Cash and cash equivalents	\$ 27,350	\$

Total assets	140 (07
Total assets	140,697
Shareholders equity	70,826

### **RISK FACTORS**

The shares of common stock offered by this prospectus are speculative and involve a high degree of risk of loss. Before making an investment, you should carefully read this entire prospectus, including the information incorporated by reference, and consider the following risks and speculative factors:

### **Risks Related To Our Business**

If we are unable to produce the Cray X1 system on a sustainable basis, our revenue and profits would be reduced. We expect that our success in 2003 and beyond will depend largely upon our ability to turn the Cray X1 system into a stable production quality product. We depend on our vendors to manufacture components for our systems. If our vendors were unable to manufacture components to our design specifications on a timely basis and with sufficient yields, increased repair charges would reduce margins and profits and any delayed deliveries of production quality Cray X1 systems to customers would adversely affect our revenue and profits. We have received Cray X1 system components with unacceptable yields and are working with our vendors to achieve higher yields of reliable components. We have redesigned, and in the future we may have to redesign further, hardware components of the Cray X1 system because of previously unforeseen defects. Redesign work is costly and could cause delays in the production and sale of Cray X1 systems. We also need to achieve reliable system software to sell Cray X1 systems to production environment governmental and industrial customers. We continue to fix reported software problems and anticipate additional software problems to be reported in the future.

If application programs were not successfully ported to the Cray X1 system, we would have difficulty selling these systems to some customers. To make sales of the Cray X1 system in the automotive, aerospace, chemistry and other engineering and technical markets, including certain governmental users, we must have application programs ported to the Cray X1 system and tuned so that they will achieve high performance. The Cray X1 system has a new architecture that may make porting and tuning of application programs difficult. These application programs are owned in some instances by independent software vendors and in others by potential customers. We must induce these vendors and customers to undertake this activity. The relatively low volume of supercomputer sales makes it difficult for us to attract independent software vendors. We also modify and rewrite thirty-party and customer specific application programs to run on the Cray X1 system. There can be no assurance that we will be able to induce the third-party vendors and customers to rewrite their applications or that we will rewrite successfully third-party and customer specific applications for use on the Cray X1 system.

### We may not be successful in completing the Red Storm project on time and on budget, which would adversely affect our earnings.

Our efforts to complete the development and delivery of the Red Storm project for Sandia National Laboratories in 2004 on time and on budget are subject to significant risks. Our work is pursuant to a fixed-price contract with payment against significant monthly milestones setting out a tight development schedule and technically challenging performance requirements. Our success depends on third-party software development, some of which is to be supplied by Sandia, and the timely availability of the Opteron integrated circuits from Advanced Micro Devices, Inc. Continued funding of the project is subject to future federal government appropriations. This project is lengthy and technically challenging, and requires a significant investment of engineering and other resources. Falling behind schedule or incurring cost overruns would adversely affect our capital resources and earnings.

## If the U.S. government purchases fewer supercomputers, our revenue would be reduced and our profitability would be adversely

**affected.** Historically, sales to the U.S. government and customers primarily serving the U.S. government have represented a significant market for supercomputers. From January 1, 2001, through September 30, 2002, approximately 67% of our product revenue was derived from sales to various agencies of the U.S. government. We expect that our initial sales of Cray X1 systems in 2003 will be predominantly to government agencies in the United States and other countries. Sales to government agencies may be affected by factors outside our control, such as changes in procurement policies, budget considerations and international political developments. If the United States or other governments were to stop, reduce or delay their use and purchases of supercomputers, our revenue would be reduced.

If we lose government support for supercomputer systems, our capital requirements would increase and our ability to conduct research and development would decrease. A few government agencies and research laboratories fund a significant portion of our development efforts. Agencies of the U.S. government historically have facilitated the development of, and have constituted a market for, new and enhanced very high performance computer systems, including the current Cray X1 system and our planned Cray X1e, Black Widow, Cascade and Red Storm development projects. U.S. government agencies may delay or decrease funding of these development efforts due to change of priorities, international political developments or for any other reason. Any such decrease or delay may cause an increased need for capital and may adversely affect our research and development expenditures and our ability to implement our product roadmap.

Procurement proposals based on theoretical peak performance reduce our ability to market our systems. Our high performance computer systems are designed to provide high actual sustained performance on difficult computational problems. Some of our competitors offer systems with higher theoretical peak performance at lower comparable prices, although their actual sustained performance on real applications frequently is a small fraction of their theoretical peak performance. Nevertheless, a number of requests for proposals, primarily from governmental agencies in the United States and elsewhere, continue to have criteria based wholly or significantly on theoretical peak performance. Unless these criteria are changed, we are disadvantaged in these instances by being unable to submit competitive bids, which limits our revenue potential.

Termination by NEC Corporation of our distribution rights for the Cray SX-6 system may decrease our revenue and increase

**competition.** We market a rebranded product known as the Cray SX-6 system, which was developed and is built in Japan by NEC Corporation. This product first became available for delivery in North America in the first quarter of 2002, and we are the exclusive distributor of NEC vector supercomputer systems in North America and a non-exclusive distributor outside North America. If we do not achieve certain volumes of sales of Cray SX-6 systems through March 2003, NEC can terminate or make non-exclusive our North American distribution rights for this product and can terminate our distribution rights for NEC vector supercomputers outside North America. Supercomputer customers in the United States have been reluctant to purchase supercomputers from non-U.S. sources, and domestic demand for the SX-6 systems has been far less than we anticipated. We believe there is a reasonable probability that we will not meet the required sales volumes under our agreement with NEC. Loss of our exclusive distribution rights to NEC vector supercomputer systems would result in competition from NEC in North America, and loss of our distribution rights would result in loss of our ability to sell the SX-6 system and successor systems. Any loss of these distribution rights may decrease our revenue and increase competition from NEC. Outside of North America, NEC has competed aggressively based on price.

Lower than anticipated sales of new supercomputers would further reduce our service revenue from maintenance service contracts.

High performance computer systems are typically sold with maintenance service contracts. These contracts generally are for annual periods, although some are for multi-year periods, and provide a predictable revenue base. Revenue from maintenance service contracts has declined from approximately \$125 million in 1999 to approximately \$83 million in 2001 and approximately \$68 million in 2002 as our older systems are withdrawn from service. This revenue is expected to decline further until a sufficient number of our new computer systems are placed in service to balance the withdrawal of our older systems.

**Our reliance on third-party suppliers poses significant risks to our business and prospects.** We subcontract the manufacture of substantially all of our hardware components for all of our products, including integrated circuits, printed circuit boards, flex circuits and power supplies, on a sole or limited source basis to third-party suppliers. We use a contract manufacturer to assemble our components for the Cray X1 and other systems. We are subject to substantial risks because of our reliance on these and other limited or sole source suppliers. For example:

if a supplier did not provide components that meet our specifications in sufficient quantities, then production and sale of our systems would be delayed;

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if a reduction or an interruption of supply of our components occurred, it could take us a considerable period of time to identify and qualify alternative suppliers to redesign our products as necessary and to begin manufacture of the redesigned components;

if we were ever unable to locate a supplier for a key component, we would be unable to deliver our products;

one or more suppliers could make strategic changes in their product lines, which might delay or suspend manufacture of our components or systems; and

some of our key suppliers are small companies with limited financial and other resources, and consequently may be more likely to experience financial and operational difficulties than larger, well-established companies.

From time to time we have experienced delays in obtaining manufactured components and completed assemblies on a timely basis and in sufficient quantities from our suppliers, which have resulted in delays in the development and production of our products.

Our ability to use the SGI IRIX operating system is limited by our agreement with SGI, which may require us to develop an alternative operating system for our Black Widow and other future products. The technology agreement through which we acquired and licensed patent, know-how and other intellectual property rights from SGI restricts our use of certain SGI technology. Most significantly, the technology agreement limits our use of SGI s IRIX operating system to the Cray X1 product family. If we are unable to obtain a license from SGI to use its IRIX operating system on successors to the Cray X1 product family, starting with the Black Widow product, then we would need to develop or acquire our own UNIX-based operating system for these successor systems. This could be a costly and difficult process, and might delay the availability of such successor systems.

The high failure rate in the Cray T90 installed base may reduce our earnings. Some of the components in the Cray T90 vector computers, a product we acquired through the Cray Research acquisition, have an unusually high failure rate. The cost of servicing the T90 computers exceeds the related service revenue. In connection with our acquisition of the Cray Research business unit from SGI, we recorded a warranty reserve to provide for anticipated future losses on the T90 maintenance service contracts. The balance of this reserve was \$7.2 million as of September 30, 2002. We anticipate that almost all of our T90 systems will be deinstalled by the end of 2003. We believe that the warranty reserve balance at September 30, 2002, is a reasonable estimate of the extent to which our costs to service these computers will exceed the revenue generated from existing service contracts. Our estimates may prove to be inaccurate, and our actual costs may differ materially from our estimates. In addition, the T90 failures have adversely affected our reputation for quality products with some customers and may adversely affect sales of our new systems.

If we cannot attract, retain and motivate key personnel, we may be unable to implement effectively our business plan. Our success also depends in large part upon our ability to attract, retain and motivate highly skilled management, technical and marketing and sales personnel. Competition for highly skilled management, technical, marketing and sales personnel is intense, and we may not be successful in attracting and retaining such personnel.

We may infringe or be subject to claims that we infringe the intellectual property rights of others, and we are defending a lawsuit asserting infringement claims. Third parties may assert intellectual property infringement claims against us, and such claims, if proved, could require us to pay substantial damages or to redesign our existing products. Regardless of the merits, any claim of infringement requires management attention and causes us to incur significant expense to defend. For example, we currently are defending a recently commenced lawsuit alleging that the evaporative spray cooling system in our Cray X1 system infringes patents and trade secrets held by a third party. The complaint seeks injunctive relief and damages. While we intend to defend this lawsuit vigorously, pre-trial discovery is just beginning and at this time we cannot predict the outcome of this lawsuit.

We may not be able to protect our proprietary information and rights adequately. We rely on a combination of patent, copyright and trade secret protection, non-disclosure agreements and licensing arrangements to establish, protect and enforce our proprietary information and rights. We have a number of patents and have additional applications pending. There can be no assurance, however, that patents will be issued from the pending applications or that any issued patents will protect adequately those aspects of our technology to which such patents will relate. Despite our efforts to safeguard and maintain our proprietary rights, we cannot be certain that we will succeed in doing so or that our competitors will not independently develop or patent technologies that are substantially equivalent or superior to our technologies. The laws of some countries do not protect intellectual property rights to the same extent or in the same manner as do the laws of the United States. Although we continue to implement protective measures and intend to defend our proprietary rights vigorously, these efforts may not be successful.

**U.S. export controls could hinder our ability to make sales to foreign customers and our future prospects.** The U.S. government regulates the export of high performance computer systems such as our products. Occasionally we have experienced delays in receiving appropriate approvals necessary for certain sales, which have delayed the shipment of our products. Delay or denial in the granting of any required licenses could make it more difficult to make sales to foreign customers, eliminating an important source of potential revenue.

## **Risks Related To Our Industry**

If we are unable to compete successfully against larger, more established companies in the high performance computer market, our revenue will decline. The performance of our products may not be competitive with the computer systems offered by our competitors. Many of our competitors are established companies that are well known in the high performance computer market, including IBM, SGI, Hewlett-Packard, NEC (outside of North America), and Sun Microsystems. Each of these competitors has broader product lines and substantially greater research, engineering, manufacturing, marketing and financial resources than we do. Periodic announcements by our competitors of new high performance computer systems (or plans for future systems) and price adjustments may reduce customer demand for our products. Most of our potential customers already own or lease very high performance computer systems. Some of our competitors offer trade-in allowances or substantial discounts to potential customers, and engage in other aggressive pricing tactics, and we have not always been able to match these sales incentives. We may be required to provide discounts to make sales or to provide lease financing for our products, which would result in a deferral of our receipt of cash for these systems. These developments would limit our revenue and resources and would reduce our ability to be profitable.

We may not compete successfully against innovative competitors or new entrants. Our market is characterized by rapidly changing technology, accelerated product obsolescence and continuously evolving industry standards. Our success will depend upon our ability to sell our current products, and to develop successor systems. We will need to introduce new products and features in a timely manner to meet evolving customer requirements. We may not succeed in these efforts. Even if we succeed, products or technologies developed by others may render our products or technologies noncompetitive or obsolete. New companies have capitalized on developments in parallel processing and increased computer performance through networking and cluster systems. Currently, these products are limited in applicability and scalability and can be difficult to program. A breakthrough in architecture or software technology could make cluster systems more attractive to our potential customers. Such a breakthrough would impair our ability to sell our products and reduce our revenue.

General economic and market conditions could decrease our revenue, increase our need for cash and adversely affect our profitability. While much of our business is related to the government sector, which is less affected by short-term economic cycles, a slow-down in the overall U.S. and global economy and resultant decreases in capital expenditures have affected sales to our industrial customers and may continue to do so. Cancellations or delays in purchases would decrease our revenue, increase our need for working capital and adversely affect our profitability.

## **Risks Related To An Investment In Our Company**

We have experienced annual losses from operations in prior years, and we may not achieve net income on a consistent basis. We have experienced net losses in each full year of our operations. We incurred net losses of approximately \$35.2 million in 2001, \$25.4 million in 2000, and \$34.5 million in 1999. For the nine months ended September 30, 2002, we had net income of \$4.1 million. Whether we will achieve net income on a consistent basis will depend on a number of factors, including:

our ability to market and sell the Cray X1 system and other products, maintain the Red Storm project on schedule and engage professional services clients;

the level of revenue in any given period;

the cost of servicing the Cray T90 installed base;

the terms and conditions of sale or lease for our products; and

our expense levels, particularly for research and development and manufacturing and service costs.

Because of the numerous factors affecting our results of operations, there can be no assurance that we will have net income in the future.

**Our quarterly operating results may fluctuate significantly.** Our operating results are subject to significant fluctuations due to many factors. One or a few system sales may account for a substantial percentage of our quarterly and annual revenue, and thus revenue, net income or loss and cash flow are likely to fluctuate significantly from quarter to quarter. This is due to the high average sales price of our products, the timing of purchase orders and product delivery, and our general policy of not recognizing product revenue until our customers accept our products. Red Storm revenue and margin may fluctuate from quarter to quarter due to the level of contract activity, including purchases of materials and changes in the estimates of the cost to complete. Because a number of our prospective customers receive funding from the U.S. or foreign governments, the timing of orders from our customers may be subject to the appropriation and funding schedules of the relevant government agencies. The timing of orders and shipments also could be affected by other events outside our control, such as:

the timely availability of acceptable components in sufficient quantities to meet customer delivery schedules;

changes in levels of customer capital spending;

the introduction or announcement of competitive products;

timing of the receipt of necessary export licenses; or

currency fluctuations and international conflicts or economic crises.

**Our stock price may be volatile.** The stock market has been and is subject to price and volume fluctuations that particularly affect the market prices for small capitalization, high technology companies like us. The trading price of our common stock is subject to significant fluctuations in response to many factors, including our quarterly operating results, changes in analysts estimates, our future capital raising activities, announcements of technological innovations by us or our competitors and general conditions in our industry.

A substantial number of our shares are eligible for future sale and may depress the market price of our common stock and may hinder our ability to obtain additional financing. As of January 1, 2003, we had outstanding:

56,039,016 shares of common stock;

3,125,000 shares of Series A preferred stock convertible into 3,136,763 shares of common stock, plus any dividends on the Series A preferred stock that are paid in shares of common stock;

warrants to purchase 8,964,373 shares of common stock; and

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stock options to purchase an aggregate of 13,380,602 shares of common stock, of which 6,811,975 options were then exercisable.

Almost all of our outstanding shares of common stock may be sold without substantial restrictions. All of the shares purchased under the warrants and exercisable options are available for sale in the public market, subject in some cases to volume and other limitations. All outstanding shares of Series A preferred stock are owned by NEC Corporation. The Series A preferred stock is not convertible into common stock unless the Series A preferred stock is sold or we sell substantially all our assets or we are acquired and the holders of our voting stock own less than a majority of the voting stock of the entity surviving the acquisition. If we sell substantially all our assets or are acquired in such an acquisition, the holder of Series A preferred stock, in lieu of conversion of that stock into common stock, may elect to receive the liquidation preference of \$8.00 per share of Series A preferred stock, plus any accrued and unpaid dividends, before any payment is made to the holders of common stock. Any shares of Series A preferred stock that are sold automatically convert into common stock. NEC has agreed not to sell the Series A preferred stock before May 10, 2003. After that date, NEC can sell the Series A preferred stock without restriction, except that NEC cannot sell privately to any person who is, or by such sale would become, a beneficial owner of 5% or more of our common stock. In addition, after May 10, 2003, if requested to do so by NEC, we are obligated to register for public resale the common stock issuable upon conversion of the Series A preferred stock. Warrants to purchase 3,524,523 shares of common stock, with exercise prices ranging from \$3.00 to \$6.00 per share, expire between September 28, 2003, and November 2, 2004. Warrants to purchase 300,442 shares of common stock, with exercise prices ranging from \$4.50 to \$6.00 per share, expire between November 7, 2005, and September 3, 2006. The remaining warrants outstanding as of December 31, 2002, to purchase 5,139,408 shares of common stock, with an exercise price of \$2.53 per share, expire on June 21, 2009. Sales in the public market of substantial amounts of our common stock, including sales of common stock issuable upon the exercise or conversion of the warrants, options, and Series A preferred stock, may depress prevailing market prices for the common stock. Even the perception that sales could occur may impact market prices adversely. The existence of outstanding warrants, options and Series A preferred stock may prove to be a hindrance to our future equity financings. Further, the holders of the warrants and options may exercise them for shares of common stock, and NEC may sell its Series A preferred stock, at a time when we would otherwise be able to obtain additional equity capital on terms more favorable to us. Such factors could impair our ability to meet our capital needs.

Provisions of our articles and bylaws could make a proposed acquisition that is not approved by our board of directors more difficult. Provisions of our restated articles of incorporation and restated bylaws could make it more difficult for a third party to acquire us. These provisions could limit the price that investors might be willing to pay in the future for our common stock. For example, our articles of incorporation and bylaws provide for:

a staggered board of directors, so that only two or three of our eight directors are elected each year;

removal of a director only in limited circumstances and only upon the affirmative vote of not less than two-thirds of the shares entitled to vote to elect directors;

the ability of our board of directors to issue preferred stock, without shareholder approval, with rights senior to those of the common stock;

no cumulative voting of shares;

calling a special meeting of the shareholders only upon demand by the holders of not less than 30% of the shares entitled to vote at such a meeting;

amendments to our restated articles of incorporation require the affirmative vote of not less than two-thirds of the outstanding shares entitled to vote on the amendment, unless the amendment was approved by a majority of our continuing directors, who are defined as directors who have either served as a director since August 31, 1995, or were nominated to be a director by the continuing directors;

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special voting requirements for mergers and other business combinations, unless the proposed transaction was approved by a majority of continuing directors;

special procedures must be followed to bring matters before our shareholders at our annual shareholders meeting; and

special procedures must be followed to nominate members for election to our board of directors.

These provisions could delay, defer or prevent a merger, consolidation, takeover or other business transaction between us and a third party.

Additional financings may be dilutive to our shareholders. We may need to raise additional equity or debt capital if we experience lower than anticipated product sales due to delays in availability of Cray X1 systems for delivery to customers or general economic conditions, or if we fail to receive sufficient governmental support for our products and research activities. In addition, we may raise additional funds to enhance our working capital position. Financings may not be available to us when needed or, if available, may not be available on satisfactory terms and may be dilutive to our shareholders.

We do not anticipate declaring any cash dividends on our common stock. We have never paid any cash dividends on our common stock, and we do not anticipate paying any cash dividends on our common stock in the foreseeable future. Our outstanding Series A preferred stock accrues a cumulative dividend, which is payable in cash if declared by our board of directors or otherwise in common stock upon conversion of the Series A preferred stock into common stock. In addition, our credit facilities prohibit us from paying cash dividends without the consent of our lenders.

### **USE OF PROCEEDS**

Our net proceeds from the sale of the 6,000,000 shares of our common stock offered by us at the public offering price of \$ per share are estimated to be \$ after deducting underwriting discounts and commissions and our estimated offering expenses. We expect to use the net proceeds of the offering for general corporate purposes. Pending such use, we intend to invest the net proceeds from the offering in short-term, interest-bearing, investment grade securities. We will not receive any of the proceeds from the sale of 250,000 shares by the selling shareholders.

### PRICE RANGE OF COMMON STOCK

Our common stock is traded on the Nasdaq National Market under the symbol CRAY; prior to April 1, 2000, our stock traded under the symbol TERA. The following table sets forth the quarterly high and low closing prices of our common stock as reported by the Nasdaq National Market for the periods indicated.

	High	Low
2001		
First Quarter	\$2.94	\$1.59
Second Quarter	2.71	1.53
Third Quarter	3.45	1.71
Fourth Quarter	2.91	1.71
2002		
First Quarter	2.66	1.82
Second Quarter	4.47	2.21
Third Quarter	4.43	3.11
Fourth Quarter	7.82	3.22
2003		
First Quarter (through February 7, 2003)	7.78	6.00

The last reported sale price of our common stock on the Nasdaq National Market on February 7, 2003, was \$6.13 per share. On January 1, 2003, we had 56,039,016 shares of common stock outstanding that were held by approximately 880 holders of record.

## **DIVIDEND POLICY**

We have not paid cash dividends on our common stock, and we do not anticipate paying any cash dividends on our common stock in the foreseeable future. Each share of Series A preferred stock has a cumulative dividend accruing from its issuance on May 10, 2001 at the rate of \$.16 per annum. As of February 10, 2003, the aggregate accrued and unpaid dividends on the outstanding shares of Series A preferred stock were \$875,000. The dividends are payable in cash when, as and if declared by our board of directors, except that upon conversion of the Series A preferred stock, any accrued and unpaid dividends are payable in common stock, based on an average of our common stock prices prior to conversion. In addition, our credit facilities prohibit us from paying cash dividends without the consent of our lenders.

## CAPITALIZATION

The following table sets forth our actual capitalization as of September 30, 2002, and as adjusted to give effect to the issuance and sale by us of 6,000,000 shares of common stock in this offering at the public offering price of \$ per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

This capitalization table should be read in conjunction with our unaudited condensed consolidated financial statements and related notes for September 30, 2002, which are incorporated by reference in this prospectus.

	September	30, 2002
	Actual	As Adjusted
	(In Thou	isands)
Cash and cash equivalents	\$ 27,350	\$
		_
Long-term debt	11,077	
Shareholders equity:		
Series A convertible preferred stock, par \$.01 Authorized, issued and		
outstanding, 3,125,000 shares	24,946	
Common stock, par \$.01 Authorized, 100,000,000 shares; issued and		
outstanding, 51,464,125 shares; 57,464,125 shares as adjusted(1)	199,904	
Accumulated other comprehensive loss	(347)	
Accumulated deficit	(153,677)	
Total shareholders equity	70,826	
1		
Total capitalization	\$ 81,903	\$

## (1) Excludes:

3,125,000 shares of Series A preferred stock convertible into 3,136,763 shares of common stock, plus any dividends on the Series A preferred stock that are paid in shares of common stock;

warrants to purchase 9,230,873 shares of common stock;

3,973,935 shares of common stock issued in the fourth quarter of 2002 upon conversion of debentures; and

stock options to purchase an aggregate of 13,316,763 shares of common stock, of which 6,815,006 options were exercisable as of September 30, 2002.

### SELECTED CONSOLIDATED FINANCIAL DATA

#### (In thousands, except per share data)

We derived the operating data for the years ended December 31, 1999, 2000 and 2001 and the balance sheet data as of December 31, 2000, and 2001 from our audited consolidated financial statements incorporated by reference in this prospectus. We derived the operating data for the years ended December 31, 1997, and 1998 and the balance sheet data as of December 31, 1997, 1998 and 1999 from our audited consolidated financial statements, which are not incorporated by reference in this prospectus. We derived the operating data for the nine months ended September 30, 2001, and 2002 and the balance sheet data as of September 30, 2002, from our unaudited condensed consolidated financial statements incorporated by reference in this prospectus. We derived the balance sheet data as of September 30, 2001, from our unaudited condensed consolidated financial statements, which are not incorporated by reference in this prospectus. We have prepared the unaudited condensed consolidated financial statements on a basis consistent with the audited consolidated financial statements incorporated by reference in this prospectus and, in the opinion of management, these unaudited condensed consolidated financial statements, necessary for fair presentation of such data.

The following data should be read in conjunction with Management s Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this prospectus and the financial statements and related notes thereto incorporated by reference in this prospectus. Financial data for the year ended December 31, 2000, in the following table includes nine months of activity of the Cray Research business unit acquired by us on April 1, 2000. Period to period comparisons that include periods prior to April 1, 2000, are not meaningful. See Business Our History Cray Acquisition. Application of the non-amortization provisions of SFAS No. 142, which we adopted effective January 1, 2002, resulted in an increase in operating results of \$5.3 million for the nine months ended September 30, 2002.

	Year Ended December 31,			Nine Mon Septem			
	1997	1998	1999	2000	2001	2001	2002
Operating Data:							
Product revenue	\$	\$ 1,274	\$ 1,794	\$ 46,617	\$ 51,105	\$ 45,333	\$55,491
Service revenue		714	320	71,455	82,502	62,213	60,397
Cost of product revenue		3,759	15,165	32,505	30,657	24,777	29,242
Cost of service revenue		584	273	34,077	41,181	29,780	32,755
Research and							
development	13,142	13,664	15,216	48,426	53,926	40,398	26,440
Goodwill amortization				5,217	6,981	5,318	
Net income (loss)	(15,755)	(19,803)	(34,532)	(25,388)	(35,228)	(17,896)	4,075
Net income (loss) per common share							
Basic	\$ (2.13)	\$ (1.70)	\$ (1.74)	\$ (0.78)	\$ (0.87)	\$ (0.45)	\$ 0.09
Diluted	\$ (2.13)	\$ (1.70)	\$ (1.74)	\$ (0.78)	\$ (0.87)	\$ (0.45)	\$ 0.08
Weighted average outstanding shares							
Basic	8,785	12,212	19,906	32,699	40,632	40,130	46,221
Diluted	8,785	12,212	19,906	32,699	40,632	40,130	51,291
			December 31,			Septem	ber 30,
	1997	1998	1999	2000	2001	2001	2002
alance Sheet Data:							

\$10.069

\$ 4.626

\$ 12,377

\$ 4.306

Cash and cash equivalents

\$13,329

\$ 3,162

\$ 27,350

Working capital	14,342	7,269	9,208	(25,970)	(5,724)	3,247	22,251
Warranty reserves, long-term							
portion				14,285	8,479	9,896	3,262
Convertible subordinated							
debentures					8,387		8,472
Other long term obligations	532	573	1,412	538	4,349	5,107	2,605
Total assets	20,859	20,288	23,410	136,193	127,087	126,245	140,697
Redeemable securities	9,478						
Shareholders equity	6,368	11,889	14,307	36,147	39,750	56,233	70,826
			14				

### MANAGEMENT S DISCUSSION AND ANALYSIS OF

### FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act, as amended, and is subject to the safe harbor created by those sections. Factors that realistically could cause results to differ materially from those projected in the forward-looking statements are set forth above under Risk Factors. The following discussion should also be read in conjunction with the consolidated financial statements and notes thereto incorporated by reference in this prospectus.

### Overview

We design, develop, market and service high performance computer systems, commonly known as supercomputers. These systems provide capability and capacity far beyond typical mainframe computer systems and address the world s most challenging computing problems for government, industry and academia. We expect that most of our 2003 product revenue will come from sales of our Cray X1 system, the production version of which first shipped in December 2002. In mid-2002 we began a development project with Sandia National Laboratories to design and deliver a new, high bandwidth, massively parallel processing supercomputer system called Red Storm in 2004. We provide maintenance services to the worldwide installed base of Cray computers. We also offer professional services that leverage our industry technical knowledge.

We have experienced net losses in each full year of our operations. We incurred net losses of approximately \$35.2 million in 2001, \$25.4 million in 2000, and \$34.5 million in 1999. For the nine months ended September 30, 2002, we had net income of \$4.1 million.

We recognize product revenue from sales of our computer systems upon acceptance by the customer, although in limited circumstances, depending on sales contract terms, revenue may be recognized when title passes upon shipment or may be delayed until funding is certain. We recognize product revenue from the Red Storm project using the percentage-of-completion method. We recognize service revenue for the maintenance of our computer systems ratably over the term of each maintenance agreement. Funds from maintenance and product sales contracts that are paid in advance are recorded as deferred revenue. We recognize service revenue from our professional services activities as services are rendered.

Factors that should be considered in evaluating our business, operations and prospects and that could affect our future results and financial condition are set forth above under Risk Factors.

### **Critical Accounting Policies and Estimates**

This discussion as well as disclosures included elsewhere in this prospectus are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingencies. On an ongoing basis, we evaluate the estimates used, including those related to estimates of warranty liabilities, valuation of inventory at the lower of cost or market, the percentage complete and estimated gross profit on the Red Storm contract, and impairment of goodwill. We base our estimates on historical experience, current conditions and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources as well as identifying and assessing our accounting treatment with respect to commitments and contingencies. Actual results may differ from these estimates under different assumptions or conditions. We believe the following critical accounting policies involve the more significant judgments and estimates used in the preparation of the consolidated financial statements.

## T90 Reserve

We acquired service contracts in the acquisition of the Cray Research business unit in April 2000 for Cray T90 vector computers. Some of the components in the Cray T90 vector computers have an unusually high failure rate. As of April 1, 2000, the date of our acquisition of the Cray Research business unit from Silicon Graphics, Inc., we recorded a warranty reserve of \$47.5 million, of which \$46.3 million reflected our estimate of the amount by which the cost of servicing the T90 vector computers would exceed the revenue generated from servicing them until they were no longer in use by our customers. As we incur costs to service these computers in excess of the related service revenue, we reduce the amount of the T90 warranty reserve. As of September 30, 2002, our total warranty reserve balance was \$7.5 million, of which \$7.2 million related to the T90 vector computers. We continually monitor the reasonableness of our estimate of the warranty reserve. This involves analysis of our assumptions with regard to the length of time the T90 vector computers will be in use by our customers, the failure rate of modules in the computers that occur in the future. We believe that the T90 warranty reserve balance at September 30, 2002, is a reasonable estimate of the extent to which our costs to service these computers will exceed from existing service contracts. It is possible, however, that our estimates may prove to be inaccurate and that our actual costs may differ materially from our estimates.

#### **Red Storm Contract**

Product revenue from the Red Storm contract is accounted for using the percentage of completion method. Revenue is recognized as costs are incurred, and margin is based on the total estimated cost to complete. The estimate to complete is based on several factors, including estimated labor hours to complete certain tasks and estimated cost of purchased components at future dates. Our estimates may need to be adjusted from quarter to quarter, which would impact our revenue and our margin on a cumulative basis.

#### Inventories

We record our inventories at the lower of cost or market. We regularly evaluate the technological usefulness of various inventory components. When it is discovered that previously inventoried components do not function as intended in a fully operational system, the costs associated with these components are expensed. Due to rapid changes in technology and the increasing demands of our customers, we are continually developing new products. As a result, it is possible that older products we have developed may become obsolete or we may sell these products below cost. When we determine that we will likely not recover the cost of inventory items through future sales, we write down the related inventory to our estimate of its market value. As of September 30, 2002, we had an allowance for excess and obsolete inventory of \$8.2 million applied against our gross inventory balance of \$26.4 million. Because the products we sell have high average sales prices and because a high number of our prospective customers receive funding from U.S. or foreign governments, it is difficult to estimate future sales of our products and the timing of such sales. It also is difficult to determine whether the cost of our inventories will ultimately be recovered through future sales. While we believe our inventory is stated at the lower of cost or market and that our estimates and assumptions to determine any adjustments to the cost of our inventories are reasonable, our estimates may prove to be inaccurate. We have sold inventory previously reduced in part or in whole to zero, and we may have future sales of previously written down inventory. We may also have additional expense to write down inventory to its estimated market value. Adjustments to these estimates in the future may materially impact our operating results.

#### Goodwill

Approximately 16% of our assets as of September 30, 2002, consisted of goodwill resulting from our acquisition of the Cray Research business unit from SGI in 2000. As discussed in the Recent Accounting Pronouncements section in the notes to the consolidated financial statements, which are incorporated by reference in this prospectus from the 2001 Form 10-K Annual Report, we adopted SFAS No. 142 on January 1, 2002, and we no longer amortize goodwill associated with the acquisition, but we will be required to

conduct ongoing analyses of the recorded amount of goodwill in comparison to its estimated fair value. These ongoing analyses of whether the fair value of recorded goodwill is impaired will involve a substantial amount of judgment. Future charges related to goodwill could be material depending on future developments and changes in technology and our business.

#### **Results of Operations**

With the acquisition of the Cray Research business unit on April 1, 2000, period-to-period comparisons of our operating results that include periods prior to the acquisition are not meaningful.

### Product Revenue

We had product revenue of \$55.5 million for the nine months ended September 30, 2002, compared to \$45.3 million for the respective 2001 period. Product revenue represented 48% of total revenue for the nine months ended September 30, 2002, compared to 42% for the corresponding 2001 period, and consisted primarily in the 2002 period of \$17.4 million for our Cray SV1 and SV1ex product line, \$16.3 million for our T3E product line, \$5.7 million for shipments of early production Cray X1 systems, \$5.0 million for our MTA-2 product line and \$11.0 million for our other products.

We had revenue from product sales of \$51.1 million for 2001, up from \$46.6 million in 2000 and \$1.8 million in 1999. Product revenue represented 38% of total revenues for 2001 and consisted primarily of \$19.1 million for our SV1 and SV1ex product line and \$27.3 million for our T3E product line. 2001 revenue included \$2.2 million from the sale of inventory previously written down to zero. Product sales revenue was less than anticipated due to delays in completing the SV1ex enhancements, with the first complete SV1ex product shipment occurring in late November 2001. Product revenue in 2000 primarily consisted of \$19.1 million for our SV1 product line and \$27.3 million for our T3E product line. Product sales for Cray Research products declined during each of the three years prior to our acquisition of the Cray Research business unit, primarily because SGI had stopped development funding of new Cray Research products. Product revenue in 1999 included \$1.7 million from the upgrade of the MTA system at the San Diego Supercomputer Center to eight processors.

With the delivery of the Cray X1 system to customers and the performance of the Red Storm project, we expect our product revenue in 2003 to increase and be a larger percentage of total revenue. We expect our product revenue to vary quarterly. If we lose our distribution rights for NEC vector systems in North America, we may experience increased competition for domestic sales of our products. See Business Competition.

#### Service Revenue

We had service revenue, which includes revenue from maintenance services and, beginning in 2002, from professional services, of \$60.4 million for the nine months ended September 30, 2002, compared to \$62.2 million for the 2001 period. The 2002 results include \$8.3 million from professional services for the first nine months, including \$3.0 million for preliminary engineering services on the Red Storm project in the third quarter. Revenue from the Red Storm project will be reported as product revenue in subsequent quarters. Service revenue represented 52% of total revenue for the nine months ended September 30, 2002, and 58% for the corresponding 2001 period.

We had service revenue of \$82.5 million in 2001, up from \$71.5 million for 2000 and \$320,000 in 1999. Services are provided under separate maintenance contracts with our customers. These contracts generally provide for maintenance services for one year, although some are for multi-year periods. The overall increase in service revenue is due to the acquisition of the Cray product line and related service business in April 2000. Service revenue represented 62% and 61% of total revenues for 2001 and 2000, respectively. We expect maintenance service revenue to decline slowly over the next year or so as our older systems are withdrawn from service and then to stabilize as our new systems are placed in service.

Professional services are provided under separate contracts for a particular activity such as development, design and study of a new high performance computer system, deinstalling a computer system, porting applications to one of our platforms or use of our computer resources for a particular period, and we expect contracts to vary greatly in size. We recorded our first revenue from professional services in the first quarter of 2002, and we expect our professional services revenue, adjusted for future reporting of the Red Storm project as product revenue, to increase modestly.

#### **Operating Expenses**

*Cost of Product Revenue.* We had cost of product revenue of \$29.2 million for the nine months ended September 30, 2002, compared to \$24.8 million for the 2001 nine-month period. Our cost of product represented 53% of product revenue for the nine months ended September 30, 2002, compared to 55% for the corresponding 2001 nine-month period. Revenue for the nine months ended September 30, 2002, includes \$5.9 million from the sale in the first quarter of obsolete inventory recorded at a zero cost basis.

Cost of product revenue was \$30.7 million for 2001, \$32.5 million for 2000 and \$15.2 million for 1999. Cost of product revenue represented 60%, 70%, and 845% of product revenue for 2001, 2000 and 1999, respectively. The high cost of product revenue in 2000 is due to the age of the SV1 and T3E product lines and inventory adjustments for SV1 and MTA gallium arsenide parts. Cost of product revenue was high in 1999 as a percentage of the revenue due to the inclusion of manufacturing costs and inventory adjustments relating to the MTA product line and favorable pricing terms provided to our first MTA customer.

We expect that, compared to 2002, our cost of product revenue in 2003 will be adversely affected by start-up costs incurred in the Cray X1 ramp-up and lower margins on the Red Storm project. In addition, we may grant favorable pricing for large multi-system contracts.

*Cost of Service Revenue.* We had cost of service revenue of \$32.8 million for the nine months ended September 30, 2002, including \$6.2 million of cost of professional services revenue for the nine months ended September 30, 2002, compared to \$29.8 million for the corresponding 2001 nine-month period. Our cost of service revenue represented 54% of service revenue for the nine months ended September 30, 2002, compared to 48% for the corresponding 2001 nine-month period. The lower cost of service revenue in the first nine months of 2001 was due to favorable cost variances. In 2002, lower cost of maintenance revenue, due in part to \$2.7 million reduction in warranty reserves, was largely offset by higher costs for professional services revenue due to the start-up of those services.

Cost of service revenue was \$41.2 million for 2001, \$34.1 million for 2000 and \$273,000 for 1999. Cost of service revenue represented 50%, 48%, and 85% of service revenue for 2001, 2000 and 1999.

Given that maintenance revenue is expected to decline slowly and our professional services revenue will increase only modestly, we expect our overall cost of service revenue to increase to over 60% as a percentage of service revenue for 2003.

#### **Research and Development**

Research and development expenses for the nine month periods ended September 30, 2001, and 2002 reflect our costs associated with the enhancements to the Cray SV1 and T3E systems in the 2001 period and the development of the Cray X1, and to a lesser extent, the Cray MTA-2 in both the 2001 and 2002 nine-month periods, including related software development. Research and development expenses for 1999, 2000 and 2001 reflect our costs associated with the enhancements to the Cray SV1 and T3E systems and the development of the Cray MTA and X1 systems, including related software development. These costs also include personnel expenses, allocated overhead and operating expenses, software, materials and engineering expenses, including payments to third parties. These costs are offset in part by government funding for development and services, including development related to the Cray X1 systems, enhancements and successors to the Cray X1 system and other products, and our efforts on the Red Storm project. Research and

development expenses for 1999, 2000 and 2001 and the nine-month periods ended September 30, 2001, and 2002 were as follows (in thousands):

	For the	e Year Ended Decer	For the Nine Months Ended September 30,		
	1999	2000	2001	2001	2002
Gross research and development Government funding	\$15,288 (72)	\$57,730 (9,304)	\$ 66,549 (12,623)	\$50,177 (9,779)	\$ 40,927 (14,487)
Net research and development	\$15.216	\$48,426	\$ 53,926	\$40,398	\$ 26,440
r ter researen and de rerepritent	¢13,210	\$ 10, 120	\$ 33,920	\$ 10,590	\$ 20,110

Gross research and development expenditures have continued to decline as we completed the major development work on the Cray X1 system as well as the Cray SV1ex and MTA-2 systems. At the same time we have received increased governmental funding for our continued development efforts. Net research and development expenditures represented 40%, 41%, and 720% of revenue for 2001, 2000, and 1999, respectively, and 23% of total revenue for the nine months ended September 30, 2002, compared to 38% for the corresponding 2001 nine-month period.

We expect that gross research and development expenses will increase in 2003 to reach or slightly exceed the 2001 level. However, we expect that net research and development expenses will remain flat or decline for the fourth quarter of 2002 and into 2003, primarily due to increased governmental funding. As a percentage of overall revenue, we expect net research and development expenses to continue to decrease as we expect to increase our overall revenue and receive increased government funding.

#### Marketing and Sales

Marketing and sales expenses were \$14.9 million for the nine months ended September 30, 2002, compared to \$14.9 million for the 2001 period. Marketing and sales expenses were \$20.0 million in 2001, \$14.4 million in 2000 and \$2.5 million in 1999. The increase in these expenses from 1999 to 2001 was due to the acquisition of the Cray Research business unit, which required us to re-establish the Cray sales and customer support staff and increase expenditures in connection with sales and marketing, benchmarks and development of third party applications software.

We expect quarterly marketing and sales expenses to grow modestly in the fourth quarter of 2002 and into 2003, but to decline as a percentage of revenue.

#### General and Administrative

General and administrative expenses were \$6.0 million for the nine months ended September 30, 2002, compared to \$6.3 million for the 2001 period. General and administrative expenses were \$9.2 million for 2001, \$7.0 million in 2000 and \$3.1 million in 1999. The increase in these expenses from 1999 to 2001 was due to the acquisition of the Cray Research operations, which required us to add managerial and administrative staff and to incur increases in legal, accounting and consulting expenses in connection with establishing foreign operations and implementing new accounting systems.

We expect quarterly general and administrative expenses to grow modestly in the fourth quarter of 2002 and into 2003, but to decline as a percentage of revenue.

#### **Restructuring Charges**

Restructuring charges were \$1.9 million for the nine months ended September 30, 2002, compared to \$1.3 million for the respective 2001 period and represent severance expenses related to the termination of 20 employees in the first quarter of 2002.

We incurred restructuring charges of \$3.8 million in 2001. These charges were primarily for severance expenses related to the termination of 102 employees in the third and fourth quarters of 2001. As of

December 31, 2001, we paid \$1.3 million of these charges and the remaining \$2.5 million is included in accrued payroll and related expenses.

#### Goodwill

We incurred no amortization expense for the nine months ended September 30, 2002, compared to \$5.3 million for the 2001 period. Amortization expense relates to the goodwill resulting from the acquisition of the Cray Research business unit on April 1, 2000. Following the implementation of Statement of Financial Accounting Standard No. 142, we determined that there was no impairment related to goodwill as of January 1, 2002, and we will not record any further amortization of goodwill in 2002. See Recent Accounting Pronouncements in the notes to the consolidated financial statements incorporated by reference in this prospectus from our 2001 Form 10-K Annual Report.

We incurred amortization expense of \$7.0 million in 2001 and \$5.2 million in 2000, primarily related to the goodwill and intangible assets from the acquisition of the Cray Research business unit.

In accordance with SFAS No. 142, the effect of this accounting change is reflected prospectively from January 1, 2002. Supplemental comparative disclosure as if the change had been retroactively applied in the prior year periods is as follows (in thousands, except per share amounts):

	For the	For the Nine		
	1999	2000	2001	Months Ended September 30, 2001
Reported net loss	\$(34,532)	\$(25,388)	\$(35,228)	\$(17,896)
Plus: goodwill amortization		5,217	6,981	5,318
Adjusted net loss	\$(34,532)	\$(20,171)	\$(28,247)	\$(12,578)
Reported basic and diluted net loss per share	\$ (1.74)	\$ (0.78)	\$ (0.87)	\$ (0.45)
Plus: goodwill amortization		0.16	0.17	0.13
Adjusted basic and diluted net loss per share	\$ (1.74)	\$ (0.62)	\$ (0.70)	\$ (0.32)

#### Other Income (Expense)

Other income was \$2.5 million for the nine months ended September 30, 2002, compared to other expense of \$255,000 for the 2001 period. The increase in other income consisted primarily of a negotiated settlement of an accrued cancellation charge on a purchase commitment. See Accrued Loss on Purchase Commitment in the notes to condensed consolidated financial statements incorporated by reference in this prospectus from our Form 10-Q for the quarter ended September 30, 2002.

Other expense was \$336,000 for 2001 compared to other income of \$675,000 for 2000, and other expense of \$106,000 for 1999. Other income (expense) for 2001 and 2000 consisted primarily of realized gains and losses from the effects of foreign currency exchange rates.

#### Interest Income (Expense)

Interest income was \$62,000 for the nine months ended September 30, 2002, compared to \$96,000 for the 2001 period. Interest income was \$224,000 for 2001, \$690,000 for 2000, and \$537,000 for 1999. The higher amounts in 2000 and 1999 reflect our increased cash position due to the sales of equity securities in the first quarter of 2000, and in 1999.

Interest expense was \$1.6 million for the nine months ended September 30, 2002, compared to \$1.6 million for the 2001 period. Interest expense was \$2.0 million for 2001, \$2.4 million for 2000 and \$815,000 for 1999. The interest expense for 2001 was largely due to a non-cash

charge of \$747,000 in the first quarter of 2001 associated with the value of the conversion feature of certain investor promissory notes, and a \$225,000 non-cash charge for the value of options, also in the first quarter of 2001, compared to a non-cash

charge of \$435,000 for the nine months ended September 30, 2002, associated with the convertible debenture financing completed in November 2001.

The increase in 2001 and 2000 over 1999 was largely due to \$1.0 million of non-cash interest associated with the value of the conversion feature of certain investor promissory notes and \$1.0 million of interest paid on our term loan, line of credit, capital lease and debt obligations in 2001. In 2000, we recognized imputed interest expense of \$1.4 million on the non-interest bearing note issued to SGI, a non-cash interest expense of approximately \$336,000 associated with the value of the conversion feature of certain investor promissory notes, a non-cash expense of \$200,000 for the value of warrants issued in conjunction with investor promissory notes and \$92,000 of interest paid on a line of credit.

#### Taxes

We recorded a provision of \$1.5 million for income taxes in foreign countries and certain states for the nine months ended September 30, 2002, compared to \$961,000 for the 2001 period. There has been no provision for U.S. federal income taxes for any period.

We made a provision of \$994,000 and \$831,000 for international income taxes in 2001 and 2000, respectively. As of December 31, 2001, we had net operating loss carry-forwards of approximately \$137.1 million, of which approximately \$323,000 expires in 2003, none expires in 2004 and the balance of approximately \$136.8 million expires in years 2005 through 2021, if not utilized.

## Net Income (Loss)

Net income was \$4.1 million for the nine months ended September 30, 2002, and net loss was \$17.9 million for the nine months ended September 30, 2001. The improvement in net profit was due to increased product revenue, lower expenditures, principally net research and development expenses, and the absence of goodwill amortization charges.

Our net loss in 2001 of \$35.2 million was greater than our net loss in 2000 of \$25.4 million and \$34.5 million in 1999. The 2001 net loss largely was due to lost revenue resulting from the delay in completing the SV1ex enhancements until late November 2001. The 2000 net loss includes a loss of \$8.0 million during the first quarter, prior to our acquisition of the Cray Research business unit.

We expect that our revenue in 2003 will be at least \$200 million and that our pre-tax net operating income will be in the range of 5% to 10% of revenue.

## Liquidity and Capital Resources

Cash, cash equivalents and accounts receivable totaled \$52.6 million at September 30, 2002, compared to \$37.1 million at December 31, 2001, and \$30.5 million at December 31, 2000. Over that period, cash increased from \$4.6 million to \$27.4 million, while restricted cash balances, which serve as collateral for capital equipment loans and leases, decreased from \$761,000 to \$38,000. At September 30, 2002, we had working capital of \$22.3 million compared to working capital deficits of \$5.7 million at December 31, 2001, and \$25.9 million at the end of 2000.

The reduction in net cash used in operating activities for the first nine months of 2002 of \$4.5 million compared to \$27.7 million for the first nine months of 2001 was primarily due to \$4.1 million of net income for the nine months ended September 30, 2002, compared to a net loss of \$17.9 million for the nine months ended September 30, 2001. For the nine months ended September 30, 2002, net operating cash was used primarily by increases in other assets and decreases in other accrued liabilities, warranty reserve and accounts payable.

Net cash used by operating activities was \$26.2 million for the year ended December 31, 2001, compared to net cash provided of \$5.1 million in 2000. For 2001, net operating cash flows were primarily attributed to our net loss, offset by depreciation and amortization, along with decreases in accounts payable and warranty

reserves. The increase in net cash used in operating activities in 2001 over 2000 was primarily attributed to the acquisition of the Cray Research business unit in April of 2000.

Net cash used by investing activities was \$5.4 million for the nine months ended September 30, 2002, compared to \$8.7 million for the corresponding 2001 period. Net cash used by investing activities for the 2002 period consisted of \$3.9 million spent primarily for computers and electronic test equipment, computer software and furniture and fixtures, and \$1.5 million for service spares. In the 2001 nine-month period, the net cash used in investing activities was primarily for electronic test equipment and computer hardware purchases. Net cash used in investing activities was approximately \$9.5 million for the year ended December 31, 2001, compared to \$57.4 million for 2000, principally for the Cray Research acquisition.

Net cash provided by financing activities was \$24.4 million for the nine months ended September 30, 2002, compared to \$36.2 million for the corresponding 2001 period. For the nine months ended September 30, 2002, we raised \$15.6 million through the sale of common stock and warrants, and received another \$10.8 million through the exercise of warrants that otherwise would have expired. Net cash provided by financing activities was \$44.0 million for the year ended December 31, 2001, compared to \$47.0 million for 2000. In 2001, we raised \$24.9 million through the sale of preferred stock to NEC, and in November we issued \$9.3 million in convertible subordinated notes. We also obtained a three-year term loan of \$7.5 million in 2001.

Over the next twelve months, our significant cash requirements will relate to operational expenses, consisting primarily of personnel costs, costs of inventory and spare parts as we ramp up production of Cray X1 systems, third-party engineering expenses, and acquisition of property and equipment. Our fiscal year 2003 capital expenditure budget for property and equipment is estimated currently at \$9.5 million. In addition, we lease certain equipment used in our operations under operating or capital leases in the normal course of business. We expect that operations over the next twelve months will generate positive cash flow. The following table is a summary of our contractual cash obligations as of September 30, 2002 (in thousands):

	Payments Due by Periods						
Contractual Obligations	Total	Less Than 1 Year	1-3 Years	4-5 Years	After 5 Years		
Notes payable	\$ 278	\$ 278	\$	\$	\$		
Term loan payable	4,464	2,143	2,321				
Capital lease obligations	548	304	262				
Operating leases	20,147	3,134	8,762	5,500	2,751		
Total contractual cash obligations	\$25,437	\$5,859	\$11,345	\$5,500	\$2,751		

At any particular time, given the high average selling price of our products, our cash position is affected by the timing of payment for product sales, receipt of prepaid maintenance revenue and receipt of government funding of research and development activities. While we believe our current cash resources plus the net proceeds of this offering will be adequate for the next twelve months, we may need to raise additional equity or debt capital if we experience lower than anticipated product sales due to general economic conditions or delays in the availability of Cray X1 systems for customer deliveries and delays in the receipt of governmental funding, or require additional capital for increased production requirements for the Cray X1 system. In addition, we may raise additional capital to enhance our cash position and working capital position. Future financings may not be available to us when needed or, if available, may not be available on satisfactory terms and may be dilutive to our shareholders.

#### BUSINESS

We design, develop, market and service high performance computer systems, commonly known as supercomputers. These systems provide capability and capacity far beyond typical mainframe computer systems and address the world s most challenging computing problems for government, industry and academia. We expect that most of our 2003 product revenue will come from sales of our Cray X1 system, the production version of which first shipped in December 2002. In mid-2002 we began a development project with Sandia National Laboratories to design and deliver a new, high bandwidth, massively parallel processing supercomputer system called Red Storm in 2004. We provide maintenance services to the worldwide installed base of Cray computers. We also offer professional services that leverage our industry technical knowledge. Certain technical terms used in this prospectus are defined in the glossary at the end of this prospectus.

#### **Our History**

In many ways our current history began on April 1, 2000, when we, as Tera Computer Company, acquired the operating assets of the Cray Research division from SGI, and renamed ourselves Cray Inc.

#### Tera Computer

Tera Computer Company was founded in 1987 with the purpose of developing a new supercomputer system based on multithreaded architecture. We had an initial public offering in 1995. In 2000 we were still in the development stage with limited revenue from sales to one customer, the San Diego Supercomputer Center, and approximately 125 employees, almost all of whom were located in our Seattle office.

### Cray Research

Cray Research was founded in 1972 by Seymour Cray and introduced its first product, the Cray-1, in 1976. Cray Research pioneered the use of vector systems in a variety of market sectors and dominated the supercomputer market in the late 1970 s and 1980 s. Cray Research introduced a series of vector based systems, including the Cray Y-MP, C90, J90, T90 and SV1 systems. Cray Research also developed leading high bandwidth massively parallel systems, notably the Cray T3D and T3E systems, using Alpha microprocessors from Digital Equipment and later Compaq Computer. In 1996, SGI acquired Cray Research and cancelled the development of the successors to the only two U.S. produced capability-class supercomputers at the time, the Cray T90 and T3E systems. In 1997, at the instigation of Cray Research, the U.S. government imposed extensive anti-dumping duties on Japanese vector supercomputers, effectively preventing them from competing in the U.S. market. SGI also moved a substantial number of the established Cray Research customers from Cray Research products to the SGI Origin line of products. In 1998 SGI and the Department of Defense entered into a cost-sharing contract for the development of the Cray X1 system (then code-named the SV2). In 1999 SGI announced that it would consider offers to purchase the Cray Research division.

#### Cray Research Acquisition

On April 1, 2000, we acquired the operating assets of the Cray Research business unit from SGI and changed our corporate name to Cray Inc. In that transaction, we acquired the Cray T90, SV1, T3E and other product lines, the Cray X1 development project and related cost-sharing contract, a service organization supporting Cray supercomputers installed in about 200 sites in the United States and overseas, integration and final assembly operations, software products and related experience and expertise, approximately 775 employees, product and service inventory, real property located in Chippewa Falls, Wisconsin, and the Cray brand name. Pursuant to a technology agreement, SGI assigned to us various patents and other intellectual property and licensed to us the rights to other patents and intellectual property. We paid SGI \$50.3 million in cash and issued SGI 1,000,000 shares of our common stock.

As part of the acquisition, we assumed responsibility for the cost of servicing the Cray T90 vector computers. We agreed with SGI that we would not utilize specified technology to develop successor products

to the T3E product line, and we agreed to limit our use of SGI s IRIX operating system to the Cray X1 product family.

#### **Post-Acquisition**

With the acquisition, we had to integrate our approximately 900 employees into one company, establish company-wide financial, communication and other networks, move employees out of SGI facilities into new offices, establish over twenty subsidiaries for our foreign sales and service operations, and either have service, sales and other contracts assigned to us or enter into new contracts with customers and vendors.

We immediately focused most of our available financial resources on the continued development of the Cray X1 system to keep the development on track both in terms of system capability and schedule. A majority of our revenue in 2000 and 2001 came from maintenance services on the worldwide installed base of Cray products. In order to generate product revenue until the Cray X1 development was completed:

we brought back the Cray T3E system from its end of life, with sales starting in the first quarter following the acquisition;

we continued to sell the Cray SV1 system and made processor and memory enhancements to it, resulting in the Cray SV1ex system which became available for sale in the fourth quarter of 2001; and

we continued development of our multithreaded architecture by re-implementing our Cray MTA-2 system in CMOS, a process essentially completed at the end of 2001.

In May 2001 the U.S. anti-dumping order against Japanese vector supercomputers was lifted, NEC invested \$25 million in us through our Series A convertible preferred stock and we became a distributor of the NEC SX series of supercomputers, re-branded under the Cray name, with exclusive rights in North America and non-exclusive rights outside of North America. In mid-2002 we began a development project with Sandia National Laboratories to design and deliver a new supercomputer system called Red Storm in 2004. While we continue to market the Cray SV1ex, the Cray MTA-2 and the Cray SX-6 systems, we expect that most of our 2003 and 2004 product revenue will come from sales of the Cray X1 system, with a smaller portion from the Red Storm project. See Product Offerings and Projects below.

Discussions that relate to periods prior to April 1, 2000, refer to our operations as Tera Computer Company, and discussions that relate to periods after April 1, 2000, refer to our combined operations as Cray Inc.

#### The High Performance Computer Industry

Since the pioneering Cray-1 system arrived in 1976, supercomputers defined simply as the most powerful class of computers at any time have contributed substantially to the advancement of knowledge and the quality of human life. Problems of major economic, scientific and strategic importance typically are addressed by supercomputers, which usually sell for several millions of dollars each, years before becoming tractable with less capable systems. For scientific applications, the increased need for computing power has been driven by highly challenging problems that can be solved only through numerically intensive computation. For engineering applications, high performance computers boost productivity and decrease risk and the time to market for companies and products in a broad range of industries. The U.S. government has recognized that the continued development of high performance computer systems is of critical importance to the national defense and the economic, scientific and strategic competitiveness of the United States.

#### Increasing Demand for Supercomputer Power

Applications promising future competitive and scientific advantage demand 10 to 1,000 times more supercomputer power than anything available today, including current low bandwidth systems and existing enterprise-class and mainframe servers. There are three principal drivers to the predicted substantial growth in the high performance computing market: the continuing demand for advanced design capability, increased focus on national security issues and the recognized need for more powerful scientific research tools.

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The demand for design capabilities grows seemingly without limit. Automotive companies are targeting increased passenger cabin comfort, better fuel mileage and improved safety and handling. Aerospace firms envision more efficient planes and space vehicles. Using genomic and proteomic technologies for drug development are areas of intensive research and substantial spending by research centers and biotechnology and pharmaceutical companies.

Governments have a wide range of unmet security needs, heightened by the recent emphasis on anti-terrorism. These needs primarily relate to burgeoning cryptanalysis requirements arising from a more diverse and growing number of sources and requirements for rapid and accurate analysis and fusion of information from many disparate sources. In addition, governments need better simulation and modeling of a wide range of weapons and battlefield scenarios and the computational ability to address various classified applications.

In the spring of 2002, the Japanese government announced the completion of the Japanese Earth Simulator project. This high bandwidth vector-based system currently is acknowledged as the world s most powerful installed computer system, with a peak speed of approximately 40 teraflops and high sustained operating performance on real applications. The Japanese Earth Simulator validates our proposition that high bandwidth and sustained performance are critical, and provides Japan with the opportunity to lead in scientific research in fields such as weather and climate, geophysics, nanotechnology and metallurgy.

#### The High Performance Computer Market

International Data Corporation ( IDC ), a leading industry market research firm, provides information regarding the high performance computing technical systems market, including projections. IDC segments the technical systems market based on prices, complexity and intended use, with classes for capability, enterprise, divisional, and departmental systems. Our focus primarily is on the highest-priced (\$1 million and up) capability segment where the features we are known for high speed processors coupled with extreme communication speed are needed to solve the world s most difficult computing problems. There are also needs for supercomputing systems of our caliber in portions of the technical enterprise segment, especially in production-oriented environments.

According to IDC, the combined capability and technical enterprise market totaled approximately \$1.9 billion in 2001 and is projected to grow at an annual rate of about 10% through 2006. The 2001 capability segment of this market represented about \$800 million, and was led, in approximate percentages, by IBM with 30%, followed by Hewlett-Packard with 21%, NEC with 17%, SGI with 15%, Fujitsu with 8% and Cray with 6%. Cray sales in 2001 primarily came from older systems, such as the Cray T3E and SV1, with the Cray SV1ex not available until December 2001 and the Cray X1 system then in development.

The annual revenue for capability class systems historically has fluctuated as much as 25% annually due to new product introductions, large system procurements and government funding cycles.

Again using data provided by IDC, our 2001 addressable market can be divided into the following usage-based segments: scientific research - 40%, biosciences - 20%, design engineering - 15%, classified/defense - 15% and other - 10%.

*Scientific Research.* This sector includes government laboratories and research centers that may also collaborate with university consortia to reach their objectives. These centers investigate computational modeling of a broad range of physical phenomena in such fields as astrophysics, chemistry, materials science, nuclear fusion and particle physics. Weather forecasting and climate modeling comprise about one-fourth of this market. The scientific research sector requires supercomputers with increasing levels of throughput and faster turn-around time, system robustness and the ability to process large volumes of data. With the success of the Japanese Earth Simulator, the U.S. Department of Energy has indicated its intention to support a competitive U.S. response. If this initiative is funded, the revenue in the scientific research segment should increase accordingly.

*Biosciences.* Since the mapping of the human genome, there has been an explosion in the volume of genomic and proteomic data available. High performance computers are used to predict molecular structure at

various levels of detail based on these data and to search genomic and proteomic data for structural similarities among and across individuals and species.

*Design Engineering.* Simulation of new products before they are built is an invaluable industrial tool. The automotive sector uses simulation to design lighter, safer and more durable vehicles. In the aerospace sector, software running on supercomputers simulates flight dynamics as well as aspects similar to those of the automotive sector. Government agencies such as NASA and the Department of Defense employ these techniques to improve design effectiveness, improve product quality and decrease the time to deployment.

*Classified/ Defense*. According to IDC forecasts, the long-term spending on national defense and homeland security is expected to increase as a result of the events of September 2001 and related anti-terrorism initiatives. The major effect will be an increase in both the number and size of systems purchased for computational uses in the classified and anti-terrorism arenas.

*Other.* A small number of customers in scientific industries, such as geosciences, geoengineering and other engineering functions, have objectives and application needs not addressed by widely used application programs and require the use of supercomputers.

#### The Need for High Bandwidth Supercomputers

Ironically, despite this demand for increased supercomputer power, supercomputers capable of exploiting these new opportunities have become rare. Today s supercomputer market is replete with low bandwidth cluster systems that loosely link together multiple commodity servers or personal computers by means of commercially available interconnect products. Because these systems are measured and priced based upon the number of transistors they contain, they are sometimes referred to as Type T systems. In Type T systems, each processor typically is directly connected to its own private (local) memory and the programmer must manage the movement of data among memory units and processors. As a result, computer systems relying on this architecture can be difficult to program. Given their low bandwidth, these systems are best suited for applications that can be partitioned easily into discrete tasks that do not need to communicate often with each other.

Vendors of low bandwidth Type T systems, such as IBM, design and build their processors and systems to meet the requirements of their larger, more commercial computer markets for servers and personal computers rather than for the benefit of supercomputer users. These vendors processors and memory systems do not have the internal bandwidth to communicate and process data at the speeds necessary to address today s most challenging supercomputer problems. Low bandwidth Type T systems can offer greater performance and price/ performance advantages on small problems and larger problems lacking communications complexity, but are inefficient for the most demanding and important challenges.

Why then is the supercomputer market largely filled with Type T systems? First, Type T systems handle less challenging problems well. Second, the U.S. scientific, engineering and government users have had to turn to these systems in recent years for their more difficult problems primarily because they had no alternative. The SGI acquisition of Cray Research in 1996 and the imposition by the U.S. government in 1997 of anti-dumping duties on Japanese vector supercomputer vendors combined to eliminate the availability of high bandwidth vector supercomputers to U.S. users. The SGI acquisition also resulted in the cancellation of the successor to the Cray T3E, the only commercially available high bandwidth non-vector product. With no competitor planning to offer next-generation high bandwidth systems in the United States, U.S. interest in investing in these systems diminished substantially.

The gap between need and availability for high bandwidth systems did not go unrecognized. In a report to the President s Information Technology Committee, a leading industrial supercomputer user observed in 1998 that, The high performance computing industry in the United States today appears almost as if someone hit the pause button. We re seeing a reduction in innovation. A December 2000 report from the U.S. climate researchers to the White House Office of Science and Technology Policy noted that, Parallel computers manufactured in the U.S., often with distributed memory [i.e., Type T systems], are difficult to use There are intrinsic limitations to the ability of climate-research algorithms to achieve high levels of

performance on these computers. Other scientists noted that using tens of thousands of commodity chips may provide adequate capacity (peak flop rates), but not adequate capability, because of lack of memory bandwidth.

Type T systems lack the ability to complete predictive modeling of natural systems and physical phenomena within useful timeframes. For example, we estimate that it would take over four months to detect, identify and evaluate a wildfire using today s fastest U.S. made Type T supercomputers. The largest configurable Cray X1 system could reduce that time to approximately three hours. To perform this calculation in approximately five minutes would require a system with a sustained performance of at least one petaflops.

In order to create lighter, safer, more durable vehicles, the automobile industry would like to be able to conduct full vehicle simulation with detailed modeling of all components, including the occupants and wind noise and vibration. Today, a simplified partial simulation of even one second of actual driving time would take from 50 to 60 days of computational time. This is not acceptable, and automobile manufacturers continue to use expensive proving ground and other tests for their vehicles. We estimate that one 64-processor Cray X1 system could reduce the time to run these current simulations to one tenth as long, to five to six days.

To run a larger number of more accurate simulations such as increasing the range of vibration frequencies and simulating the entire powertrain would increase the run time by factors of hundreds or thousands. A low-resolution simulation that takes 50 days using currently available systems would require more than 85 years of computer time using higher resolution methods. Such valuable simulations of physical systems will not be possible to run in any useful time period until computers with sustained operating performance levels in excess of one petaflops are available.

We plan to offer a system capable of running a variety of challenging applications at sustained performance in excess of one petaflops by 2010. See Product Offerings and Projects.

#### **The Cray Solution**

We are dedicated solely to the high performance computer market. We believe that by concentrating our product roadmap on high bandwidth interconnect systems and highly capable processors (whether developed by ourselves or others), we are in the best position to provide supercomputer systems with high sustained operating performance that meet the market s most demanding needs.

The greatest differentiator between our systems and Type T systems, such as clusters, is bandwidth. When we speak of bandwidth, we mean the ability of processors to communicate with the system s memory, with other processors and with input/output (I/O) connections. Because our systems employ more connections, or wires, we package these connections more densely than our major competitors, and we transfer data through these connections at very high rates, our supercomputers are able to handle more data at higher speeds. As our systems are optimized for bandwidth and internal communications, they are sometimes referred to as Type C systems because they emphasize communication capabilities rather than transistors.

Type C systems are important because the world s most challenging scientific and technical computing problems require many processors to communicate with each other frequently during computation. These processors need to have fast access to large memory and quantities of data. Low bandwidth microprocessor-based Type T systems are not designed for these demanding requirements. They do not support high bandwidth communications and therefore cannot deliver the performance necessary for these critical applications.

Our high performance computer systems are designed to provide high actual sustained performance on difficult computational problems. Theoretical peak performance is the highest possible speed at which a computer system can operate (obtained simply by multiplying the number of processors by the designed rated speed of each processor), and is always a theoretical number. Sustained performance, always lower than peak, is the actual speed at which a supercomputer system operates running an application program. Many Type T systems offer high theoretical peak performance. However, due to their low internal bandwidth and distributed memory, their performance on complex applications frequently is a small fraction of their

theoretical peak performance. While sustained performance may vary widely on different applications, we expect our Cray X1 system to operate on a sustained basis from 20% to 50% of its peak performance. Large cluster, or Type T, systems generally operate at less than 10% of their theoretical peak performance and, as these systems become larger, their efficiency declines even further.

We expect our systems to provide price/performance advantages over low bandwidth cluster systems when performance on real applications used at supercomputer sites is taken into account. In addition, our systems typically use far less electric power and occupy less space than cluster systems and, as a result, our systems have significantly lower costs of operation. And since our systems offer greater capability they run application programs faster rather than at the beginning they provide greater operating efficiency to the user.

### The Cray Strategy

Our mission is to become the premier provider of supercomputer solutions for our customers. Key elements of our strategy include:

*Focus on high performance computer systems with high bandwidth that run customer applications at high sustained speeds.* Our systems are designed to process very large quantities of data quickly and to provide high actual performance on the most difficult computational problems.

*Leverage our strong brand, reputation and pioneering position to increase our market share.* Cray Research introduced the first supercomputers more than 25 years ago, and we have remained focused solely on the high performance computer market. We intend to leverage our strong Cray brand and reputation to increase our share of the government, industrial and academic markets for supercomputers.

*Pursue an aggressive research and development plan to implement our product roadmap.* We plan to continue to devote a substantial portion of our resources to research and development activities that lead to supercomputers with higher speed and increased usability characteristics. We currently participate in government research and development programs that co-fund our Cray X1, Cray X1e and Black Widow programs and our Red Storm and Cascade projects. We expect that these and future activities will create technologies that we can use to meet the needs of our customers.

Build relationships with key researchers to penetrate emerging government and industrial markets. The most challenging problems require far more computing power than is currently available. We are developing relationships with government and industrial researchers and users to understand their needs for increased speed and for other supercomputer characteristics that would allow them to solve these problems.

#### **Our Target Market and Customers**

Our target markets for 2003 and 2004 principally include the government/classified, scientific research, weather/environmental, automotive and aerospace, and biosciences markets. In certain of our targeted markets, such as the government/classified and scientific research markets, customers have their own application programs and are accustomed to using new, less proven systems. Other target customers, such as automotive and aerospace firms and some governmental agencies, require third-party application programs in production environments. We are currently devoting significant resources to porting widely used third-party application programs to the Cray X1 system with the expectation that deliveries to such customers will begin in 2004.

#### Government/ Classified

Government agencies have represented a significant segment for Cray Research and ourselves for many years. Certain governmental departments continue to provide partial funding support for our research and development efforts to meet their objectives. We expect long-term spending on national security and defense to increase. Current and target customers include Department of Defense classified customers and the Department of Energy, which funds the Sandia National Laboratories, Los Alamos National Laboratory and Lawrence Livermore National Laboratory, and certain foreign counterparts.

### Scientific Research

This segment includes both unclassified governmental and academic research laboratories and centers. The success of the Japanese Earth Simulator has spurred increased interest in Type C supercomputers in basic research in areas such as climate and physics. The Department of Defense, through its Defense Modernization Program, funds a number of research organizations; The Army High Performance Computing Research Center in Minneapolis and the Arctic Region Supercomputer Center in Fairbanks, for example, are early purchasers of our new Cray X1 system. The Office of Science in the Department of Energy, which funds the Oak Ridge National Laboratory, Argonne National Laboratory and National Energy Research Scientific Computing Center, is a key target customer as is the National Aeronautics and Space Administration.

#### Weather/ Environmental

While short-term weather forecasting has largely moved to low bandwidth cluster systems, more challenging climate modeling applications require increasing speed and larger volumes of data and thus are targets for our Type C systems. The success of the Japanese Earth Simulator has spurred interest in high bandwidth systems in this segment. Cray supercomputers are used in weather centers worldwide, from the United Kingdom to China. We have announced a sale of a Cray X1 system to the Spanish National Institute of Meteorology, and we are pursuing proposals to weather and climate centers in the United States and other countries.

#### Automotive and Aerospace

These industries, a subset of the design engineering market segment, use supercomputers to design lighter, safer and more durable vehicles as well as to study wind noise and airflow around the vehicle. Several of the major automobile companies and aerospace companies are Cray customers.

#### Biosciences

While we do not expect this to be a significant market for us in the near term, we believe this emerging segment will contribute to our long-term growth. We currently have a system used for computational drug design at a drug manufacturer and ongoing bioscience collaborative efforts with various laboratories. In addition, bioscience work is planned for our new systems that will be installed at Sandia National Laboratories and the Arctic Region Supercomputer Center.

# **Product Offerings and Projects**

Our high performance computer products provide high bandwidth and other capabilities needed for exploiting new and existing market opportunities. Among supercomputer vendors, we offer the largest variety of products and services in order to address the broadest range of customer requirements and market segments. Our goal is to bring major enhancements and/or new projects to market every eighteen to twenty-four months.

With the Cray X1 system as the cornerstone, we now have developed a product roadmap of high performance computer systems that stretches past 2010, with a goal of then delivering systems capable of running a variety of challenging applications at sustained speeds in excess of one petaflops (1,000 trillion floating point operations per second).



# Cray X1 System

We have just completed hardware development of the new Cray X1 system, which incorporates in its design both vector processing capabilities from the long line of Cray Research vector systems and massively parallel capabilities analogous to those of our T3E system. The Cray X1 system is an extreme performance supercomputer aimed at the high end of the vector processing market and the high end of the market for massively parallel systems. After a five year development program, we shipped five early production systems in the third quarter of 2002 and a full production system in the fourth quarter of 2002. We have just commenced a manufacturing ramp-up of this system. We continue to work on enhancements to the Cray X1 system hardware and software and porting application programs to provide the features and stability required in a production environment by governmental and industrial users. Our expected selling focus for the Cray X1 system covers a range of peak performance from 200 gigaflops to multiple tens of teraflops. Various U.S. and foreign governmental agencies will be early customers of the Cray X1 system.

We are developing enhancements to the Cray X1 system which will significantly increase processor speed and capability. We will be able to add these enhancements to Cray X1 systems in the field.

# **Black Widow**

Following the Cray X1 product family will be the product family code-named Black Widow that is now planned to be introduced as an initial system followed by two major upgrades. Black Widow systems will have an instruction set compatible with the Cray X1. We expect that the initial Black Widow systems will have a peak performance of several hundred teraflops that, with two enhancements, will grow to a peak performance in excess of one petaflops.

# Sustained Petaflops Systems

By 2010, our goal is to have high performance computer systems operating applications at sustained speeds in excess of several petaflops. We expect three major programs or projects will influence these future systems in addition to our planned products: the Red Storm project with Sandia National Laboratories, our multithreaded effort represented by the Cray MTA-2 and our Cascade project. We will utilize advancements in operating systems, interconnect systems and other features from these programs and projects into the products on our product roadmap.

#### **Red Storm Project**

In mid-2002, we contracted with Sandia National Laboratories to design and deliver a new massively parallel processing system, called Red Storm, that will use 10,000 of the upcoming Opteron processors from Advanced Micro Devices connected via our proprietary low-latency, high bandwidth, three dimensional mesh interconnect network. The Red Storm project will involve critical network and Linux-based operating system development that may be applicable to our product roadmap. We plan to review the applicability of this project to the needs of other potential customers.

#### MTA-2 System

We were formed originally under the name Tera Computer Company to pursue a significant breakthrough in high performance computing by developing a scalable uniform shared memory system that utilizes a multithreaded architecture and a high bandwidth interconnection network. This system is designed to provide programming ease, particularly for new application programs. In 2000 and 2001, we were heavily engaged in re-implementing the MTA system from gallium arsenide technology to more-mainstream CMOS technology. The first MTA-2 system was delivered in December 2001 to the Electronic Navigation Research Institute in Japan. In 2002, we delivered a 40-processor MTA-2 system to the Naval Research Laboratories, which plans to make this system available for investigative purposes to its own researchers and to the Department of Defense national research community. The Cray MTA-2 is aimed at new applications not well served by vector or cluster systems, such as dynamically adaptive meshes, data sorting and problems benefiting from advanced scalability, large uniform shared memory and easier parallel programming. For example, the Cray MTA-2 has shown a significant performance advantage on so-called Monte Carlo codes used in a wide range of sectors, from nuclear physics to finance.

#### The Cascade Project

In mid-2002, we signed an agreement with Defense Advanced Research Projects Agency ( DARPA ) to initiate an advanced research program leading to the development of a commercially available system capable of running with sustained performance in excess of one petaflops by 2010. In addition to having high sustained performance, the resulting system is to be designed to be much easier to program, more broadly applicable, and more robust than current designs. DARPA signed similar agreements with IBM, SGI, Hewlett-Packard and Sun Microsystems, paying each company approximately \$3 million to pursue a one year concept study. We have teamed with Stanford, CalTech/ Jet Propulsion Laboratories, and Notre Dame to investigate an array of advanced design concepts leading to a Phase 2 proposal in early 2003. DARPA will fund up to three vendors for three additional years of continued research and development to further define and validate the proposed system design. Phase 2 funding, if approved by Congress, will be approximately \$10 million per vendor per year. Finally, in 2006, DARPA plans to select up to two vendors proposed systems for production as final products, with delivery in 2010 or 2011.

#### Vector Systems

We currently market two classic vector systems, the Cray SV1ex system and the Cray SX-6.

The Cray SV1ex system provides substantial enhancements to the predecessor Cray SV1 product. Prior to the introduction of the Cray X1 and Cray SX-6 systems, the system s processor was among the fastest of any currently available supercomputer, vector or non-vector; and the Cray SV1ex system s cache-based memory (now shared by the Cray X1 system) significantly improves performance for problems that can make good use of cache memory. The targeted selling focus for the SV1ex systems is 8 to 64 gigaflops, with typical selling prices ranging from \$1 million to \$2 million. We expect to sell SV1ex systems primarily to existing customers as upgrades to prior generation vector systems.

Pursuant to our distribution agreement with NEC, we currently market the NEC SX-6 system, rebranded as the Cray SX-6, to industrial, academic and governmental customers requiring intense computing power, very large high performance memory and high I/ O rates on a vector platform. These systems offer

high reliability in a balanced, commercial quality system. The targeted selling focus for the Cray SX-6 supercomputers is from 16 to 64 gigaflops, with expected selling prices ranging from \$1.5 million to \$3 million.

#### **Professional Services**

In December 2001 we formed a professional services organization to support our emphasis on providing solutions rather than just computer systems to our customers. Our professional services team provides consulting, integration of Cray products and cluster solutions, custom hardware and software engineering, advanced computer training, site engineering, data center operation and time-share computing services. These professional services leverage our reputation and skills for services and industry technical leadership. We offer these services into all high performance computing markets, both in connection with and independent of product sales.

#### Technology

Our leadership in the high performance computer industry depends on successful development and introduction of new products and enhancements to existing products. Our research and development activities are focused on system architecture, hardware and software necessary to implement our product roadmap.

#### Architecture

We are the only company in the world to provide systems that use or combine all three of the basic high performance computer architectures vectors, massively parallel and multithreading.

Cray Research pioneered the use of vector systems, from the Cray-1 to the Cray C90 and T90 systems. These systems typically use a moderate number (one to 32) of very fast custom processors in connection with a shared memory. Vector processing has proven to be highly effective for many scientific and engineering application programs, which over the years have been written to maximize the number of long vectors. Traditional vector systems do not scale effectively (that is, increase performance by increasing the number of processors) past a limited number of processors. We currently market two classic vector supercomputers, the Cray SV1ex and Cray SX-6 systems.

Massively parallel processing architectures typically link tens, hundreds or thousands of standard or commodity processors to act either on multiple tasks at the same time or together in concert on a single computationally-intensive task. Type T systems connect each processor directly to its own private memory and the programmer must manage the movement of data among memory units and processors. Consequently these systems can be difficult to program. Type C massively parallel systems, unlike low bandwidth clusters, have high bandwidth and low latency interconnect systems and are said to be tightly coupled the Cray T3E and the Red Storm project are examples of high bandwidth massively parallel systems that employ standard microprocessors.

The Cray X1 system is revolutionary in that it is the first supercomputer that combines the attributes of both vector and high bandwidth massively parallel systems. The Cray X1 has up to 64 processors per cabinet and a shared memory. The Cray X1 system can run small problems as a vector processor would or, by focusing many processors on a task, the Cray X1 operates as a massively parallel system with a system-wide shared memory and a single-system image. The Cray X1 system is designed to provide efficient scalability and high bandwidth to run complex applications at high sustained speeds.

We are the only company building supercomputers based on multithreaded architecture. Our MTA-2 system is designed to have sustainable high speed, be broadly applicable, easy to program, provide scalability as systems increase in size, and have balanced I/ O capability. The MTA architecture supports up to 128 separate threads of execution per processor, with zero switching overhead between threads. The multithreading processors make the MTA-2 system latency tolerant and, with the system s flat shared memory, able to address data anywhere in the system. The processors, memory and I/ O are interconnected by a high bandwidth packet switching network.

## Hardware

We have extensive experience in designing all of the components of high performance computer systems the processors, the interconnect system and controls, the I/ O system and the supporting cooling infrastructure to operate together. Our hardware research and development experience includes:

Integrated circuit design we have experience in designing custom and standard cell integrated circuits. Our processors and other integrated circuits have special features that let them use the high available memory bandwidth efficiently. We work closely with our suppliers to take advantage of the latest advances in high speed, high density integrated circuit technology.

High speed interconnect systems we design high speed interconnect systems using a combination of conventional and microwave circuits, high density connectors and carefully chosen transmission media together with complex memory and cache controls to operate with our network protocols and highly optimized logic design. We are investigating the use of optical interconnects for future systems.

Printed circuit board design our printed circuit boards are some of the most sophisticated in the world, often more than 40 layers packed with wires and inter-layer connections.

System I/O we design high performance I/O interfaces that deliver high bandwidth transfer rates and large capacity storage capabilities using low cost devices in highly reliable configurations.

Packaging and cooling we use very dense packaging in order to produce systems with the necessary bandwidth at reasonable costs. This generates more heat per unit volume. We use specialized cooling techniques to address this issue, including immersion, conductive and spray cooling using various liquids and high volume air cooling.

Fault tolerance we design our systems to be tolerant of component failure. As individual components fail, our systems operate with minimal adverse performance impact due to designed alternative circuits and paths. We closely coordinate our hardware and operating system design with field service requirements for fast repair with minimal impact to users.

# Software

We design and maintain our system software internally. We support multiple operating systems, although all are based on UNIX. The Cray X1 operating system is UNIX-based with common UNICOS extensions. We offer UNICOS/mk in the T3E, UNICOS in the SV1ex and earlier vector processing systems and a UNIX-based system called Cray MTX for the Cray MTA-2 system. The Cray SX-6 system and successors use NEC s SUPER-UX operating system, also based on UNIX.

We continue to design and build highly optimized programming environments and performance management diagnostic software products that allow our customers to obtain maximum benefit from our systems. In addition to supporting third-party applications, we develop advanced algorithms and other approaches to improving application performance. We also purchase or license software technologies from third parties when necessary to provide appropriate support to our customers, while focusing on our own resources where we add the highest value.

#### Maintenance and Support

Our extensive worldwide maintenance and support systems provide us with a competitive advantage and a predictable flow of revenue and cash. Support services are provided under separate maintenance contracts with our customers. These contracts generally provide for support services on an annual basis, although some cover multiple years. While most customers pay for support monthly, others pay on a quarterly or annual basis.

Our employees providing these services include field service engineers, product and applications specialists and product support engineers. They are supported by a central support services group located in

Chippewa Falls, Wisconsin. On December 1, 2002, we had 94 field support personnel in the United States and Canada, another 82 support personnel in other countries and 70 employees providing central support services. Most of our support engineers are based at customer sites and thus have knowledge of the customer s requirements for system and application program performance and the competitive situation.

#### Sales and Marketing

We primarily sell our products through a direct sales force that operates throughout the United States and in Europe, Canada, Japan and Asia-Pacific. We serve smaller foreign markets through sales representatives.

As of December 1, 2002, we had 35 sales staff, including sales representatives, sales managers, pre-sale analysts and administrative personnel located in the United States and Canada and 52 sales staff located overseas.

Our marketing staff has a strategic focus on our target markets and those solutions that will facilitate our customers success in solving their most challenging scientific and engineering problems. On December 1, 2002, we had 23 employees in our marketing group, all in the United States and Canada.

No single end-user customer accounted for 10% or more of our revenue for each of the last three years, but agencies of the United States government, both directly and indirectly through system integrators and other resellers, accounted for approximately 85% of our 2001 revenue and 54% of our 2000 revenue. Information with respect to our international operations and export sales is set forth in note 14 to the consolidated financial statements incorporated by reference in this prospectus from the 2001 Form 10-K Annual Report.

#### Manufacturing

While we design many of the hardware components for all of our products, we subcontract the manufacture of these components, including integrated circuits, printed circuit boards, flex circuits, memory modules, machined enclosures and support structures, cooling systems, high performance cables and other items to third-party suppliers. Our strategy is to avoid the large capital commitment and overhead associated with establishing full-scale manufacturing facilities and to maintain the flexibility to adopt new technologies as they become available without the risk of equipment obsolescence. We perform final system integration and testing of our hardware systems.

Our manufacturing facilities are located in Chippewa Falls, Wisconsin. At December 1, 2002, we had 100 full-time employees in manufacturing.

Our systems incorporate some components that are available from one or limited sources. Key components that are sole-sourced include our integrated circuits and processors, interconnect systems and memory products. We obtain integrated circuits for our vector and Cray X1 systems from IBM, for the Cray MTA-2 system from Taiwan Semiconductor Manufacturing Corporation and for the Red Storm project from Advanced Micro Devices, Inc. IBM also provides packaging for our vector and Cray X1 systems while Kyocera America, Inc., provides packaging for our MTA-2 system. We obtain custom interconnect components for our Cray X1 and MTA-2 systems from InterCon Systems, Inc., and we obtain I/O systems for our Cray X1 and MTA-2 systems from Samsung Semiconductor, Inc. We acquire power modules and spray cap cooling systems for the Cray X1 from SAE Power Incorporated and Parker Hannifin Corporation, respectively. We use Celestica, Inc., to assemble our vector and Cray X1 systems and for repair of components for these systems.

Our procurements from these vendors are primarily through purchase orders. We have chosen to deal with sole sources in these cases because of the availability of specific technologies, economic advantages and other factors. We also have sole or limited sources for less critical components, such as peripherals, power supplies, cooling and chassis hardware. Reliance on single or limited source vendors involves several risks,

including the possibility of shortages of key components, long lead times, reduced control over delivery schedules and changes in direction by vendors.

#### Competition

The high performance computer market is intensely competitive. The barriers to entry are high, as is the cost of remaining competitive. We compete by offering systems with superior sustained performance, price/ performance based on that sustained performance and lower cost of operation coupled with our excellent post-sale service capabilities and established customer relationships.

IBM, SGI, Hewlett-Packard and Sun Microsystems offer Type T and low bandwidth massively parallel systems for the high performance market. These systems offer greater performance and price/ performance on small problems and larger problems lacking complexity and offer higher theoretical peak performance.

Internationally we compete primarily with IBM and NEC. While IBM offers large Type T systems, NEC offers high bandwidth vector-based systems with a large suite of ported application programs. We have exclusive rights to market NEC vector processing supercomputers in North America, subject to certain volume requirements; we have non-exclusive rights to market these computers elsewhere. Competition with NEC outside of North America is difficult due to NEC s aggressive pricing strategies. We believe there is a reasonable probability that we will not meet the required sales volumes under our agreement with NEC. If as a result NEC terminates our exclusive marketing rights in North America, then NEC may compete with us in North America as well.

Each of our competitors named above has substantially greater engineering, manufacturing, marketing and financial resources than we do.

### **Intellectual Property**

We attempt to protect our trade secrets and other proprietary rights through formal agreements with our employees, customers, suppliers and consultants, and through patent protection. Although we intend to protect our rights vigorously, there can be no assurance that our contractual and other security arrangements will be successful. There can be no assurance that such arrangements will not be terminated or that we will be able to enter into similar arrangements on favorable terms if required in the future. In addition, if such agreements were breached, there can be no assurance that we would have adequate remedies for any breach.

We have a number of patents relating to our hardware and software systems. We license certain patents and other intellectual property from SGI as part of our acquisition of the Cray Research operations. These licenses contain restrictions on our use of the underlying technology, generally limiting the use to historic Cray products, vector processor computers and the Cray X1 systems. Our general policy is to seek patent protection for those inventions and improvements likely to be incorporated into our products and services or to give us a competitive advantage. While we believe our patents and applications have value, no single patent is in itself essential to us as a whole or to any of our key products. Any of our proprietary rights could be challenged, invalidated or circumvented and may not provide significant competitive advantage.

There can be no assurance that the steps we take will be adequate to protect or prevent the misappropriation of our intellectual property. Litigation may be necessary in the future to enforce patents we obtain, and to protect copyrights, trademarks, trade secrets and know-how we own. Such litigation, if necessary, could result in substantial expense to us and a diversion of our efforts.

We may infringe or be subject to claims that we infringe the intellectual property rights of others. We currently are defending a lawsuit alleging that the evaporative spray cooling system in our Cray X1 product infringes patents and trade secrets held by a third party, and we intend to defend this lawsuit vigorously. See Legal Proceedings below.

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### Employees

As of December 1, 2002, we employed 840 employees, of whom 286 were in development and engineering, 100 were in manufacturing, 87 were in sales, 23 in marketing, 246 in service, 52 were in information systems, and 46 were in administration. We also employed 8 individuals on a temporary basis or as interns. We have no collective bargaining agreement with our employees. We have never experienced a work stoppage and believe that our employee relations are excellent.

# Legal Proceedings

On June 26, 2002, we accepted service of a complaint filed by Isothermal Systems Research, Inc. (ISR) of Clarkston, Washington, in the U.S. District Court for the Eastern District of Washington. We are the only defendant. The complaint alleges that SGI approached ISR to assist it in developing an evaporative spray cooling system for a supercomputer product (now the Cray X1), that in 1998 ISR and SGI entered into non-disclosure and product development agreements, that ISR disclosed ISR confidential information to the Cray Research division of SGI, and that SGI improperly breached and terminated the product development agreement. The complaint further alleges that, when we acquired the Cray Research business unit from SGI in 2000, we received assets and other information, including the ISR confidential information, and that we currently are utilizing the ISR confidential information and that such use is both improper and infringes three ISR patents relating to spray cooling technology. The complaint further alleges that we and SGI have improperly disclosed ISR confidential information. The complaint seeks judgment that we be enjoined from infringing the ISR patents, that ISR be awarded treble damages for our alleged willful infringement of the ISR patents, and that we have been unjustly enriched by the receipt, use and disclosure of the ISR confidential information. On November 12, 2002, we answered the ISR complaint, denying the substantive allegations. While we intend to defend this lawsuit vigorously, pre-trial discovery is just beginning and at this time we cannot predict the outcome of this lawsuit. The court has set March 1, 2004, as the trial date.

# Properties

Our principal properties are as follows:

Location of Property	Uses of Facility	Approximate Square Footage
Chippewa Falls, Wisconsin	Manufacturing, hardware development, central service and warehouse	222,000
Seattle, Washington	Executive offices, hardware and software development, sales and marketing	85,000
Mendota Heights, Minnesota	Software development, sales and marketing operations	40,000

We own 179,000 square feet of manufacturing, development, service and warehouse space in Chippewa Falls, Wisconsin and lease the remaining space described above.

We also lease a total of approximately 10,000 square feet, primarily for sales and service offices, in various domestic locations. In addition, various foreign sales and service subsidiaries have leased an aggregate of approximately 23,000 square feet of office space. We believe our facilities are adequate to meet our needs in 2003.

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### MANAGEMENT

Our executive officers and directors and their ages as of January 1, 2003, were as follows:

Name	Age	Position
James E. Rottsolk	58	Chairman, President and Chief Executive Officer
Burton J. Smith	61	Chief Scientist and Director
Christopher Jehn	59	Vice President Government Programs
Kenneth W. Johnson	60	Vice President Legal, General Counsel, and Corporate Secretary
Lori C. Kaiser	44	Vice President Marketing and Strategic Planning
David R. Kiefer	54	Vice President Product Engineering and Manufacturing
Gerald E. Loe	53	Vice President Worldwide Sales and Services
Scott J. Poteracki	49	Vice President Finance and Chief Financial Officer
Richard M. Russell	58	Vice President Asia Pacific Sales and Services
David N. Cutler	60	Director
Daniel J. Evans	77	Director
Kenneth W. Kennedy, Jr.	57	Director
Stephen C. Kiely	56	Director
William A. Owens	62	Director
Dean D. Thornton	73	Director

*James E. Rottsolk* is one of our co-founders and serves as our Chairman, President and Chief Executive Officer. He served as our President and Chief Executive Officer from our inception through September 2001, and was reappointed to those positions in March 2002. He has served as Chairman of the Board since December 2000. Prior to 1987, Mr. Rottsolk served as an executive officer with several high technology start-up companies. Mr. Rottsolk received a B.A. degree from St. Olaf College and A.M. and J.D. degrees from the University of Chicago.

*Burton J. Smith* is one of our co-founders and has been our Chief Scientist and a Director since early 1988. He served as our Chairman from 1988 to June 1999. He is a recognized authority on high performance computer architecture and programming languages for parallel computers. He is the principal architect of the MTA system and heads our Cascade project. Mr. Smith was a Fellow of the Supercomputing Research Center (now Center for Computing Sciences), a division of the Institute for Defense Analyses, from 1985 to 1988. He was honored in 1990 with the Eckert-Mauchly Award given jointly by the Institute for Electrical and Electronic Engineers and the Association for Computing Machinery, and was elected a Fellow of both organizations in 1994. Mr. Smith received S.M., E.E. and Sc.D. degrees from the Massachusetts Institute of Technology.

*Christopher Jehn* serves as Vice President Government Programs, a position he has held since joining us in September 2001. He served as the Assistant Director for National Security in the Congressional Budget Office from 1998 to 2001. From 1997 to 1998, he was a member of the Commission on Servicemembers and Veterans Transition Assistance, and also served in 1997 as the Executive Director of the National Defense Panel. Mr. Jehn was a Senior Vice President at ICF Kaiser International, Inc. from 1995 to 1997. Prior to 1995, he held executive positions at the Institute for Defense Analyses and the Center for Naval Analyses and served as Assistant Secretary of Defense for Force Management and Personnel from 1989 to 1993. He received a B.A. from Beloit College and a Master s degree in economics from the University of Chicago.

*Kenneth W. Johnson* serves as Vice President Legal, General Counsel and Corporate Secretary and has held those positions since joining us in September 1997. From September 1997 to December 2001 he also served as our Vice President Finance and Chief Financial Officer. Prior to joining us, Mr. Johnson practiced law in Seattle for twenty years with Stoel Rives LLP and predecessor firms, where his practice

emphasized corporate finance. Mr. Johnson received an A.B. degree from Stanford University and a J.D. degree from Columbia University Law School.

*Lori C. Kaiser* serves as Vice President Marketing and Strategic Planning, a position she has held since December 2001. She joined us in May 2001 as Director of Strategic Planning. Before joining us, she consulted with a software start-up from 2000 to 2001, and from 1995 to 2000 Ms. Kaiser held senior operational, sales and marketing positions at Icicle Seafoods, Inc. Prior to 1995 she held various marketing, sales and financial management positions in several industries, including audit and consulting positions with Deloitte & Touche LLP from 1981 to 1991. Ms. Kaiser has a B.A. in business from the University of Washington.

*David R. Kiefer* serves as Vice President Product Engineering and Manufacturing, a position he has held since December 2001. From April 2000, when he joined us, through December 2001, he held the position of Vice President Hardware Engineering. From 1996 to 2000, Mr. Kiefer was Director of Hardware Engineering at the Cray Research operations of Silicon Graphics, Inc. Prior to joining Silicon Graphics, he held a variety of engineering and engineering management positions with Univac and Cray Research, Inc. Mr. Kiefer received his B.S. in Electrical Engineering from the University of Wisconsin.

*Gerald E. Loe* serves as Vice President Worldwide Sales and Services, a position he has held since December 2001. He joined us in 1992 as Vice President Hardware Engineering and Manufacturing; he was named Vice President Hardware Engineering in 1996 and Vice President Worldwide Service in April 2000. Prior to joining us, he was Vice President of Operations at Siemens Quantum Inc., a high-end radiology ultrasound company, from 1989 to 1992. Mr. Loe received a B.S.M.E. from the Massachusetts Institute of Technology and a M.B.A. from Harvard Business School.

*Scott J. Poteracki* serves as Vice President Finance and Chief Financial Officer, a position he has held since October 2002. Prior to joining us, he served from March 2002, until October 2002, as the Chief Financial Officer of Racal Instruments Group, Ltd. of Irvine, California, a manufacturer of electronics test and measurement equipment and systems. Prior to joining Racal Instruments, he was Corporate Controller and Senior Director, Finance, of Broadcom, Inc., a leading provider of highly integrated silicon solutions that enable broadband digital transmission of voice, video and data. From 1978 to June 2000, when he joined Broadcom, Mr. Poteracki held a number of finance positions at Motorola, Inc, most recently as Corporate Vice President and Director, Finance, of its Internet and Networking Group and Vice President and Director, Finance, of its Computer Group. Mr. Poteracki received a B.S., Accounting, from the University of Illinois and an M.B.A. from Arizona State University and is a certified public accountant.

*Richard M. Russell* serves as Vice President Asia Pacific Sales and Services, a position he has held since December 2001. He joined us as Director of New Business Development in 1995 and was named as Vice President Marketing in March 1998. In February 2000 he was appointed Vice President International. Prior to joining us, he worked in a variety of technical, editorial and marketing positions at several high technology companies, including Burroughs Wellcome Research Laboratory, UK; Whitbread & Co, Ltd (UK); Auerbach Publishers and Consultants; and Cray Research, Inc. from 1976 through 1990.

David N. Cutler joined our Board in 1993. Mr. Cutler joined Microsoft Corporation in 1988 as Engineering Manager of Operating System Development and has been responsible for Windows NT development. He currently holds the position of Senior Distinguished Engineer. Prior to joining Microsoft, he was Senior Corporate Consultant at Digital Equipment Corporation. During his tenure at DEC, he managed DecWest in Bellevue, Washington, which produced the VAXELN operating system and the first Microvax computer. He previously managed the development of VMS and RSX 11 M, principal operating systems for DEC computers.

*Daniel J. Evans* joined our Board in 1990. Since 1989, Mr. Evans has been Chairman of Daniel J. Evans Associates, a consulting firm. He served as United States Senator from the State of Washington from 1983 to 1989; Chairman of the Pacific Northwest Power and Conservation Planning Council from 1981 to 1983; President of the Evergreen State College in Olympia, Washington from 1977 to 1983; and for three terms as Governor of the State of Washington from 1965 to 1977. Mr. Evans is a director of Flow International

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Corporation, Western Wireless, Inc., Archimedes Technology Group, Attachmate Corporation and the National Information Consortium, and a member of the Board of Regents of the University of Washington. Mr. Evans received his M.S. degree in civil engineering from the University of Washington.

*Kenneth W. Kennedy, Jr.*, joined our Board in 1989. Mr. Kennedy is the John and Ann Doerr Professor of Computational Engineering at Rice University. He also is currently Director of the Center for High Performance Software at Rice University. He directed the National Science Foundation Center for Research on Parallel Computation from 1989 to January 2000. From 1997 to 1999, Professor Kennedy served as Co-Chair of the President s Information Technology Advisory Committee and currently remains a member of that committee. He is a fellow of the Institute of Electrical and Electronics Engineers, the Association for Computing Machinery, and the American Association for the Advancement of Science and has been a member of the National Academy of Engineering since 1990. In 1999, he was named recipient of the ACM SIGPLAN Programming Languages Achievement Award, the third time this award was given. He received his M.S. and Ph.D. from New York University.

*Stephen C. Kiely* joined our Board in December 1999. He is Chairman and Chief Executive Officer of Stratus Technologies Inc., headquartered in Maynard, Massachusetts. Mr. Kiely has served in his present position at Stratus since February 1999 when Stratus was purchased from Ascend Communications. Mr. Kiely joined Stratus in 1994 and held various executive positions with Stratus, becoming President of the Stratus Enterprise Computer division in 1998. Prior to joining Stratus, Mr. Kiely held a number of executive positions with several information technology companies, including EON Corporation, Bull Information Systems, Prisma, Inc., Prime Computer and IBM. Mr. Kiely is a past member of the Advisory Council for the School of Engineering at Rice University; has served as a board member of the Massachusetts Technology Park Corporation; and was a member of an advisory board to the President of the State University of New York at New Paltz. Mr. Kiely received his B.A. in Mathematics at Fairfield University and his M.S. in Management at the Stanford University Graduate School of Business.

*William A. Owens* joined our Board in February 2001. Mr. Owens is vice chairman and co-chief executive officer of Teledesic LLC. Previously, he was president, chief operating officer and vice-chairman of Science Applications International Corporation (SAIC). He also served as Vice-Chairman of the Joint Chiefs of Staff; Deputy Chief of Naval Operations for Resources, Warfare Requirements and Assessments; commander of the U.S. Sixth Fleet; senior military assistant to Secretaries of Defense Frank Carlucci and Dick Cheney; and director of the Office of Program Appraisal for the Secretary of the Navy. Mr. Owens serves on the boards of Teledesic LLC, Symantec, Inc., Microvision, Inc., Polycom, Inc., TIBCO, Inc., British American Tobacco Industries, p.l.c., Nortel Networks Corporation, Telstra Corporation Limited, ViaSat, Inc., BIOLASE Technology, Inc. and Metal Storm LLC. In addition, he is a director of the Carnegie Corporation and the Department of Defense s Defense Policy Board. He is a graduate of the U.S. Naval Academy, with a bachelor s degree in mathematics. He also holds bachelor s and master s degrees in politics, philosophy and economics from Oxford University and a master s in management from George Washington University.

*Dean D. Thornton* joined our Board in January 2000. He served as President of Boeing Commercial Airplane Group from February 1985 until his retirement in January 1994. He was also an executive vice president of The Boeing Company and a member of its executive council. Mr. Thornton joined Boeing in 1963 as an assistant treasurer and was elected treasurer in 1966. He subsequently served in a variety of executive assignments, including vice president-finance, contracts and international operations for Boeing Commercial Airplane Group and vice president-general manager of the 767 Division. Mr. Thornton currently serves on the Board of Trustees of the Seattle Art Museum. Mr. Thornton received a B.S. in business from the University of Idaho.



# CERTAIN TRANSACTIONS

In connection with exercises of stock options by Mr. Loe in 1997, we loaned Mr. Loe \$147,273. Mr. Loe gave us a promissory note currently bearing interest at a compounded rate of 2.5% per year. With accrued interest, Mr. Loe owed us a total of \$182,079.53 at the end of 2002. The note is due in December 2004. On March 21, 2002, we entered into an agreement with Mr. Loe that we would forgive 50% of that loan on December 31, 2002, 25% on December 31, 2003, and the remaining 25% on December 31, 2004, if Mr. Loe continued to be employed by us on those dates. Pursuant to that agreement, we forgave \$91,039.76 of Mr. Loe s note on December 31, 2002.

As part of a financing completed in February 2002 under our shelf registration statement in which we raised gross proceeds of \$3,900,000, we paid a finder s fee of \$273,000 to Terren S. Peizer, who beneficially owns more than 5% of our common stock. As part of a financing completed in September 2002 under our shelf registration statement in which we raised gross proceeds of \$10,000,000, we paid a finder s fee of \$700,000 to Mr. Peizer.

#### PRINCIPAL AND SELLING SHAREHOLDERS

The following table sets forth material information regarding beneficial ownership of our common stock as of January 1, 2003, by:

the selling shareholders;

each person whom we know to beneficially own more than 5% of our common stock;

each of our executive officers;

each of our directors; and

all executive officers and directors as a group.

Except as noted below, the address of each person listed on the table is c/o Cray Inc., 411 First Avenue South, Suite 600, Seattle, WA 98104-2860, and each person named has sole voting and investment power over the shares shown as beneficially owned, except to the extent authority is shared by spouses under applicable law.

	Common Shares	Options or Warrants Exercisable Within	Benefic Ownership D Offering(	Prior to	Number of Shares	Benefic Ownership Offering(	o After
Name and Address	Owned	60 Days	Number	Percent	Offered	Number	Percent
5% Beneficial Owner							
Terren S. Peizer		5,157,408	5,157,408	8.43%		5,157,408	7.68%
11111 Santa Monica Blvd., #650							
Los Angeles, CA 90025							
Executive Officers							
James E. Rottsolk	291,623	676,820	968,443	1.71%			%
Burton J. Smith	271,295	666,252	937,547	1.65%			%
Christopher Jehn	200	19,791	19,991	*			*
Kenneth W. Johnson	42,257	233,956	276,213	*			*
Lori C. Kaiser	904	13,124	14,028	*			*
David R. Kiefer	13,199	126,664	139,863	*			*
Gerald E. Loe	60,136	219,697	279,833	*			*
Scott J. Poteracki							
Richard M. Russell	9,879	127,403	137,282	*			*

	Common	Options or Warrants Exercisable	Benefic Ownership D Offering(	Prior to	Number	Bene Ownersl Offerir	nip After
Name and Address	Shares Owned	Within 60 Days	Number	Percent	of Shares Offered	Number	Percent
Independent Directors							
David N. Cutler	41,927	65,595	107,522	*			*
Daniel J. Evans	31,143	43,499	74,642	*			*
Kenneth W. Kennedy, Jr.	2,192	52,499	54,691	*			*
Stephan C. Kiely	15,000	57,999	72,999	*			*
William A. Owens	5,000	41,999	46,999	*			*
Dean D. Thornton	15,999	27,000	42,999	*			*
All executive officers and directors as a group (15 persons)	800,754	2,372,298	3,173,052	5.43%			%

#### \* Less than 1%

- (1) This table is based upon information supplied by the executive officers, directors and beneficial shareholders. Mr. Peizer has sole voting and dispositive powers regarding the shares of common stock underlying certain warrants, which are held of record by Laphroig, LLC (warrants for 4,882,438 shares) and Chinaco LLC (warrants for 256,970 shares). The total shares beneficially owned and the percentage of common stock outstanding includes shares of common stock issuable pursuant to stock options and warrants held by the person or group in question which may be exercised or converted on January 1, 2003, or within 60 days thereafter.
- (2) The following persons disclaim beneficial ownership of the following shares:

Mr. Rottsolk disclaims beneficial ownership of 7,196 shares for which he has voting and dispositive powers as custodian for his son and nieces and nephews under the Washington Gifts to Minors Act.

Mr. Johnson disclaims beneficial ownership of 2,600 shares for which he has voting and dispositive powers as trustee of trusts for the benefit of his children, 100 shares owned by his wife and 500 shares owned by a child.

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#### UNDERWRITING

We and the selling shareholders have entered into an underwriting agreement with the underwriters named below. Needham & Company, Inc., SG Cowen Securities Corporation and C.E. Unterberg, Towbin are acting as managing underwriters of this offering. The underwriters obligations are several, which means that each underwriter is required to purchase a specific number of shares, but is not responsible for the commitment of any other underwriter to purchase shares. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase from us and the selling shareholders the number of shares of common stock set forth opposite its name below.

Underwriter	Number of shares
Needham & Company, Inc.	
SG Cowen Securities Corporation	
C.E. Unterberg, Towbin	
Total	6,250,000

The underwriters have advised us and the selling shareholders that the underwriters propose to offer the shares of common stock to the public at the public offering price per share set forth on the cover page of this prospectus. The underwriters may offer shares to securities dealers, who may include the underwriters, at that public offering price less a concession of up to \$ per share. The underwriters may allow, and those dealers may reallow, a concession to other securities dealers of up to \$ per share. After the offering to the public, the underwriters may change the offering price and other selling terms.

We have granted the underwriters an option to purchase up to 937,500 additional shares of common stock at the public offering price per share, less the underwriting discounts and commissions, set forth on the cover page of this prospectus. This option is exercisable during the 30-day period after the date of this prospectus. The underwriters may exercise this option only to cover over-allotments made in connection with this offering. If this option is exercised, each of the underwriters will purchase approximately the same percentage of the additional shares as the proportionate number of shares of common stock to be purchased by that underwriter as shown in the table above.

The following table shows the per share and total underwriting discount to be paid to the underwriters by us and the selling shareholders. These amounts are shown assuming both no exercise and full exercise of the underwriters option to purchase additional shares.

	Total	
Per Share	No Exercise	Full Exercise
\$	\$	\$

Subject to the terms and conditions in the underwriting agreement, the underwriters have agreed to purchase all the shares of our common stock being sold pursuant to the underwriting agreement if any of these shares of our common stock are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated.

The underwriting agreement provides that we and the selling shareholders will indemnify the underwriters against certain liabilities that may be incurred in connection with this offering, including liabilities under the Securities Act, or to contribute payments that the underwriters may be required to make in respect thereof.

The underwriters are offering the shares of our common stock, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the accuracy of our representations and warranties in the underwriting agreement and the receipt by the underwriters of officers

certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

We and our directors and officers have agreed not to offer, sell, contract to sell, grant options to purchase, or otherwise dispose of any shares of our common stock or securities exchangeable for or convertible into our common stock for a period of 150 days after the date of this prospectus without the prior written consent of Needham & Company, Inc. That agreement by us does not apply to options outstanding or options granted under our stock option plans, outstanding warrants, outstanding Series A preferred stock or the sale by us of shares under our employee stock purchase plan. The selling shareholders have agreed that they will not, directly or indirectly, sell, hedge, or otherwise dispose of any shares of common stock, options to acquire shares of common stock or securities exchangeable for or convertible into shares of common stock, for a period of 150 days after the date of this prospectus without the prior written consent of Needham & Company, Inc., subject to certain exceptions. Needham & Company, Inc. may, in its sole discretion and at any time without notice, release all or any portion of the securities subject to these lock-up agreements.

In connection with this offering, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of our common stock. Specifically, the underwriters may over-allot in connection with this offering by selling more shares than are set forth on the cover page of this prospectus. This creates a short position in our common stock for their own account. To cover over-allotments or to stabilize the price of our common stock, the underwriters may bid for, and purchase, our common stock in the open market or they may reduce any short position by exercising all or part of the over-allotment option.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter or dealer repays selling concessions allowed to it for distributing our common stock in this offering because the underwriters repurchase that stock in stabilizing or short covering transactions.

Finally, the underwriters may bid for, and purchase, shares of our common stock in market making transactions. These activities may stabilize or maintain the market price of our common stock at a price that is higher than the price that might otherwise exist in the absence of these activities or may prevent or retard a decline in the market price of our stock. The underwriters are not required to engage in these activities, and may discontinue any of these activities at any time without notice. These transactions may be effected on the Nasdaq National Market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common stock. In addition, neither we nor any of the underwriters make any representation that the underwriters will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

### LEGAL MATTERS

The validity of the common stock offered hereby will be passed upon for us by Stoel Rives LLP, Seattle, Washington. Certain legal matters in connection with this offering will be passed upon for the underwriters by Davis Wright Tremaine LLP, Seattle, Washington.

# EXPERTS

The financial statements incorporated by reference in this prospectus from the Company s Annual Report on Form 10-K for the year ended December 31, 2001, have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report, which is incorporated herein by reference, and have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

### WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission. Information in the registration statement has been omitted from this prospectus as permitted by the Securities and Exchange Commission s rules.

We file annual, quarterly and current reports and other information with the SEC. You may read and copy the registration statement and any other document that we file at the SEC s public reference room located at Room 1024, Judiciary Plaza, 450 Fifth Street N.W., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our SEC filings are also available to you free of charge at the SEC s web site at http://www.sec.gov.

Statements contained in this prospectus about the contents of any contract or other document referred to describe only those portions of the contract or document which are material. You should refer to the copy of the contract or other document filed as an exhibit to the registration statement.

The SEC allows us to incorporate by reference our publicly-filed reports into this prospectus, which means that information included in those reports is considered part of this prospectus. Information that we file with the SEC subsequent to the date of this prospectus will automatically update and supersede the information contained in this prospectus. We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 until all of the shares of common stock covered by this prospectus are sold.

The following documents filed with the SEC are incorporated by reference in this prospectus:

- 1. Our Annual Report on Form 10-K for the year ended December 31, 2001;
- 2. Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2002, June 30, 2002, and September 30, 2002;
- 3. Our Definitive Proxy Statement for the 2002 Annual Meeting of Shareholders, as filed with the SEC on April 17, 2002;

4. Our Current Reports on Form 8-K for the event of May 10, 2001, as filed on May 17, 2001; for the event of February 15, 2002, as filed on February 20, 2002; for the event of March 4, 2002, as filed on March 5, 2002; for the event of June 21, 2002, as filed on June 25, 2002; for the event on August 29, 2002, as filed on September 4, 2002; for the event of September 16, 2002, as filed on September 18, 2002; for the event of December 31, 2002, as filed on January 3, 2003; for the event of January 30, 2003, as filed on January 31, 2003; and for the event of February 5, 2003, as filed on February 7, 2003;

5. The description of our common stock set forth in our Registration Statement on Form SB-2 (Registration No. 33-95460-LA), including any amendment or report filed for the purpose of updating such description, as incorporated by reference in our Registration Statement on Form 8-A (Registration No. 0-26820), including the amendment thereto on Form 8-A/A.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, other than exhibits to such documents. You should direct any requests for documents to Investor Relations, Cray Inc., 411 First Avenue South, Suite 600, Seattle, Washington 98104-2860, telephone (206) 701-2000.

The information relating to us contained in this prospectus is not comprehensive and should be read together with the information contained in the incorporated documents. Statements contained in this prospectus as to the contents of any contract or other document referred to are not necessarily complete. You should refer to the copy of such contract or other document filed as an exhibit to the registration statement.

You should rely only on information contained or incorporated by reference in this prospectus. We have not authorized any other person to provide you with information different from that contained in this prospectus.

You should not assume that the information contained in this prospectus or the documents incorporated by reference is accurate as of any date other the date on the front of this prospectus or those documents.

# GLOSSARY

Application Program	A program that instructs a computer to carry out a specific task on behalf of a user.
Architecture	The basic design of a computer system, specifying matters such as how it operates and executes computations and instructions.
Bandwidth	The ability of processors to communicate with system memory, with other processors and with input/output connections.
Capability Systems	High performance computer systems configured to solve single instances of the largest, most demanding problems as quickly as possible. Capability systems typically can also function as capacity systems.
Capacity Systems	Computer systems that are shared resources for groups of users running relatively small programs, and are measured based on the aggregate work completed in a given time period. Capacity systems typically cannot also function as capability systems.
Clock Period	The rate at which the computer executes its calculating tasks. The shorter or lower the clock period, the faster the computer.
Cluster Systems or Clusters	High performance computer systems formed by loosely linking together multiple commodity servers or personal computers by means of commercially available interconnect products. Cluster systems have low bandwidth and are best suited for applications that can be partitioned easily into discrete tasks that require little or no internal communication.
CMOS	Composite metal-oxide silicon.
Distributed Memory Architecture	An organization of multiple processors in a single system where each processor has its own private memory. Such systems differ from traditional computers such as mainframes in requiring specialized software to manage the multitude of distributed banks of local memory.
Floating Point Operation	A computer operation such as multiplication or addition involving numeric data expressed in scientific notation. Computer system performance is represented by the number of floating point operations carried out per second (flops).
Gigaflops or Gflops	A computation rate of 1 billion floating point operations per second.
High Performance Computer	One of the fastest available large-scale computers at a given time, generally costing in excess of \$1 million each. Also referred to as a supercomputer.
I/ O or Input/ Output	The process of data exchange into and out of a computer system.
Integrated Circuit	An integrated circuit (chip) is an electrical circuit consisting of transistors and other devices located on a small chip of semiconductor material.
Massively Parallel Processor	A parallel processor composed of hundreds or thousands of microprocessors.
MIPS	Millions of Instructions Per Second. A measure of (scalar) computer speed. Vector processors are not usually measured in MIPS. G-1

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Multiprocessor	Computers with more than one processor, often having shared memory.
Nanosecond	One billionth of a second.
Operating System	A master program that manages the resources of a complete computer system and runs application programs, compilers or other work at the command of the user.
Parallel Processor	A computer system containing two or more processors and designed to apply multiple processors to a single computation.
Petaflops or Pflops	A computation rate of 1,000 trillion floating point operations per second.
Port	To make those changes needed in a software program so that it is able to run on a new computer system.
Price/ Performance	The ratio of a computer system s price to its speed.
Scalable and Scalability	Scalability describes how additional processors affect overall system performance. A system is described as scalable if it exhibits the attribute of increased performance with the addition of processors. In a linearly scalable system, doubling the number of processors yields twice the system performance.
Scalar Processing	Computation of one number per operation as opposed to vector processing which produces a (variable length) string of numbers from a single operation.
Shared Memory Computer	A computer system in which all processors can equally access all memory subsystems through a single address (name) space.
Sustained Performance	The actual speed at which applications in fact operate.
Teraflops	A computation rate of one trillion floating point operations per second.
Theoretical Peak Performance	The highest possible speed at which a computer system can operate (obtained simply by multiplying the number of processors by the top designed speed of each processor), always a theoretical number.
Thread	A single parallel activity executing within a parallel program.
Type C systems	High performance computer systems optimized for bandwidth and communications and are measured and priced emphasizing their communication capabilities. The Cray X1 system is a Type C system.
Type T systems	High performance computer systems optimized for their raw arithmetic processing power and are measured and priced based upon the number of transistors they contain. Cluster systems are Type T systems.
Vector Processing	Computation of a vector (string) of numbers with a single operation rather than computing a single number per operation as in scalar processing. G-2

[Layout drawing of our Red Storm system]

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# PART II

# INFORMATION NOT REQUIRED IN PROSPECTUS

#### Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the sale of common stock being registered. All amounts are estimates except the SEC registration fee and the NASD filing fee for listing additional shares.

	Amount to be Paid
SEC registration fee	\$ 4,986
NASD Filing Fee	5,560
Printing	25,000
Legal fees and expenses	225,000
Accounting fees and expenses	40,000
Blue Sky qualification and expenses	5,000
Transfer Agent and Registrar fees	4,000
Miscellaneous fees and expenses	11,454
-	
Total	321,000

#### Item 15. Indemnification of Directors and Officers.

Article VII of the Company s Restated Articles of Incorporation and Section 10 of the Company s Restated Bylaws require indemnification of directors and permits the indemnification of officers, employees and agents of the Company to the fullest extent permitted by the Washington Business Corporation Act (the Act ). Sections 23B.08.500 through 23B.08.600 of the Act authorize a court to award, or a corporation s board of directors to grant, indemnification to directors and officers on terms sufficiently broad to permit indemnification under certain circumstances for liabilities arising under the Securities Act.

Section 23B.08.320 of the Act authorizes a corporation to limit a director s liability to the corporation or its shareholders for monetary damages for acts or omissions as a director, except in certain circumstances involving intentional misconduct, self-dealing or illegal corporate loans or distributions, or any transaction from which the director personally receives a benefit in money, property or services to which the director is not legally entitled. Article VI of the Company s Restated Articles of Incorporation contains provisions implementing, to the fullest extent permitted by Washington law, such limitations on a director s liability to the Company and its shareholders.



Item 16. Exhibits.

1.1	Form of Underwriting Agreement
3.1	Restated Articles of Incorporation of the Company(1)
3.2	Statement of Rights and Preferences of the Series A Convertible Preferred Stock(2)
3.3	Restated Bylaws of the Company(3)
5	Opinion of Stoel Rives LLP on the legality of the shares being offered
23.1	Consent of Deloitte & Touche LLP
23.2	Consent of Stoel Rives LLP (included in Exhibit 5)
24	Power of Attorney(4)

(1) Incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2000.

(2) Incorporated by reference to the Company s Current Report on Form 8-K for the event of May 10, 2001, as filed on May 17, 2001.

(3) Incorporated by reference to the Company s Current Report on Form 8-K for the event of February 5, 2003, as filed on February 7, 2003.

(4) Previously filed with this registration statement. **Item 17.** *Undertakings.* 

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) that, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement;

(2) That, for the purpose of determining any liability under the Securities Act, each post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and

(3) To remove from registration by means of a post-effective amendment any of the securities being registered that remain unsold at the termination of the offering.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant s annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question, whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(d) The undersigned registrant hereby undertakes:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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# SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this amendment to the registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Seattle, State of Washington, on February 10, 2003.

#### CRAY INC.

By:

/s/ JAMES E. ROTTSOLK

James E. Rottsolk Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this amendment to the registration statement has been signed by the following persons in the capacities indicated below on February 10, 2003:

Signature and Title

/s/ JAMES E. ROTTSOLK\*

James E. Rottsolk, Chairman of the Board and Chief Executive Officer

/s/ BURTON J. SMITH\*

Burton J. Smith, Director

/s/ DEAN D. THORNTON\*

Dean D. Thornton, Director

/s/ DAVID N. CUTLER\*

David N. Cutler, Director

/s/ SCOTT J. POTERACKI\*

Scott J. Poteracki, Chief Financial and Accounting Officer

\*By

KENNETH W. JOHNSON

Kenneth W. Johnson Attorney-In-Fact /s/ DANIEL J. EVANS\*

Daniel J. Evans, Director

/s/ STEPHEN C. KIELY\*

Stephen C. Kiely, Director

/s/ KENNETH W. KENNEDY\*

Kenneth W. Kennedy, Director

/s/ WILLIAM A. OWENS\*

William A. Owens, Director

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# EXHIBIT INDEX

Exhibit Number	Description of Documents
1.1	Form of Underwriting Agreement
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3.2	Statement of Rights and Preferences of the Series A Convertible Preferred Stock(2)
3.3	Restated Bylaws of the Company(3)
5	Opinion of Stoel Rives LLP on the legality of the shares being offered
23.1	Consent of Deloitte & Touche LLP
23.2	Consent of Stoel Rives LLP (included in Exhibit 5)
24	Power of Attorney(4)

(1) Incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2000.

(2) Incorporated by reference to the Company s Current Report on Form 8-K for the event of May 10, 2001, as filed on May 17, 2001.

(3) Incorporated by reference to the Company s Current Report on Form 8-K for the event of February 5, 2003, as filed on February 7, 2003.

(4) Previously filed with this registration statement.

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