Microsoft CEO Summit

Four Seasons Hotel
4:30- 5:15 pm, Thursday, May 8, 1997

Meeting requested by Don Gips
Briefing prepared by Chris Ulrich & Jim Kohlenberger

EVENT

You speaking to approximately 200 CEOs about the importance of technology and innovation in the new economy. The Microsoft CEO Summit provides a unique forum for CEOs of prominent corporations around the world to engage in thought provoking discussions about the challenges and opportunities this new era presents. **Note:** Don Gips will be at the Summit all day and will give you a report in hold prior to your speech.

LOGISTICS

- Bill Gates will make brief remarks and proceed to introduce you for remarks. You will make your remarks and depart.

- You will remain in hold for a meeting with Reed Hundt.

Note: Following your speech, you will remain in hold for a meeting with Reed Hundt to discuss his future at the FCC. This meeting also gives you the opportunity to thank him for his work to connect schools and libraries.

PROGRAM NOTES

- Purpose of the Microsoft CEO Summit- According to Microsoft, they are holding this summit because the future of the corporation is imbedded in the evolution of technology. Technological advancement has ushered in a new age, one that enables enterprises to achieve greater efficiency, faster time to market, and a closer relationship with the customer. But the speed, pervasiveness, impact of rapid technological advancement will not leave the corporation unchanged; it has already begun to transform basic corporate structure and strategy. As the pace accelerates, technological innovation will challenge the most basic assumptions of how capitalism works.

  CEOs must adapt to an entirely new business reality; one in which the supply chain, organizational structure, relationship with customers, and the role of the CEO take new forms. Winners will proactively usher in a new captialism- one free of impediments and middlemen and rich in information and customization. To benefit employees, shareholders and customers, the inevitable synergy between business and technology must produce demonstrated and measurable value.TheMicrosoft CEO summit provides a unique forum

ATTACHMENTS

- Speech will be provided
- Schedule for the Summit
- List of Delegates to the Summit

Visit to Oracle Corporation Facility

Nashua
TBD, Wednesday, May 27, 1997

Meeting requested by Jim Kohlenberger
Briefing prepared by Jim Kohlenberger & Chris Ulrich

EVENT
You are dedicating the Oracle Corporation's New England Development Center, located in Nashua, NH. It is an example of the kind of high-tech economic revival that New Hampshire is enjoying. In the past couple of years, Oracle has nearly doubled its high-tech high-wage jobs here in New Hampshire. Oracle's new facility employs approximately 215 software developers and engineers. New Hampshire now has a higher concentration of high-tech jobs than any other state in the nation. Your visit to this facility allows you to highlight how New Hampshire has redefined itself as a high tech corridor for New England.

LOGISTICS (As of this writing, subject to change)

- You will be greeted by Chuck Rozwat (Pronounced Rose Watt) Oracle Senior Vice President from California Headquarters, Jan Schwartz an employee and development director who is introducing you, and Governor Jeanne Shaheen.

- The ceremonial dedication takes place inside the atrium of the development center with an audience of about 200 employees.

- Chuck Rozwat, Oracle Senior Vice President, will begin the program, present you with an Oracle New England Development Center jacket and cap, and then introduce the Governor. The governor will speak and then introduce Jan Schwartz. Jan Schwartz will introduce you.

- You will speak (talking points attached) and work the ropeline on departure.

YOUR ROLE/CONTRIBUTION

- Your visit gives you the opportunity to highlight New Hampshire i.e Nashua as an example that under President Clinton, America is on the right track investing in education and technology and promoting trade. It also demonstrates how the kind of high-tech jobs that are being created in New Hampshire because of this economic and technology climate will help carry New Hampshire into the 21st Century as a technology leader.

PROGRAM NOTES

- **New Hampshire's High Tech Sector**. New Hampshire has the highest concentration of high-tech employees in the nation, with 78 per 1,000 private sector employees in 1995 (for instance California has only 62 high tech jobs per 1000). And they are good paying jobs. The 1995 average wage of a high-tech worker in New Hampshire was 70 percent more than that of a private sector worker, $45,110 compared to $26,482. And because of these high-tech jobs, New Hampshire is exporting more. Between 1990 and 1995, New Hampshire's high tech exports grew 9 percent, from $723 million to $789 million making high tech exports 54% of total New Hampshire exports. The majority of these exports were sold in the EU and Canadian markets.

- **Oracle Development Facility in Nashua** - You are dedicating a 73,000 sq ft, Oracle facility which currently employs about 220 workers -- nearly double the number of workers who were employed by Oracle in New Hampshire in 1995. These new workers are a part of the more than 72,000 new jobs that have been created in New Hampshire since we came to office. The facility houses an 8000 sq ft lab, 20 miles of fiber optic cables, interactive television, and satellite technology utilized for collaborative software projects with companies across the United States. The center was first acquired by Oracle from Digital Equipment and was opened for business in March of 1996. Since the acquisition, Oracle has expanded from 115 workers to 220 workers with the majority of these workers coming from New Hampshire. Oracle chose to expand here because of quality of life, excellent business climate and the caliber of the workforce already in the region.

- **The Activities at this Facility.** Workers at this facility help to develop the Oracle8 Server -- an advanced relational database system. At this site, Oracle develops multimedia, Geo-Spatial, Very Large Database (VLDB), system and network management technologies. Theses advanced database technologies will enable data sharing, electronic commerce, and educational systems. Oracle 8, the Universal Data Server that they are helping to develop here will combine scalability to terabytes of information, support hundreds of thousands of networked connections, and manage multimedia data including image, text, video and geospatial data. This new product is scheduled to be released June 24th in Radio City Music Hall.

- **Virtual Teams Connect New Hampshire to the Future.** Virtually every project in this center uses teams of workers, located thousands of miles apart, collaborating using fiber optic and satellite communications and the most advanced computer technology. It is only because these information superhighways made it possible for employees to be anywhere that Oracle was able to chose New Hampshire to develop these advanced systems. Now, when these New Hampshire employees connect to other workers elsewhere, they are connecting New Hampshire to the future.

- **Rdb Brought Them Together.** At this facility they also develop a product called "Rdb" which is the reason that the center came into existence in the first place. It is a high end relational database system used in mission critical transaction systems. It is heavily used by many many branches of the government and armed forces. It is "near and dear" to the heart of everyone in the audience.

- **The History of This Center.** The center came into existence in December of 1994 as the result of an acquisition. Silicon Valley-based Oracle purchased the Rdb business from New England's Digital Equipment Corporation during a significant regional high tech recession. The group rented space from Digital until March 1997. The technology developed by this team is world-class. Over 30 patents have been issued to this group. Oracle products are used globally. People interact with them every day, when they go to the bank, rent a car, eat a pizza. The products developed in this center are that broadly used.

- **Silicon Valley meets New England.** The architecture of this building reflects in its materials, design and style the coming together of high-tech jobs and the community and history of this New England setting. One section is a brushed metal and glass, similar to the modern California facilities; the "head" of the building, with the atrium, is a local brick reflecting the New England look. The landscaping retains original stone walls from the property. The excavation was "surgical" retaining the original trees in front and surrounding the building.

- **Oracle Corporation**- Oracle Corporation is the world's largest vendor of information management software, with annual revenue of over $5.2 billion and 30,000 workers worldwide. 65% or Oracles revenue is export revenue while 90% of development is done in the U.S including here in New Hampshire. Oracle software runs on almost every computer in the world, from personal digital assistants to supercomputers, managing everything from personal information to global information networks.

- **Larry Ellison, CEO of Oracle.** Its important to note that Larry Ellison, who won't be at this event today, has been an important partner in our effort to bring educational technology to the nation's classrooms. He is on our Corporate Commission on Educational Technology that you and the President announced the day after the Vice Presidential debate and was one of the original CEOs to meet with you and the President at the Exploritorium when you launched Netday and the overall educational technology initiative. Ellison's press lately has not been positive. Oracle believes that it was at that Exploritorium meeting where the President asked Ellison to develop a $500 computer or Network Computer that would be more affordable to schools. While it was discussed in that meeting, the President never asked for its development directly. Furthermore, our educational technology philosophy has been to support more of an open architecture where schools are not locked into one companies technology but can swap in and out components as is needed. Nevertheless, the Network Computer technology is

significant and hotly debated within industry.

- **Microsoft.** Oracle views Microsoft as one of its biggest competitors and would not view mention of your visit to the CEO Summit positively.

- **Part of a week of activities.** This ceremony will be the culmination of a long week of activities which began with an employee cookout/party on Thursday; a "welcome to the city" employee, customer, and partner event with Nashua Mayor Don Davidson on Friday; and culminates with this dedication event today.

- **Jan Schwartz.** Jan Schwartz, the employee who will speak and introduce you, has been in the software business for over 15 years (11 with this group in New Hampshire) She is an accomplished Potter and is 5 months pregnant with twins. She has a group that is working to optimizethe performance of the database system.

- **Chuck Rozwat.** Chuck Rozwat is the Senior Vice President who will present a jacket and cap yo you. Until January of this year, he was the Vice President of this Development Center. This building reflects his vision and his design. In January he was promoted and given responsibility for Oracle Database Systems. This involved a relocation to California, but he has been a resident of NH for over 20 years, has 2 girls – Madeline and Alison (7 and 9). Until his move to California, he was the Chairman of the Hollis Board of Education, the local school board in his community.

ATTACHMENTS

- Remarks

Businesss Software Alliance CEO Meeting

Roosevelt Room
3:10 - 3:30, Wednesday June 4, 1997

Meeting requested by Jim Kohlenberger
Briefing prepared by Jim Kohlenberger

EVENT

You are meeting with 10 CEOs of America's leading software companies who are in town as part of the Business Software Alliance to talk about a broad range of technology issues. Specifically, they would like to personally bring to your attention a report being released to the press today (Wednesday) regarding the software industry's critical economic and employment contributions to the U.S. economy. This report will significantly reinforce your view that high technology is key to jobs and economic growth in America. They are also releasing a paper on e-commerce that largely tracks our own. You last met with BSA at this time last year.

LOGISTICS (As of this writing, subject to change)

- You will begin the meeting with brief remarks (talking points attached) and the open the meeting up for discussion.
- After your meeting with the group, the CEOs will remain in the Roosevelt room for a 3:30 meeting with Secretary Rubin and Larry Summers.

ATTENDEES

John Warnock	Chairman and CEO	Adobe Systems
Carol Bartz	Chairman and President	Autodesk, Inc.
Gregory Bentley	President and Chairman	Bentley Systems
Andy Grove	President and CEO	Intel Corp.
Jeff Papows	President	Lotus Development Corp.
Bill Gates	Chairman and CEO	Microsoft Corp.
Eric Schmidt	Chairman and CEO	Novell Inc.
Alok Mohan	President and CEO	The Santa Cruz Operation Inc.
Mitchell Kertzman	President and CEO	Sybase Inc
Gordon Eubanks	President and CEO	Symantec Corp

YOUR ROLE/CONTRIBUTION

- This is an opportunity for you to show we get it when it comes to technology -- specifically when it comes to areas like tax policy, intellectual property, telecommunications policy, electronic commerce, investment in human capital and investments in R&D. And while we have made a real effort to understand their position on encryption, we want to work closely with them on Internet content controls and educational technology. Talking points are attached.

Securities Litigation Reform

QUESTION: Last year in California, in the course of the debate over Prop 211, President Clinton suggested to some of us that federal preemption of state securities laws for private securities fraud class actions might be a good idea. A bipartisan group of Representatives, including Reps Eschoo and Fazio, introduced on May 21 a bill to do just that -- to set uniform national standards for class action securities litigation. Will the President support HR 1689?

ANSWER: As you all know, Prop 211 was overwhelmingly defeated (75%-25%). The President was pleased to support your efforts to bring about that result.

In the last several months, there have been a number of studies -- including one by the SEC that the President requested -- attempting to determine the impact of the Securities Litigation Reform Act in the two areas where it was supposed to make a difference: reducing the extent and cost of frivolous litigation and increasing the information made available to investors, particularly forward-looking statements. The reports seem to be consistent on two points: that there has an increase in state court securities law litigation while federal cases have declined slightly, and that there has been little or no increase in the availability of forward looking information. Where the reports differ is whether there is sufficient information to justify federal preemption of state securities laws (and, in the case of HR 1689, common law fraud) to ensure the goals of the reform act are met and exactly why there has not been an increase in information.

We have an interagency team reviewing both the post-reform act cases and literature, and the various proposals, including HR 1689, that respond to concerns -- about both litigation and statutes -- that have arisen since its passage. We think it is important that any preemptive statute rest on a firm basis in law and fact, and that if national uniformity is appropriate, it is fair, consistent and designed to result in the increased information flow so important to a fair and efficient market.

<u>Background</u>

Representatives of the high tech community firmly believe that last year, during a campaign stop in California, President Clinton not only publicly opposed Prop 211, but also suggested to the community that federal preemption might be a good idea. Both the President and Leon Panetta were quoted as saying that a national market shouldn't be subject to a patchwork of laws. On the other hand, this was very much in the context of Prop 211. Since that time, the President has not taken a position on preemption legislation.

HR 1689 would make federal law and federal court the exclusive remedy and venue for suits alleging "untrue statement or omission of a material fact" or use of "any manipulative or deceptive device" in connection with the purchase or sale of a national-market security, if the action was brought on behalf of more than 25 people or in a representative capacity. Sponsors claim enforcement actions by state securities regulators would not be affected (although the legislation is not crystal clear on this). On the other hand, state common law fraud actions would

be preempted. State securities law regulators will be opposed; Chairman Levitt has strongly urged no action at this time.

As of June 3, the following Representatives had signed on to HR 1689: White (sponsor), Eshoo, Barton, Brown (OH), Bilbray, Dooley, Campbell, Fazio, Coburn, Farr, Cox, Frank, Dunn, Harman, Klug, Kennedy (MA), Nethercutt, Lofgren, Paxon, Roemer, Pryce, Tauscher, Tauzin, Towns, Deutsch. More are expected this week as they are visited by technology CEOs. Although Mr. Oxley, who heads the Commerce Committee subcommittee that would have to consider the legislation, has said it's not going anywhere fast, it is entirely possible that he is waiting for the high tech community to convince the Administration to support preemption before he takes the risk of doing so himself. NEC staff met on Monday with representatives of Intel and with Bill Archey. They requested the Administration's support; we responded as outlined above.

Ellen Seidman, NEC

Background: Administration Encryption Policy

The Administration continues to seek a balanced approach to its encryption policy: one that promotes strong security for widespread electronic information and communications, while protecting the public safety.

We are promoting the development of Key Management Infrastructure (KMI) technologies and institutions which provide trusted security services, including privacy, authentication, and key recovery.

Key recovery is a technique developed by industry in response to market demand - businesses want the capability to retrieve their encrypted data in the event of loss or theft of decryption keys.

The Administration has embraced key recovery since it also provides a tool for law enforcement to understand and use encrypted data in investigations and prosecutions, under strict lawful authority.

Importantly, the Administration's approach is market-driven: users have the right to chose any encryption within the US.

To facilitate development of a security infrastructure that includes key recovery (for those users that require it), the Administration is allowing the export of 56-bit non-key-recovery encryption products for two years, in return for manufacturers' commitments to develop key recovery products. Products that are already key recoverable are readily approved for export, without limits on the encryption used. The Administration also supports export approval of the strongest encryption products, without key recovery, when designed to support financial services.

In response to these policies, over 15 companies, including software companies, have received approval of their key recovery business plans and can now export 56-bit products.

To develop the market and technology for key recovery, the Administration recently announced a series of Key Recovery Pilot projects where the government plans to purchase key recovery products. Many software vendors have indicated their intent to partner with the USG on these pilots.

We are also in discussion with Congressional members on enabling legislation to promote the development of security infrastructure services in a manner consistent with protecting the public safety.

BUSINESS SOFTWARE ALLIANCE

The BSA has historically been against export controls of software with encryption features, and continues to lobby the Hill to remove encryption export controls outright.

The software industry is concerned that:

(1) Foreign companies may take over the international marketplace because of US export controls.
(2) Key recovery products are not economically feasible and are less secure than non-key recovery products.
(3) US vendors may lose substantial market share while the Administration slowly promotes key recovery over the next two years.

RESPONSE TO SOFTWARE INDUSTRY CONCERNS

The Administration supports US industry's maintaining its global market lead in software products. We also take seriously our responsibility to assure the public safety. Our policy serves both of these objectives.

Based on industry input, we believe demand for key recovery features is rapidly increasing. Users of strong encryption simply cannot risk losing access to their proprietary or sensitive data in the event of loss of decryption keys. Over 60 companies have joined a Key Recovery Alliance to promote such products.

We agree that a harmonized international approach to encrytpion is needed. That's why we have David Aaron working with countries around the world -- to assure a level playing field for US products.

We welcome a continued dialogue with the US software industry on exploring other techniques and methods for providing strong encryption to users while also protecting law enforcement interests.

We encourage the software industry's assistance in promoting the development of other robust security infrastructure services, e.g., authentication, to facilitate the development of trusted electronic commerce.

COMPANY/EXECUTIVE OFFICER BIOGRAPHIES

ADOBE SYSTEMS INCORPORATED

Adobe Systems Incorporated develops software applications that enable users to exchange visually rich information and provides cross-platform authoring tools. A long-time leader in the field of desktop publishing, Adobe is now bringing the same high-quality communications capabilities to the World Wide Web as it did to the desktop computer.

Adobe was founded in 1982 by Dr. John Warnock and Dr. Charles Geschke and is headquartered in Mountain View, California, with several offices worldwide and more than 2,000 employees. Additional information about Adobe can be found at their website: "www.adobe.com."

Dr. John E. Warnock, Chairman of the Board, CEO and Co-Founder

Dr. John Warnock is Chairman of the Board, Chief Executive Officer, and Co-Founder of Adobe Systems Incorporated. For three decades, Warnock has been a respected innovator in the field of computer software. He holds three patents, has contributed many articles to technical and industry publications, and is a frequent speaker on industry issues. He is the recipient of numerous awards for technical and managerial achievement.

Before founding Adobe with Dr. Charles Geschke in 1982, he worked as a principal scientist at Xerox Palo Alto Research Center, and held positions at Evans & Sutherland Computer Corporation, Computer Sciences Corporation, the University of Utah, and IBM. He holds a bachelor's degree in mathematics philosophy, a master's degree in mathematics, and a doctorate in electrical engineering (computer science), all from the University of Utah. He is a member of the National Academy of Engineering and sits on the Board of Directors of Netscape Communications Corporation, Redbrick Systems, and Evans & Sutherland. He is Chairman of the Board of the Tech Museum of Innovation and serves on the Entrepreneurial Board Advisory Committee of the American Film Institute.

AUTODESK, INC.

Autodesk develops, markets, sells and supports a family of design-automation and professional multimedia software and component technologies for use on personal computers and work stations. Since its founding in 1982, Autodesk has been a global company and now sells its products in more than 127 countries and in 19 languages.

A company committed to technical innovation and quality, Autodesk is the world's leading supplier of computer-aided design-automation, often used by architects to design homes and buildings, and desktop multimedia software. Currently, three million customers use Autodesk's software products for tasks ranging from mechanical design and facilities management to digital terrain modeling and videography. Additional information about Autodesk can be found at their website: "www.autodesk.com."

Carol A. Bartz, Chairman of the Board and CEO

In 1992, Carol Bartz became Chairman of the Board and CEO of Autodesk, Inc. Under Bartz's leadership, the company has diversified its product line and increased its revenues from $285 million to $455 million. Bartz previously held positions at Sun Microsystems, most recently serving as Vice President of Worldwide Field Operations and as an Executive Officer. In this capacity, she managed the organizations responsible for Sun's worldwide revenues, which grew from $2.6 billion to $3.6 billion in FY 1992.

Bartz joined Sun as a Customer Marketing Manager in 1983, when the company's revenues were $9 million. She soon became Vice President of Marketing, playing a key role in establishing Sun as an open systems vendor. Bartz became President of Sun Federal in 1987. Under her leadership, revenues grew from $21 million to $124 million in two years. Bartz then served as Vice President of Customer Service until taking responsibility for worldwide field operations in 1990. She is a member of President Clinton's Export Council.

BENTLEY SYSTEMS, INCORPORATED

Bentley Systems' goal is to maximize the productivity and collaboration of large-scale engineering projects. Bentley offers engineering software products and services that uniquely scale to the entire engineering process and is a worldwide leader in engineering software products and user services. The company now serves over 250,000 professionals in building/plant engineering, GeoEngineering and mechanical engineering.

Founded in 1984, Bentley currently employs over 700 workers and has expanded its corporate structure, distribution channels, product line, and service programs to become one of the fastest growing software development companies worldwide. In the just-released 1996 Softletter 100 listing, Bentley is among the top four companies in growth rate in the overall PC software market. Additional information about Bentley can be found at their website: "www.bentley.com."

Gregory S. Bentley, President and Chairman

Gregory S. Bentley is President and Chairman of Bentley Systems, Inc. In 1991, when he joined his four brothers at Bentley Systems, Inc., it was strictly a development unit with 35 employees. Greg oversaw the creation of marketing, sales channels, and support functions as Bentley expanded to independent worldwide operations. Under Greg's leadership as President and Chairman since 1995, Bentley has grown to a $100 million-plus professional engineering software company.

Prior to joining Bentley Systems, Inc., Greg was the founder, CEO and Chief Product Architect of the leading provider of derivatives trading software products to financial markets, now named SunGard Capital Markets, Inc. Greg remains a Director of its parent, SunGard Data Systems, Inc. (among the country's top 25 information services firms in market value). Greg earned an MBA and economics degrees from The Wharton School.

INTEL CORPORATION

In 1971, Intel Corporation introduced the world's first microprocessor and sparked a computer revolution that has changed the world. Today, Intel supplies the computing industry with chips, boards, systems and software. Intel's products are used by industry members as "building blocks" to create advanced computing systems for PC users. Intel's mission is to be the preeminent building block supplier to the new computing industry worldwide.

Employing more than 48,500 workers, Intel is headquartered in Santa Clara, California, with office locations in over 50 countries worldwide. Additional information about Intel can be found at their website: "www.intel.com."

Dr. Andrew S. Grove, Chairman and CEO

Dr. Andrew S. Grove is Chairman and Chief Executive of Officer of Intel Corporation. Grove participated in the founding of Intel Corporation in July 1968, and was named its President in 1979, and its Chief Executive Officer in 1987. Grove, born in Budapest, Hungary, graduated from the City College of New York with a Bachelor of Chemical Engineering degree and received his Ph.D. from the University of California, Berkeley in 1963. Upon graduation, he joined the Research and Development Laboratory of Fairchild Semiconductor.

Grove has written over 40 technical papers and holds several patents on semiconductor devices and technology. His first book, "Physics and Technology of Semiconductor Devices," has been used at many leading universities in the United States. His book, "High Output Management," has been translated into eleven languages. An author of articles in Fortune, The Wall Street Journal, and the New York Times, he has also written a weekly column on management which was carried by several newspapers. In addition, he wrote a column on management for Working Woman magazine. His latest book is "Only the Paranoid Survive: How to Exploit the Crisis Points that Challenge Every Company and Career."

LOTUS DEVELOPMENT, INC.

Lotus Development produces award-winning desktop and communications software products for the OS/2, DOS, Windows, Macintosh, and UNIX environments. Lotus products enable individuals and organizations to communicate with colleagues, collaborate in teams, and coordinate business processes within and beyond their organizational boundaries to achieve improved business results. More than 8,000 companies and 4.5 million individuals use Lotus Notes products to improve key business processes such as customer service, account management, and product development.

Lotus Development, founded in 1982 and based in Cambridge, Massachusetts is a wholly-owned subsidiary of IBM Corporation. The company markets its products in more than 80 countries and generates nearly half its revenue outside the United States. Additional information about Lotus can be found at their website: "www.lotus.com."

Jeff Papows, President

Jeff Papows is President of Lotus Development Corporation, a subsidiary of IBM Corporation. He is responsible for Lotus' financial and operational performance and for execution of overall strategy. Prior to his appointment as President in October, 1996, Papows was Chief Operating Officer and occupied the Office of the President with CEO Michael Zisman. Previously, he was a Senior Vice President of Lotus' Communications Products Business Group, sharing with Zisman responsibility for Lotus Notes, cc:Mail, Soft-Switch and Organizer products.

Papows joined Lotus in 1993 from Cognos, where he was President and Chief Operating Officer for more than three years. Previously, he held senior management level positions at Cullinet Software, Software International and ParaResearch. Papows earned his bachelor's degree in biology and secondary education from Norwich University, a master's degree in human resource management from Pepperdine University, and a Ph.D. from CCU.

MICROSOFT CORPORATION

Microsoft is the world's largest personal computer software company. An innovative leader in desktop applications, operating systems, on-line services and multi-media products, Microsoft invested $860 million dollars in research and development of new products and services in 1995.

Founded in 1975, Microsoft's headquarters are in Redmond, Washington and it has 48 worldwide subsidiaries. Microsoft products are available in more than 30 languages and sold in over 80 countries. Additional information about Microsoft can be found at their website: "www.microsoft.com."

William Gates, Chairman and CEO

William Gates is Chairman and CEO of Microsoft Corporation, a leading provider of software for personal computers worldwide. Gates began his career in personal computer software when he started programming at age 13. In 1974, while an undergraduate at Harvard University, he developed BASIC for the first microcomputer, the MITS Altair. Led by the belief that the personal computer would ultimately be a valuable tool on every office desktop and in every home, Gates formed Microsoft with Paul Allen in 1975 to develop software for personal computers.

Gates is actively involved in all significant operating and strategic decisions at Microsoft and plays an important role in the technical development and management of the company. With Gates' leadership, Microsoft's mission is to continually advance and improve software technology to make it easier and more enjoyable for people to use software.

NOVELL, INC.

Incorporated in 1983, Novell, Inc. is the one of the largest networking software companies in the world. Novell enables the connected enterprise, bringing structure to the Net to make it a serious business tool. Novell empowers customers to "Rock the Net," to take charge of the changes brought on by the proliferation of the Internet. Together with Novell, customers are creating a world of computing that connects people to each other and the information they need, enabling them to act on it anytime, anyplace.

Novell also helped to create the local-area network (LAN) market by delivering the first server-based software products to connect personal computers. Novell built on this success with products that tie together LANs into wide-area networks (WANs) and integrate the diverse information resources of the entire enterprise.

Toward these goals, Novell partners with computing and telecommunications leaders worldwide to integrate its products into complete network solutions. As a world leader, Novell employs more than 5,800 people at offices in over 40 countries. Additional information about Novell can be found at their website: "www.novell.com."

Dr. Eric Schmidt, CEO and Chairman of the Board of Directors

On March 18, 1997, Dr. Eric Schmidt was named Chief Executive Officer and Chairman of the Board of Directors of Novell, Inc. Schmidt comes to Novell from Sun Microsystems, Inc., where he was Chief Technology Officer and Corporate Executive Officer. Schmidt held a range of progressively more responsible executive positions at Sun, where he earned international recognition as an Internet pioneer. He was also instrumental in the widespread acceptance of Java, Sun's platform-independent programming language.

Prior to joining Sun, Schmidt was a member of the research staff at the Computer Science Lab at Xerox Palo Alto Research Center (PARC), where he developed release tools for the Cedar programming environment project. He also held positions at Bell Laboratories and Zilog. Schmidt has a B.S. in electrical engineering from Princeton University and an M.S. in electrical engineering and Ph.D. in computer science from the University of California, Berkeley.

THE SANTA CRUZ OPERATION, INC.

The Santa Cruz Operation, Inc. was founded in 1979 and is currently the world's leading supplier of UNIX server system software, with an installed base of more than 2.1 million licenses, and a leading supplier of client-integration software that integrates Windows PCS and other clients with UNIX servers from all major vendors. SCO UNIX Servers run the critical, day-to-day operations of branch organizations in retail, finance, telecom and government, as well as corporate departments and small to medium-sized businesses of almost every kind.

SCO works with the industry's leading technology providers, independent software vendors, and hardware manufacturers to create best-of-breed products that best serve the requirements of targeted customers. To reach new markets and deliver more innovative products to our customers, SCO will drive The Internet Way of Computing™ model forward with these providers to improve the efficiency of business-critical environments. SCO is a publicly held, global corporation with offices and distributors in more than 80 countries. Additional information about SCO can be found at their website: "www.sco.com."

Alok Mohan, President and CEO

Alok Mohan is The Santa Cruz Operation, Inc.'s President and Chief Executive Officer, and a member of the Board of Directors. His responsibilities include all the day-to-day operations of SCO, including the interaction of all sales and marketing efforts worldwide, as well as implementing the strategic direction of the company. Previously at SCO, Mohan was President and Chief Operating Officer, and prior to that, Senior Vice President and Chief Financial Officer. As CFO, he was responsible for finance and business planning as well as marketing, manufacturing, information systems, and human resources.

Mohan has extensive experience in strategic financial planning. Prior to joining SCO, he served as Vice President of Strategic Marketing and Controller of NCR, an AT&T company, and was Vice President and General Manager of the Workstation Products Division of NCR.

SYBASE, INC.

Sybase, Inc. is a worldwide leader in client/server software. Sybase's mission is to provide its customers with a software platform and services that enable them to create, integrate and communicate their information assets. The company's two major product units -- the Enterprise Business Group and the Powersoft Business Group -- are focused on the core market segments of on-line transaction processing, data warehousing and mass deployment. Sybase's software products -- databases, middleware and tools -- provide customers with enterprise- to-desktop solutions.

Headquartered in Emeryville, California, Sybase is one of the largest independent software companies in the world, employing over 4,500 employees in 86 offices globally. Additional information about Sybase can be found at their website: "www.sybase.com."

Mitchell Kertzman, President and CEO

Mitchell E. Kertzman is President and CEO of Sybase, Inc. Kertzman was founder and Chief Executive Officer of Powersoft, a leading vendor of client/server application development tools, which merged with Sybase in February of 1995.

A former programmer, Kertzman in 1974 founded Computer Solutions, Inc., a software company specializing in MRP applications. In the late 1980s, Kertzman initiated a project to produce development tools for client/server applications. In 1991, the company released the flagship client/server application development tool, Powerbuilder. Renamed Powersoft Corporation, the company in 1993 executed one of the most successful IPOs of that year. Two years later, Powersoft merged with Sybase, Inc.

Kertzman is currently a Director of three publicly traded companies: Sybase, Inc., Shiva Corporation, and c/net. He is also a Director of Interconnect Systems, Inc., a privately held company. In 1993, he was a recipient of *Inc. Magazine* and Ernst & Young's New England Entrepreneur of the Year award. He also received the 1993 Distinguished Achievement Award of the Technology Unit of New England B'nai B'rith. Kertzman is the founder and Chairman of The Massachusetts Institute for a New Commonwealth (MassINC), a think tank focused on issues related to the standard of living and quality of life of America's middle class.

SYMANTEC CORPORATION

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Symantec currently employs over 2,000 people worldwide and is headquartered in Cupertino, California, with offices located in more than 30 major cities throughout the United States and internationally. Additional information about Symantec can be found at their website: "www.symantec.com."

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Gordon E. Eubanks, Jr. is President, CEO, and a member of the Board of Directors of Symantec Corporation. Previously, Eubanks was Vice President of Digital Research Inc.'s commercial systems division, where he was responsible for the development and marketing of all system software products. He left Digital Research in September 1983.

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COMPANY/EXECUTIVE OFFICER BIOGRAPHIES

ADOBE SYSTEMS INCORPORATED

Adobe Systems Incorporated develops software applications that enable users to exchange visually rich information and provides cross-platform authoring tools. A long-time leader in the field of desktop publishing, Adobe is now bringing the same high-quality communications capabilities to the World Wide Web as it did to the desktop computer.

Adobe was founded in 1982 by Dr. John Warnock and Dr. Charles Geschke and is headquartered in Mountain View, California, with several offices worldwide and more than 2,000 employees. Additional information about Adobe can be found at their website: "www.adobe.com."

Dr. John E. Warnock, Chairman of the Board, CEO and Co-Founder

Dr. John Warnock is Chairman of the Board, Chief Executive Officer, and Co-Founder of Adobe Systems Incorporated. For three decades, Warnock has been a respected innovator in the field of computer software. He holds three patents, has contributed many articles to technical and industry publications, and is a frequent speaker on industry issues. He is the recipient of numerous awards for technical and managerial achievement.

Before founding Adobe with Dr. Charles Geschke in 1982, he worked as a principal scientist at Xerox Palo Alto Research Center, and held positions at Evans & Sutherland Computer Corporation, Computer Sciences Corporation, the University of Utah, and IBM. He holds a bachelor's degree in mathematics philosophy, a master's degree in mathematics, and a doctorate in electrical engineering (computer science), all from the University of Utah. He is a member of the National Academy of Engineering and sits on the Board of Directors of Netscape Communications Corporation, Redbrick Systems, and Evans & Sutherland. He is Chairman of the Board of the Tech Museum of Innovation and serves on the Entrepreneurial Board Advisory Committee of the American Film Institute.

AUTODESK, INC.

Autodesk develops, markets, sells and supports a family of design-automation and professional multimedia software and component technologies for use on personal computers and work stations. Since its founding in 1982, Autodesk has been a global company and now sells its products in more than 127 countries and in 19 languages.

A company committed to technical innovation and quality, Autodesk is the world's leading supplier of computer-aided design-automation, often used by architects to design homes and buildings, and desktop multimedia software. Currently, three million customers use Autodesk's software products for tasks ranging from mechanical design and facilities management to digital terrain modeling and videography. Additional information about Autodesk can be found at their website: "www.autodesk.com."

Carol A. Bartz, Chairman of the Board and CEO

In 1992, Carol Bartz became Chairman of the Board and CEO of Autodesk, Inc. Under Bartz's leadership, the company has diversified its product line and increased its revenues from $285 million to $455 million. Bartz previously held positions at Sun Microsystems, most recently serving as Vice President of Worldwide Field Operations and as an Executive Officer. In this capacity, she managed the organizations responsible for Sun's worldwide revenues, which grew from $2.6 billion to $3.6 billion in FY 1992.

Bartz joined Sun as a Customer Marketing Manager in 1983, when the company's revenues were $9 million. She soon became Vice President of Marketing, playing a key role in establishing Sun as an open systems vendor. Bartz became President of Sun Federal in 1987. Under her leadership, revenues grew from $21 million to $124 million in two years. Bartz then served as Vice President of Customer Service until taking responsibility for worldwide field operations in 1990. She is a member of President Clinton's Export Council.

BENTLEY SYSTEMS, INCORPORATED

Bentley Systems' goal is to maximize the productivity and collaboration of large-scale engineering projects. Bentley offers engineering software products and services that uniquely scale to the entire engineering process and is a worldwide leader in engineering software products and user services. The company now serves over 250,000 professionals in building/plant engineering, GeoEngineering and mechanical engineering.

Founded in 1984, Bentley currently employs over 700 workers and has expanded its corporate structure, distribution channels, product line, and service programs to become one of the fastest growing software development companies worldwide. In the just-released 1996 Softletter 100 listing, Bentley is among the top four companies in growth rate in the overall PC software market. Additional information about Bentley can be found at their website: "www.bentley.com."

Gregory S. Bentley, President and Chairman

Gregory S. Bentley is President and Chairman of Bentley Systems, Inc. In 1991, when he joined his four brothers at Bentley Systems, Inc., it was strictly a development unit with 35 employees. Greg oversaw the creation of marketing, sales channels, and support functions as Bentley expanded to independent worldwide operations. Under Greg's leadership as President and Chairman since 1995, Bentley has grown to a $100 million-plus professional engineering software company.

Prior to joining Bentley Systems, Inc., Greg was the founder, CEO and Chief Product Architect of the leading provider of derivatives trading software products to financial markets, now named SunGard Capital Markets, Inc. Greg remains a Director of its parent, SunGard Data Systems, Inc. (among the country's top 25 information services firms in market value). Greg earned an MBA and economics degrees from The Wharton School.

INTEL CORPORATION

In 1971, Intel Corporation introduced the world's first microprocessor and sparked a computer revolution that has changed the world. Today, Intel supplies the computing industry with chips, boards, systems and software. Intel's products are used by industry members as "building blocks" to create advanced computing systems for PC users. Intel's mission is to be the preeminent building block supplier to the new computing industry worldwide.

Employing more than 48,500 workers, Intel is headquartered in Santa Clara, California, with office locations in over 50 countries worldwide. Additional information about Intel can be found at their website: "www.intel.com."

Dr. Andrew S. Grove, Chairman and CEO

Dr. Andrew S. Grove is Chairman and Chief Executive of Officer of Intel Corporation. Grove participated in the founding of Intel Corporation in July 1968, and was named its President in 1979, and its Chief Executive Officer in 1987. Grove, born in Budapest, Hungary, graduated from the City College of New York with a Bachelor of Chemical Engineering degree and received his Ph.D. from the University of California, Berkeley in 1963. Upon graduation, he joined the Research and Development Laboratory of Fairchild Semiconductor.

Grove has written over 40 technical papers and holds several patents on semiconductor devices and technology. His first book, "Physics and Technology of Semiconductor Devices," has been used at many leading universities in the United States. His book, "High Output Management," has been translated into eleven languages. An author of articles in Fortune, The Wall Street Journal, and the New York Times, he has also written a weekly column on management which was carried by several newspapers. In addition, he wrote a column on management for Working Woman magazine. His latest book is "Only the Paranoid Survive: How to Exploit the Crisis Points that Challenge Every Company and Career."

LOTUS DEVELOPMENT, INC.

Lotus Development produces award-winning desktop and communications software products for the OS/2, DOS, Windows, Macintosh, and UNIX environments. Lotus products enable individuals and organizations to communicate with colleagues, collaborate in teams, and coordinate business processes within and beyond their organizational boundaries to achieve improved business results. More than 8,000 companies and 4.5 million individuals use Lotus Notes products to improve key business processes such as customer service, account management, and product development.

Lotus Development, founded in 1982 and based in Cambridge, Massachusetts is a wholly-owned subsidiary of IBM Corporation. The company markets its products in more than 80 countries and generates nearly half its revenue outside the United States. Additional information about Lotus can be found at their website: "www.lotus.com."

Jeff Papows, President

Jeff Papows is President of Lotus Development Corporation, a subsidiary of IBM Corporation. He is responsible for Lotus' financial and operational performance and for execution of overall strategy. Prior to his appointment as President in October, 1996, Papows was Chief Operating Officer and occupied the Office of the President with CEO Michael Zisman. Previously, he was a Senior Vice President of Lotus' Communications Products Business Group, sharing with Zisman responsibility for Lotus Notes, cc:Mail, Soft-Switch and Organizer products.

Papows joined Lotus in 1993 from Cognos, where he was President and Chief Operating Officer for more than three years. Previously, he held senior management level positions at Cullinet Software, Software International and ParaResearch. Papows earned his bachelor's degree in biology and secondary education from Norwich University, a master's degree in human resource management from Pepperdine University, and a Ph.D. from CCU.

MICROSOFT CORPORATION

Microsoft is the world's largest personal computer software company. An innovative leader in desktop applications, operating systems, on-line services and multi-media products, Microsoft invested $860 million dollars in research and development of new products and services in 1995.

Founded in 1975, Microsoft's headquarters are in Redmond, Washington and it has 48 worldwide subsidiaries. Microsoft products are available in more than 30 languages and sold in over 80 countries. Additional information about Microsoft can be found at their website: "www.microsoft.com."

William Gates, Chairman and CEO

William Gates is Chairman and CEO of Microsoft Corporation, a leading provider of software for personal computers worldwide. Gates began his career in personal computer software when he started programming at age 13. In 1974, while an undergraduate at Harvard University, he developed BASIC for the first microcomputer, the MITS Altair. Led by the belief that the personal computer would ultimately be a valuable tool on every office desktop and in every home, Gates formed Microsoft with Paul Allen in 1975 to develop software for personal computers.

Gates is actively involved in all significant operating and strategic decisions at Microsoft and plays an important role in the technical development and management of the company. With Gates' leadership, Microsoft's mission is to continually advance and improve software technology to make it easier and more enjoyable for people to use software.

NOVELL, INC.

Incorporated in 1983, Novell, Inc. is the one of the largest networking software companies in the world. Novell enables the connected enterprise, bringing structure to the Net to make it a serious business tool. Novell empowers customers to "Rock the Net," to take charge of the changes brought on by the proliferation of the Internet. Together with Novell, customers are creating a world of computing that connects people to each other and the information they need, enabling them to act on it anytime, anyplace.

Novell also helped to create the local-area network (LAN) market by delivering the first server-based software products to connect personal computers. Novell built on this success with products that tie together LANs into wide-area networks (WANs) and integrate the diverse information resources of the entire enterprise.

Toward these goals, Novell partners with computing and telecommunications leaders worldwide to integrate its products into complete network solutions. As a world leader, Novell employs more than 5,800 people at offices in over 40 countries. Additional information about Novell can be found at their website: "www.novell.com."

Dr. Eric Schmidt, CEO and Chairman of the Board of Directors

On March 18, 1997, Dr. Eric Schmidt was named Chief Executive Officer and Chairman of the Board of Directors of Novell, Inc. Schmidt comes to Novell from Sun Microsystems, Inc., where he was Chief Technology Officer and Corporate Executive Officer. Schmidt held a range of progressively more responsible executive positions at Sun, where he earned international recognition as an Internet pioneer. He was also instrumental in the widespread acceptance of Java, Sun's platform-independent programming language.

Prior to joining Sun, Schmidt was a member of the research staff at the Computer Science Lab at Xerox Palo Alto Research Center (PARC), where he developed release tools for the Cedar programming environment project. He also held positions at Bell Laboratories and Zilog. Schmidt has a B.S. in electrical engineering from Princeton University and an M.S. in electrical engineering and Ph.D. in computer science from the University of California, Berkeley.

THE SANTA CRUZ OPERATION, INC.

The Santa Cruz Operation, Inc. was founded in 1979 and is currently the world's leading supplier of UNIX server system software, with an installed base of more than 2.1 million licenses, and a leading supplier of client-integration software that integrates Windows PCS and other clients with UNIX servers from all major vendors. SCO UNIX Servers run the critical, day-to-day operations of branch organizations in retail, finance, telecom and government, as well as corporate departments and small to medium-sized businesses of almost every kind.

SCO works with the industry's leading technology providers, independent software vendors, and hardware manufacturers to create best-of-breed products that best serve the requirements of targeted customers. To reach new markets and deliver more innovative products to our customers, SCO will drive The Internet Way of Computing™ model forward with these providers to improve the efficiency of business-critical environments. SCO is a publicly held, global corporation with offices and distributors in more than 80 countries. Additional information about SCO can be found at their website: "www.sco.com."

Alok Mohan, President and CEO

Alok Mohan is The Santa Cruz Operation, Inc.'s President and Chief Executive Officer, and a member of the Board of Directors. His responsibilities include all the day-to-day operations of SCO, including the interaction of all sales and marketing efforts worldwide, as well as implementing the strategic direction of the company. Previously at SCO, Mohan was President and Chief Operating Officer, and prior to that, Senior Vice President and Chief Financial Officer. As CFO, he was responsible for finance and business planning as well as marketing, manufacturing, information systems, and human resources.

Mohan has extensive experience in strategic financial planning. Prior to joining SCO, he served as Vice President of Strategic Marketing and Controller of NCR, an AT&T company, and was Vice President and General Manager of the Workstation Products Division of NCR.

SYBASE, INC.

Sybase, Inc. is a worldwide leader in client/server software. Sybase's mission is to provide its customers with a software platform and services that enable them to create, integrate and communicate their information assets. The company's two major product units -- the Enterprise Business Group and the Powersoft Business Group -- are focused on the core market segments of on-line transaction processing, data warehousing and mass deployment. Sybase's software products -- databases, middleware and tools -- provide customers with enterprise- to-desktop solutions.

Headquartered in Emeryville, California, Sybase is one of the largest independent software companies in the world, employing over 4,500 employees in 86 offices globally. Additional information about Sybase can be found at their website: "www.sybase.com."

Mitchell Kertzman, President and CEO

Mitchell E. Kertzman is President and CEO of Sybase, Inc. Kertzman was founder and Chief Executive Officer of Powersoft, a leading vendor of client/server application development tools, which merged with Sybase in February of 1995.

A former programmer, Kertzman in 1974 founded Computer Solutions, Inc., a software company specializing in MRP applications. In the late 1980s, Kertzman initiated a project to produce development tools for client/server applications. In 1991, the company released the flagship client/server application development tool, Powerbuilder. Renamed Powersoft Corporation, the company in 1993 executed one of the most successful IPOs of that year. Two years later, Powersoft merged with Sybase, Inc.

Kertzman is currently a Director of three publicly traded companies: Sybase, Inc., Shiva Corporation, and c/net. He is also a Director of Interconnect Systems, Inc., a privately held company. In 1993, he was a recipient of *Inc. Magazine* and Ernst & Young's New England Entrepreneur of the Year award. He also received the 1993 Distinguished Achievement Award of the Technology Unit of New England B'nai B'rith. Kertzman is the founder and Chairman of The Massachusetts Institute for a New Commonwealth (MassINC), a think tank focused on issues related to the standard of living and quality of life of America's middle class.

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Computer CEO Meeting

Roosevelt Room
10:00 - 10:25 am, Friday June 6, 1997

Meeting requested by Jim Kohlenberger/ Don Gips
Briefing prepared by Jim Kohlenberger/Tom Kalil

EVENT

You are meeting with the CEO members of the Computers System Policy Project (CSPP) an affiliation of the chief executive officers of major American computer companies. CSPP formed in 1989 to develop and advocate public policy positions on current trade and technology issues. Together the companies employed more than 815,000 people and generated more than $216 billion of revenue in 1994.

LOGISTICS (As of this writing, subject to change)

- You will have a ten minute briefing before the event with Don Gips, Jim Kohlenberger and Tom Kalil.
- After asking everyone to introduce themselves, you will speak briefly and open it up for questions.

YOUR ROLE/CONTRIBUTION

- This is an opportunity for you to highlight the good things that we have done for their industry and to encourage them to get involved with the Corporate Commission on Educational Technology where we need hardware support.

PROGRAM NOTES

The CSPP meeting should be a positive meeting. There are three issues that they want to raise (export controls, electronic commerce, and encryption controls), and one issue that you should raise (educational technology). Background and talking points for these four issues are attached.

- **Computer export controls:** CSPP is very supportive of the Administration's decision to liberalize export controls on computers in 1993 and 1995. They want an assurance from us that we are willing to fight Congressional efforts to "roll back" these decisions, which you can give them. They also want to let you know that they will begin bumping up against the current limits in 1998. We have a process underway to determine whether further changes are required.
- **Electronic commerce:** Global electronic commerce will be a major item on their agenda in the coming years. Their positions are consistent with the Administration's agenda.

They primarily want to know who they should be working with in the Administration. You should tell them that you plan to lead our electronic commerce initiative and that we are planning on announcing our e-commerce paper in early July.

- **Encryption**: They have made a good effort to work with the Administration on encryption policy. They would like to begin meeting again at a senior level in mid-1998, given that the current regulations are due to expire at the beginning. You should also thank them for their willingness to work with the Administration.

- **Educational technology**: You should encourage them to seriously consider Sumner Redstone's request to have them get involved in the Corporate Commission on Educational Technology's plan to get an additional 100,000 multimedia computers in to our schools.

ATTACHMENTS

- **Policy papers**
- **Attendee Bios**

Computer export controls

Background: The Administration has supported 2 major liberalizations of export controls on computers in 1993 and 1995. Together, these decisions freed up more than $30 billion in computer exports, and were warmly received by the industry. Some on the Hill (e.g. Duncan Hunter) would like to roll-back these decisions, but the Administration intends to stick with its policies. Potential export control violations to Russia by IBM and SGI are the subject of ongoing criminal investigations by Commerce and Justice, and high-level diplomacy. [As you know, we are negotiating with the Russians to return the computers in question.] By 1998, they anticipate bumping up against the limits established in 1995.

Talking points:

- I want to let you know that the Administration intends to stick with its decision to liberalize export controls on high-performance computers in spite of some Congressional opposition.

- We will be taking some steps to strengthen the implementation of the 1993 and 1995 decisions by publishing more information on "problem end users" in countries that are of concern from a proliferation stand-point.

- I don't want to get into great detail on the situation with respect to Russia - except to say that this is an issue we take very seriously, and it is the subject of some high-level diplomacy.

- I know that your industry continues to make rapid technological progress on the "Moore's Law" curve -- and that 80 percent of your products have been on the market for less than 2 years.

- We have commissioned an independent study to determine whether any changes in our computer export control policy are warranted. This study will be finished in December, and will serve as the basis for an Administration review of our policy.

- We look forward to continuing the dialogue on this important issue.

Electronic commerce

Background: The Computer Systems Policy Project intends to make electronic commerce a major focus of their work. This will be headed up by Lou Gerstner (IBM), and Gil Amelio (Apple). Their positions on electronic commerce are consistent with the Administration's white paper, and they would like to be involved in any event to release the paper.

The CEOs are likely to focus on taxation of electronic commerce, global telecom deregulation (e.g. WTO implementation), electronic contracts, and encryption. They also want to know who they should be dealing with to follow-up on these issues.

Talking points

- I understand that the CSPP agenda on global electronic commerce is very consistent with where the Administration is on this set of issues.

- I plan to lead our electronic commerce initiative. We are planning on announcing our e-commerce initiative in early July.

- As you know, we have identified a number of areas where we think it is important for the industry to play a leadership role in making the electronic marketplace work.

  - For example, on the issue of **content**, we think it is very important that industry deliver the tools that will give parents more control over what their children have access to.

  - On **privacy**, users have to have some mechanism for maintaining control over their personal information.

- If the industry wants to avoid heavy-handed regulation at the state, national and international level -- I think it is very important that the industry demonstrate that self-regulation in these and other areas can be effective.

- I know that **telecommunications deregulation** is one of the issues you are considering working on. I hope that you will pay particularly close attention to the issue of broadband deployment to U.S. homes and businesses. We certainly believe that it is not happening fast enough -- and we believe that the computer industry could play an important role on the issue.

Encryption

Background: CSPP does not want to spend a great deal of time talking about encryption. They have been fairly supportive of the Administration's position, and willing to meet us half way. IBM and many other hardware companies have been supporters of the Key Recovery Alliance. Unlike BSA, they have not been pushing legislation that the Administration would find unacceptable. They would like to start meeting with the Administration towards the middle of next year, given that the current regulation will end in beginning of 1999.

Talking points:

- First of all, I want to thank you for continuing to work with the Administration on this tough issue.
- We really appreciate your willingness to try to meet us half-way, and for not conducting your negotiations with the Administration in the press.
- We'd be happy to meet with you next year to discuss how the policy is working and what's happening in the marketplace.

Educational technology

Background: Sumner Redstone has sent a letter to CSPP asking them to participate in the Corporate Commission on Education Technology's plan to get an additional 100,000 multimedia PCs into U.S. classrooms. You should ask them to seriously consider the request either as indivisuals or as a group, and to get back to you with their decision.

Talking points:

- As you know, one of the top priorities of the President and me is to bring educational technology into the schools. We think that if technology is used correctly -- it can make a real difference in the way teachers teach and students learn -- and prepare our children for the high-tech workplace of the 21st century.

- We have just made a good deal of progress on getting schools connected to the Internet with the FCC decision to provide deep discounts for schools and libraries.

- Now we need to make progress in the other areas - such as multimedia computers and professional development.

- I know that **Sumner Redstone** has approached you about having the computer industry get involved in a campaign to place an additional 100,000 multimedia computers in our schools, and to help schools develop a plan for using them effectively.

- I hope that you will take this request seriously, and get back to me with what you think you can do collectively or as individual companies.

Computer Systems Policy Project (CSPP)
Executive Committee Biographies

DR. GILBERT F. AMELIO
Apple Computer, Inc.

Dr. Amelio is chairman of the board and chief executive officer of Apple Computer, Inc.

Before Apple, Dr. Amelio was chairman of the board, president, and chief executive officer of National Semiconductor Corporation. He led the company through a financial transformation that has resulted in record earnings for the past two years. He is a director of Pacific Telesis, and serves as vice chairman on the board of governors of the Electronics Industry Association.

LOUIS V. GERSTNER, JR.
IBM Corporation

Louis V. Gerstner, Jr. was named chairman and chief executive officer of International Business Machines Corp. on April 1, 1993.

Prior to joining IBM, Mr. Gerstner served for four years as chairman and chief executive officer of RJR Nabisco, Inc. This was preceded by an 11-year career at American Express Company, where he was president of the parent company and chair and CEO of its largest subsidiary, American Express Travel Related Services Company. He is a director of Bristol-Myers Squibb Co. and the New York Times Co.

SCOTT G. McNEALY
Sun Microsystems, Inc.

Scott G. McNealy is the chairman of the board, president, and chief executive officer of Sun Microsystems, Inc.

Mr. McNealy was vice president of operations at Sun before his appointment to president in February, 1984. He serves as co-vice chairman for the security encryption and export controls committee of the Computer Systems Policy Project. He is also on the Board of Directors of the Santa Clara County Manufacturers Board.

LARS NYBERG
NCR Corporation

Lars Nyberg is chairman and chief executive officer of NCR Corporation.

Before joining NCR, Mr. Nyberg held a number of positions with Philips Electronics NV, working in the United Kingdom, the Netherlands, and Sweden. He was chairman and CEO of Philips' Communications Systems Division and a member of the Philips Group Management Committee. Mr. Nyberg also headed Philips' Data Systems Division.

ECKHARD PFEIFFER
Compaq Computer Corporation

Eckhard Pfeiffer is president and chief executive officer of Compaq Computer Corporation.

Before becoming CEO, Mr. Pfeiffer served as Compaq's executive vice president and chief operating officer. Prior to that, he was the president of Compaq Europe and International. He is a member of the Executive Board of Southern Methodist University's Cox School of Business, the BMW Group Council, and the Board of Directors for Bell Atlantic Corporation.

ROBERT B. PALMER
Digital Equipment Corporation

Robert B. Palmer is president, chief executive officer, and chairman of the Board of Directors of Digital Equipment Corporation.

Mr. Palmer joined Digital in 1985, and was vice president of Manufacturing, Logistics and Component Engineering prior to his current position. Currently, he is also chairman of the Computer Systems Policy Project. He is also a member of the Board of Directors of AlliedSignal, Inc., and a member of the Board of Trustees of the Cooper Institute for Aerobic Research.

LEWIS E. (LEW) PLATT
Hewlett-Packard Company

Lewis E. (Lew) Platt is president and chief executive officer of Hewlett-Packard Company.

Prior to his current position, Mr. Platt was an executive vice president and headed H-P's Computer Systems Organization. Mr. Platt joined Hewlett-Packard's former Medical Division in 1966 and has progressed through the company since that time. Mr. Platt is director of Molex, Inc., and also serves on the Wharton School Advisory Council.

RONALD L. SKATES
Data General Corporation

Mr. Skates is president, chief executive officer and a director of Data General Corporation.

Prior to these positions, he had served as executive vice president and chief operating officer since August, 1988. Mr. Skates joined Data General as senior vice president, Finance & Administration in November, 1986. He is presently a trustee of Brigham and Women's Hospital, an overseer of the Boston Museum of Fine Arts, a director of the Harvard Alumni Association, and a director of the Massachusetts High Technology Council.

JAMES A. UNRUH
Unisys Corporation

James Unruh has been chairman and chief executive officer of Unisys Corporation since 1990.

At the time of the 1986 merger of Sperry and Burroughs to form Unisys, Mr. Unruh was Burroughs senior vice president, Finance. In 1987 he became executive vice president with responsibility for the Unisys commercial marketing organizations, and two years later was named president and chief operating officer. He is a member of the President's National Security Telecommunications Advisory Committee.

JEAN M. PREWITT
Podesta Associates, Inc.

Jean M. Prewitt is the Global Information Infrastructure Counsel to the Computer Systems Policy Project.

Prior to joining Podesta, Ms. Prewitt was Chief Counsel and Associate Administrator for the Office of International Affairs of the National Telecommunications and Information Administration (NTIA), an agency of the U.S. Department of Commerce. She was also a member of the National Information Infrastructure Task Force's (NIITF) International Telecommunications Work Group, a subcommittee of the Telecommunications Policy Committee.

KENNETH R. KAY
Infotech Strategies

Kenneth R. Kay is the chief executive officer of Infotech Strategies and the executive director of the Computer Systems Policy Project.

Currently, Mr. Kay is directing the CEO Forum on Education and Technology. He is also the Executive Director of the Creative Incentive Coalition. Prior to founding Infotech Strategies, Mr. Kay was a principal of Podesta Associates, Inc., a Washington, D.C. based government and public relations firm specializing in high technology issues.

CHARLES S. LEVY
Wilmer, Cutler & Pickering

Charles Levy is a partner in the U.S. law firm of Wilmer, Cutler & Pickering.

Mr. Levy advises corporations on international trade, financial and investment issues. He is currently a member of the U.S. State Department's Advisory Committee on International Economic Policy. He has also served on several U.S. Government advisory committees on international trade and investment issues.

THE WHITE HOUSE

Office of the Vice President

FOR IMMEDIATE RELEASE
Wednesday, July 9, 1997

CONTACT: (202) 456-7035

Remarks of Vice President Al Gore
Center for National Policy
Washington, DC
July 9, 1997

One hundred and sixty-five years ago, Alexis de Tocqueville journeyed to a new world. For nine months, he traveled the United States from top to bottom and back again -- seeking to discover what made America unique at that time, and perhaps for all time. He visited our nation's capital, sixteen states, and the uncharted wilderness of the Michigan Territory. He talked to farmers tilling small plots of land, and workers laboring in early factories.

What he saw was a young country beginning an historic transformation -- from the age of agriculture to the age of industry, from an old economy to a new one. But what amazed him more than any single sight was the spirit of a people in the midst of what could have been a terrifying change. Because, instead of retreat or resignation, Tocqueville saw relentless courage and infectious optimism.

And he returned to his native France to proclaim that the new American nation was, to use his phrase, "filled with promise." America -- in the words of his contemporary Ralph Waldo Emerson -- was "the land of tomorrow."

Now, I'm no Tocqueville. But in April, I decided to set out on a journey of my own. For the past three months, I have traveled America to witness something new -- to see an old economy once again giving way to a new one. During these three months, I have seen the new economy unfold in mammoth airplane hangars in Seattle, in the sunny cornfields of Iowa, on the streets of inner-city Detroit, in the high-tech labs of New England, and even in the far reaches of cyberspace.

I have seen the new economy -- an economy driven by information, research, knowledge, and technology. A new economy that values the productive capacity of people above all else. A new economy linked to a global marketplace that zaps dollars, deutschemarks, and data around the world at the speed of light. A new economy that brings the promise of a better life for all Americans.

I have discovered many things on my journey, and have as many questions as I have

answers, but one thing's for sure: this is not your father's economy. The new economy is workers who learn throughout a lifetime, not those with a single skill. It is entrepreneurs who take risks, not managers who take a pass. It is economic growth because of environmental protection -- not in spite of it. The new economy is networked, not hierarchical. Distributed, not top-down. Creative, not complacent. Multicolored, not single-hued. It thrives on reinvention, not bureaucracy. It focusses on results, not red-tape. It is customized, not standardized. It is bits, more than brawn. Wits, more than widgets. Wired, not tired. Partnership, not confrontation. The new economy is hyperlinked, hyperspeed, hypertext, and at times just plain hyper.

And as I've talked to the Americans who are building this new economy, I have seen an America like the one Tocqueville saw -- a nation filled with promise. And I have seen an America that, in Emerson's wonderful phrase, has reclaimed its position as the land of tomorrow. And I've seen Americans do all this with the same relentless courage and infectious optimism of their forebears.

For the last several months, across America, I have seen the new economy -- and I am here to tell you that it works.

I have seen the new economy at the New England Development Center of the Oracle Corporation in Nashua, New Hampshire. Two hundred brand new high-paying jobs on the cutting-edge of the Information Age. In a workplace that treats employees as assets to be developed rather than costs to be cut, the men and women of Oracle are building new low-cost, highly-efficient machines to cruise the information superhighway.

I have seen the new economy in North Carolina, where I've met with entrepreneurs, engineers, and venture capitalists who are inventing new technologies, new ways to structure business, even entirely new industries -- generating enormous wealth and setting the standard for the entire world.

I have seen the new economy on my own personal computer at a web site called Parent Soup. Parent Soup is a virtual community of parents, a thriving business that could not exist without the Internet. And it shows that the changes of the new economy go beyond just the way we do business. Parent Soup is just one example of how the new economy is changing almost every aspect of how we work and live.

But make not mistake about it: the new economy is not just computers -- it is taking root in every sector of our economy. The way every American works is changing -- must change -- to adapt to the opportunities and demands inherent in the new economy. I have seen that on the factory floor of Munoz Manufacturing in Detroit, Michigan -- a resurgent metropolis that is a far cry from the outpost Tocqueville described as a "fine American village" and a far cry from the devastation which followed the exodus of the auto-industry in the 1960s and 70s. With Empowerment Zones, the forces that shape the new economy are being used to lift up areas that

once faced a bleak curtain of despair. With the support of the automobile industry which has come back to Detroit, Munoz Manufacturing is returning jobs and hope to the heart of a great city - by responding to the entrepreneurship incentives and tax relief of our Empowerment Zone program. They are proving that the new economy can be everybody's economy.

I have seen the new economy in Johnston, Iowa - at Pioneer Hi-Bred, a company that is marrying our oldest industry with our newest science. At Pioneer, genetic engineers are developing new seeds to grow sturdier crops our farmers can then export to the world. And just as important, Pioneer is rated one of the fifteen finest corporate citizens in the entire country. This successful company is showing that treating workers and the environment right is smart business in the new economy.

I have seen the new economy in Atlanta, at the Delta International Air Cargo Terminal - where goods made in America are being exported to consumers on every continent -- and where the benefits of free and fair trade are lifting the lives of middle-class Americans.

I have seen the new economy take hold in New Castle, Pennsylvania, the home of Berner International - a company run by one of the winners of the Small Businessperson of the Year award, Gloria Berner. This one-time English literature major runs a business that makes heavy equipment -- and steady profits. The new economy is no longer an old boys club. Today, women-owned businesses employ more people than the entire Fortune 500 combined. Women owned business are increasing at twice the rate of businesses generally. This is definitely not your father's economy.

I have seen the new economy in a gargantuan hangar of the Boeing plant I visited in Seattle. There, unionized workers are building the Triple Seven - the jet that will fly us into the next century. Teams of highly-skilled workers have been empowered to act quickly on their own, free from chain-of-command second-guessing.

How did all this happen? How did this new economy come to be? There are two main answers. One is that Americans worked hard. They shed old ways of thinking, retooled ailing industries, and invented new products, new services, new ways to do business.

But the other reason is that President Clinton put in place an economic strategy that was based on a solid understanding of what was new about the new economy. Our economic strategy combined three elements never before tried in collaboration.

First, reduce the budget deficit. Forget the gold standard, the new economy operates on the information standard. Financial markets around the world make and execute decisions about a government's fiscal policies every day in millions of transactions. If investors believe you're playing games with the budget, or using smoke and mirrors, interest rates will climb almost instantly. The future implications of policy changes are judged in the present -- and so reducing the deficit is the most potent way of keeping interest rates in check and freeing capital for new

enterprises.

The second part of our strategy: invest in education and technology -- because in the new economy, education is the key to opportunity and innovation opens the door to higher levels of productivity.

The third component of our new strategy: open new markets for America's goods. In our first term, the Clinton/Gore Administration hammered out more than 200 new trade agreements to bring down tariffs on American products.

Enacting this three-part strategy of lower deficits, investments in our productive capacity, and free and fair trade was certainly not easy. Every element of our strategy faced stiff and organized opposition from those who either didn't understand the new economy -- or who understood it and wanted to hold it back. In 1993, our budget plan passed by a single vote in the House -- and a single, tie-breaking vote in the Senate. Some courageous members of Congress even lost their seats doing the right thing. It was hard. In 1995 and 96, the other party shut down the government rather than agree to the strategic investments we believed the new economy demanded. And on trade -- NAFTA, GATT, and all of those other agreements -- we rejected the advice of those in both parties who said we should build walls around the old economy instead of bridges to the new, global economy.

Each time we tried to ready Americans of this century for the economy of the next century, we faced resistance. We heard a chorus predicting gloom and doom if we carried out our plan. Each time we tried to introduce a new way of thinking about the economy, we had to break through the din of special interests and take our case directly to the American people. Each time, for every part of our plan, it was a fight -- a knock-down, drag-out, bare-knuckled fight to the finish.

In spite of a few scars and bruises, I am proud to say these were fights well worth waging. Halfway through 1997, the evidence is in. The American economy is the strongest in a generation, the envy of the world. We don't endorse their phrase, but Fortune magazine wrote recently that it is not only the best economy in a generation, but the best ever in American history. In any case, we've had the creation of 12.5 million new jobs. The growth rate close to 6 percent -- the highest in a decade. Consumer confidence stands at a 28-year high. The welfare rolls are down 3.1 million. After a long decline, incomes across the spectrum are finally ticking upward. The unemployment rate at historic lows -- just five percent last month -- and with none of this triggering inflation.

When the President and I came to office, the United States was experiencing stagnant job growth. Each time the economy was close to climbing out of its rut, businesses trying to borrow ran smack into a government trying to finance its enormous, nearly $300 billion annual deficits. That pushed interest rates higher -- and shoved the nation back into a recession. Back then the question before us was: How can we lift the economy out of its rut for good and get America

back on track?

When the dust cleared from all those fights, our new economic strategy answered that question loudly and clearly.

Four and a half years later, as we enter the first summer of our second term, and the American economy is again the world's powerhouse, we face a new question: whether we can consolidate our gains and make sure this new economy continues to take root. Are we going to continue to press forward and bring all Americans into the new economy? Or are we going to creep backward into the destructive comfort of the status quo? That is the choice we face today. Reduced to three words, the choice is this: forward or back?

That is the central question Congress faces as it returns to Washington this week to begin work on taxes, the budget, and trade. As we evaluate each initiative, we must apply the same standard: does this help Americans like the ones I've met over the last few months prosper in the new economy? Does it move America forward? Or does it tug us backward?

The next 90 days will determine the answer. In the next 90 days, Congress will decide whether to continue a three-part economic strategy that recognizes what's new about the new economy, and that equips all Americans to prosper in a time of exhilarating change.

The first part of our strategy has been cutting the run-away deficit we inherited. Already, because of the plan we fought to pass in 1993, and because we refused to turn back in 1995, the deficit has gone down 77 percent. Now we have to finish the job. We need to balance the budget -- and do it in a way that continues to support the new economy. After long and difficult negotiations, we reached a bi-partisan agreement to balance the budget. A balanced budget -- the first in a generation -- would mean we could continue the low interest rates which have freed up the capital needed by entrepreneurs to invest in the firms of the future.

And yet, believe it or not, there are those in Congress who oppose the balanced budget agreement. Some say the spending cuts are too deep; others say the tax cuts are too small. And voices can now be heard saying that our incredible progress in reducing the deficit should excuse us from taking the last steps to get that deficit down to zero. Now that the pressure's on and it's time for tough decisions, we must accept responsibility and embrace the lessons of the new economy. Now is not the time to pull back from the hard decisions and refuse to recognize that a new economy calls for new policies.

And now is not the time to heed the calls of those who say the budget will balance itself. Hoping the budget will balance itself is not the answer. The only answer is to make hard choices, pass a credible plan, continue on course, and eliminate the deficit.

As we balance the budget, we must also continue to transform the federal government. But new ideas must be implemented in new ways. Over the past decade, American business has

changed the way it does business. It has emphasized choice, quality, and efficiency. All around America, companies large and small have stopped doing "business as usual." And in the past four years and a half years, this Administration has stopped doing "government as usual." Our Reinventing Government initiative is one of the reasons we have the ability to both balance the budget and still increase our investments into the future. We have cut 300,000 government employees from the federal workforce and are getting rid of 16,000 pages of unnecessary regulations. But even more importantly we have changed the way government views its role. We're listening to federal employees and following their ideas. Once the focus was on filling out paperwork and making sure forms were done in triplicate -- today the focus is on serving the customer and offering them choices.

I'm pleased that both houses of Congress having been moving ahead on a balanced budget. Now, the Congress and the White House must work together to produce a conference agreement that is consistent with the Bipartisan Balanced Budget Agreement and put the final nail in the coffin of fiscal irresponsibility. We cannot build the new economy on a foundation of hot checks. Those who oppose a balanced budget and refuse to make cuts in spending are refusing to give the new economy the breathing room it needs to grow.

At the same time we must also continue with the second part of our strategy: investments in the future. These are needed to give the new economy the energy it needs to grow. We should reject the views of those who say that a balanced budget and the lower interest rates it brings will be enough by themselves to build our new economy. For in the new economy, the true [illegible] of growth are ideas -- and the technology and higher productivity created by those ideas.

That is why we need to make the priority investments the new economy demands. Investments in education, technology, and the environment. The budget agreement calls for the largest increase in our commitment to education in a generation -- by increasing Pell Grants, by making sure that our schools meet the highest world class standards, by deploying an army of a million reading tutors for our children, and by reforming the public school system so that it follows the model of decentralization and choice epitomized by the vanguard companies of the new economy. And because technology is always changing and the science and technology revolution is still accelerating, we need to continue to increase our investment in research and development. Ideas, innovations, and inventions are the forces moving the new economy. And unless we help them along, the new economy will pass us by. Our willingness to make investments like these created a vibrant middle class, built the federal interstate, and even today is taking us to Mars. Abandoning these investments now will keep too many Americans [illegible] on the launch pad of the new economy.

We need to invest in America, but we also have to make it easier to let Americans invest in themselves. The answer to the challenges we face is not just more spending, but equipping citizens to master their own destinies -- trusting Americans to make the right decisions for themselves. And that's why the President put forward a tax cut plan last week that is built around the idea of Americans getting ready for the opportunities of the new economy.

At the moment there are three tax packages on the table for the American people to consider -- the President's plan, and the plans passed by the two branches of Congress. Each contains different priorities, each has a different vision for America's future, each responds differently to the challenges presented by the new economy.

Well, I have seen the Republican tax proposals -- and I am here to tell you they don't work.

Where the President's plan treats education as a necessity, the Republican plans see it as a luxury -- a nice little bonus to add onto your resume, if you can afford it. Perhaps they don't understand the new economy, or perhaps they just don't understand what it means to the nation. But by the year 2000, a little more than two years from now, more than 60 percent of jobs in America will require the use of information technology -- and a high school education just will not be enough. We need to make sure that every young person is ready for the future.

That's why the President has included the HOPE Scholarship in his tax cut plan -- a real HOPE Scholarship providing a real hope for those that desperately want to go to college and want to swim with the rising tide of the new economy. The Republican plans provide some support for the first two years of college, but not enough to make their HOPE Scholarship more than a mirage. In between all of the percentage signs and decimal points of their plan, hope is lost and so is the promise of the new economy.

And unlike the Republican plan, ours offers help to students in all four years of college, including graduate education beyond that. But it's not just the young. In the new economy, education is becoming part of the working day of every American. That's why one of the most important differences between our tax cut plan and the congressional plan is in how we view lifetime learning. Their view of the economy is mired in the forgotten past of a day when employers thought a worker's education was likely to get in the way. The new economy is different because it is a learning economy. A flexible and engaged mind is as important today as a strong back and a sturdy work ethic were in earlier generations. Every job requires workers to constantly upgrade their skills. Technology is changing so fast that manuals are obsolete before their ink dries.

Unlike the Republican plan, ours therefore has a 20 percent tuition tax credit that provides support for Americans to learn throughout their lives. Our plan excludes employer provided education benefits from taxation and has a 10 percent employer credit for training in small businesses, the lifeblood of the new economy. Today, you are never old enough to stop learning: We have to recognize that in the America of the new economy, the more we know, the more we grow.

Tax cuts are good for America -- but there is a right way and a wrong way to go about it. The Republican tax cuts cut too many Americans out of the new economy and tax the patience of families that are trying to get ahead.

Another way our tax cut plan provides critical support for the new economy is through our targeted small business capital gains tax incentive. This will help small technology companies raise capital more easily. Under our plan, investments in companies with assets of up to $100 million will be eligible for reduced taxes on capital gains. These small start-ups provide the energy and vigor of the new economy -- they are the laboratories where the land of tomorrow is now being born. This kind of capital gains tax cut will help more start-ups get off the ground, and ensure that America continues to lead the world in high technology.

And, of course, we must invest in the environment. We have to protect our environment and make the investments necessary to keep our air and water clean and safe. Because, in the new economy, protecting the environment is not a sacrifice we make by slowing the economy, it is a precondition for a growing economy.

Investing in the new economy -- by using the tools of both the budget and tax cuts -- has been, and will continue to be, the key to our success. And our investments in education, technology, and the environment have responded to the new economy in a way that recognizes that the world has changed. The old debates of the extremes of both ends of the political spectrum just don't make a whole lot of sense anymore.

On one hand, there are those who criticize the budget for cutting spending too much. Their vision seems to be one of a large, centralized government protecting Americans from any adversity and proposing a program for every problem.

On the other hand there are those who criticize this budget for cutting spending too little. Their vision seems to be one of almost no government -- where every American is on their own and Washington's only job is to get out of the way.

Well, both are wrong. Their debate is straight out of the 1930s. Its irrelevant to the new economy. Americans in the new economy don't want government to be our nanny or a deadbeat dad. What we want is government to be our partner -- not to do things for us and not to leave us twisting in the wind, but to help empower us do things ourselves. That's what our investments are all about.

Government should neither hold our hand and nor give us the back of the hand. But, in the new economy, government must give us a hand in building a better future.

This was the vision of government we set forth in 1993, the vision we defended in 1995. Today, the lines of battle are being drawn again. Listen carefully and you will hear the huffing and puffing of out-of-shape and out-of-date dogmas trying to keep up with the dynamism of the new economy. The new economy has trumped old politics time and time again. The fights on the budget and taxes will show whether we will face the new economy with courage -- or flinch from it in fear.

Once it finishes hashing out the budget and tax plans, I expect Congress will turn its attention to addressing the third element of our economic strategy: our commitment to free and fair trade. Our administration will press the Congress for fast-track authority to expand free trade, particularly in this hemisphere. And once again, we must insist that they look at this issue through the prism of the new economy. Because the new economy is a global economy, woven to the world. That is an undeniable truth. The workers at Boeing know it, the workers at Munoz Manufacturing know it. Now, we need to make sure our elected representatives in the Congress know it.

President Clinton and I fought hard to open foreign markets to U.S. products with some 200 trade agreements. But each time, we faced resistance - from those who believed we'd reach prosperity by building walls instead of bridges. Each time there was a fight.

The fight continues today. If protectionism was wrong in the Industrial Age, it is just plain dangerous in the Information Age. At a time when knowledge is the most important component of national success, America -- the land of innovation -- should embrace free and fair trade with open arms. At a time when we trade in goods and services with every corner of the globe, America -- the most diverse nation the world has ever known -- has a comparative advantage the rest of the world could only dream of. And at a time when people around the world watch our movies and our TV shows and listen to our music, America -- the superpower of creativity -- is looked to for leadership and inspiration. This is one area where America, in Tocqueville's phrase, is truly filled with promise. Protectionism risks draining that promise away.

And yet even today, with the new economy a fact of all of our lives, there are those who subscribe to the mistaken belief that building fences tall enough will keep change away -- and keeping change away will make America more prosperous. This philosophy hinges on the belief that American workers and American entrepreneurs aren't as good as the rest of the world -- and need to be protected by a benevolent government. That is just manifestly wrong. In my journey to see the new economy, I found an America that has shown itself to be the most creative, most innovative, most productive economy in the world -- and that didn't happen because of government protections. Done right, with agreements that safeguard the environment and the rights of workers, trade can lead us to a more prosperous tomorrow.

The new economy is all around us. Ask the auto mechanic who works on cars like the Ford Taurus, a car that has more electronic equipment than the lunar landing module that took men to the moon. Ask the nurse who relies on computers to track records and monitor patients. Ask the kids who chuckle to think that there was a time before ATMs and cable TV. And then chuckle yourself for thinking about how their kids will laugh at a time before videoconferencing and auto-pilot cars were standard. We truly are the land of tomorrow.

Just as the past 90 days have helped me to articulate my vision of the new economy, the next 90 days will shape our nation's response to the new economy. And as I said earlier, buried

in the all the talk of resolutions and reconciliation, hidden amid the distributional tables, between the lines of the footnotes to all the fine print there is a simple question: forward or back? Will we renew the economic strategy forged in 1993 or veer off to follow the sirens' song of the extremes? Will we embrace the new economy or try to recreate an obsolete past? Soon all these questions will have answers. We must choose wisely. We've done it before, we can do it again.

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Remarks of the Vice President (As Prepared for Delivery) DLC National Conversation Speech

THE WHITE HOUSE

Office of the Vice President

FOR IMMEDIATE RELEASE July 18, 1997

Remarks of the Vice President
(As Prepared for Delivery)
DLC National Conversation Speech
Watergate Hotel, Friday, July 18, 1997

I want to begin by thanking Al From, the true guiding light of the DLC. Al has done an enormous amount to change the debate in our party, through the sheer force of his ideas, and through his tireless commitment to moving past the old labels and categories to find what really works in American government.

I'm also grateful to Will Marshall, who has served as a true conscience of the New Democratic movement, and who has made the Progressive Policy Institute one of the most vital centers of ideas and action in this country.

My fellow New Democrats: we hold this national conversation at a time of change and choices. Change because the world around us is being transformed faster than ever before in our history. Choices because we, as a party and as a nation, must now decide whether we will embrace that change, with all the promise and possibility it brings, or fight vainly against it.

This question may be new for our generation -- but it's one that our party and country have faced at every critical turning point in our history. And the Democratic Party has survived for more than two centuries because at almost all those crucial moments, we've had the courage to embrace change -- to meet new challenges in bold and creative ways, while staying true to the core values that have always sustained us, and given us hope and strength.

We are, and always will be, the party of Thomas Jefferson -- proclaiming that every person is equal in the eyes of our creator. We

are, and always will be, the party of Franklin Roosevelt -- bringing hope, opportunity, and economic prosperity to the nation. We are, and always will be, the party of John Kennedy -- summoning new generations to service, and citizenship, and a deep responsibility to one another.

And thanks to many in this room, we are, and always will be, the party of William Jefferson Clinton -- giving people the tools to make the most of their own lives; balancing the rights of citizenship with its profound responsibilities; defending our oldest, deepest values of work, family, and community as we move into a new economy and century.

Make no mistake: to be a New Democrat is to stand in the broad sweep of our party's proudest history and best traditions. President Franklin Roosevelt said it best: "It shall be the task of our party to break with foolish traditions."

Starting in 1993, we broke with plenty of foolish traditions -- of the Republican Party, and of our own. In doing so, we began to forge strong and sensible new traditions -- and they are serving this nation well.

Today, we're not only a party of change, we're a changed party. Think back to the agenda we set out back in Cleveland six years ago -- a package of impossible dreams, on the brink of an unwinnable election. But now, those dreams have become reality for millions of Americans:

Cutting taxes through the Earned Income Tax Credit, to lift hard-working families out of poverty -- a DLC idea, now law. Creating AmeriCorps, to include service among the obligations of citizenship -- a DLC idea, now law. Making welfare a second chance, not a way of life -- a DLC idea, now law. The toughest child support enforcement ever, to demand the responsibility that comes with parenthood -- a DLC idea, now law. Community policing, so police officers become part of the neighborhood, and stop crime before it starts -- a DLC idea, now law. Family and Medical Leave, so parents can succeed both at home and at work -- a DLC idea, now law. More than 200 free and fair trade agreements, to give our workers more markets in which to shine. Reinventing Government so it works better and costs less. Both DLC ideas -- both making a powerful impact on our government and our economy. Together, we have turned this country around -- and made an enormous difference to our families and our future.

These ideas are changing not only America, but increasingly, nations around the world -- because these are ideas that don't just win at the polls, they work for the people. In Great Britain, Prime Minister Blair and New Labor have taken up the mantle of opportunity, responsibility and community -- renewing their country, just as we renewed our own. Throughout Europe, and in many other parts of the world, progressive parties are embracing DLC ideas, and putting them into practice. Let there be no doubt: this isn't an interest group -- it's a movement.

As we all know, none of this happened overnight -- and none of it happened without a fight. For decades, this town was used to recycling tired old proposals, and then pointing fingers when they failed. Bill Clinton and I offered a new approach. Our message, crafted with your considerable help, was simple: let's take what works, junk what doesn't, and then get the job done. It was an approach worth fighting for.

Our first big fight was about the economy. We knew we couldn't begin to prepare for the future until we'd cleaned up the economic mess created by previous administrations that passed the buck when they should have been passing tough, responsible budgets. They left us deficits of $300 billion a year, a quadrupled national debt, and a triple-dip recession -- with rising unemployment and crime, and declining investment and hope for the future. We changed all that in 1993, despite powerful, organized opposition. Our economic plan, based on the thinking of many in this room, merged three elements that had never been combined before: real fiscal responsibility, targeted investments in our people, and an unprecedented push for free and fair trade.

Because we were willing to fight for our new ideas -- because Americans worked hard and shed old ways of thinking -- our economy is now the strongest in a generation, and a model for the rest of the world. Indeed, Fortune magazine says that it's not only the best economy in a generation, it's "stronger than it's ever been before." Whether that praise is justified or not, here are the facts: 12.5 million new jobs. The highest economic growth in a decade. The greatest consumer confidence in 28 years. Incomes that are finally increasing across the board, after a long and painful decline. A stock market that has increased 150%. More small businesses in each of the last four years than in any years in American history. The lowest African-American unemployment in history. Unemployment that has fallen to historic lows -- all without a single trace of inflation.

With this economic strategy, we've done much, much more than just clean up the mess of the previous 12 years. We've really laid the foundation for the new economy -- an economy that's not just better and stronger than the old one, but very different as well. It's an economy driven by information, research, and technology. The new economy values the productivity and creativity of our people above all else. The new economy is connected to the global marketplace, where we zap dollars, deutschemarks, and data around the world at the speed of light.

Of course, when we talk about this new economy, we're not just talking about high-speed data, or mind-boggling technology, or unprecedented opportunities to sell our wares on every continent. We're really talking about our children and our families, right here at home -- what will give them the best future, and the greatest chance to reach their potential and make the most of their lives. We're talking about renewing the American dream itself -- to make certain that the promise of America is always available to those willing to shoulder the responsibilities of Americans.

To strengthen those old values in a new economy, we once again need new thinking. From Jefferson to Jackson, from FDR to JFK, our party has always been at its best when it has met the challenge of change. That is the reason that we meet here today as the Democratic Leadership Council -- and not the Whig Leadership Council.

There are some who will fight us as we embrace change once again, just as they did when the agricultural age gave way to the industrial age. But today, on the eve of the new century, it is time to recognize that virtually all Americans -- whether they work on farms, or on factory floors, or in high-tech labs -- are, in one way or another, part of the new, knowledge economy, relying on new skills and technology to be more innovative and productive. That is why the critical task for our party is to make sure that in this new economy, everyone has the tools they

need to succeed -- if they're willing to work for it.

More and more, the women and men of this new economy understand and harness the power of technology for our nation's future. They're in Silicon Valley and the Research Triangle, of course. But they're also the unionized mechanics and engineers who work on the airplanes of the future. They're the nurses who rely on computers to monitor their patients. They're the bank tellers who use computer terminals to handle transactions. Their numbers are rising rapidly in every state. Take one example: in California, knowledge workers now comprise more than half the entire workforce.

The Institute for the New California and Morley Winograd, who is here today, have taught us even more about today's knowledge workers. They work in unstructured teams rather than top-down hierarchies. They are empowered to make crucial decisions for themselves. Powerful computers and new technology give them more freedom and flexibility on the job -- but these workers also show greater teamwork, and a greater sense of community -- because they are forced to solve new problems together, and work and think in new and creative ways.

There's an important lesson to be learned here. Just as the new workplace creates an environment where people can make the most of their own potential, we need a government that creates that same kind of opportunity, and embodies those same values: no heavy-handed, top-down solutions; more choice; more teamwork; more responsibility for oneself, and for others; more emphasis on giving people the tools to work together and solve their own problems.

This was the vision of government we set forth in 1993, the vision we fought to preserve in 1995. Today, the lines of battle are being drawn again. Listen carefully and you'll hear the huffing and puffing of out-of-shape and out-of-date dogmas trying to keep up with the dynamism of the new economy. The new economy has trumped old politics time and time again. And Americans are better off because of it.

Here are some of the steps we are taking to fulfill our vision, and build a 21st Century government. Balancing the budget is the first step -- not because it's a totem to worship, but because after decades of sheer fiscal recklessness, we Americans need to reaffirm our capacity for self-discipline, our competence in the art of self-government, our ability to control our own destiny and redeem the promise of representative democracy.

You think that's not an important signal to send? Forget the gold standard -- the new economy operates on the information standard. Financial markets around the world make decisions about a government's fiscal policies every day through millions of transactions. If investors think you're playing games with the budget, interest rates climb almost instantly. The future implications of policy changes are judged and acted upon in the present -- so reducing the deficit is the most potent way of keeping interest rates in check and freeing capital for new enterprises. Every year the budget is out of balance, our national debt increases. Every dollar we waste through the budget deficit is a dollar that could have been spent preparing this country for the 21st century. We can simply no longer afford policies based on second-hand smoke and rear-view mirrors.

Now, some say that the economy is so strong, we can just sit on our hands and let the budget balance itself -- or that "almost" should count for budgets as well as horseshoes. But let's not kid ourselves. If we're really serious about restoring people's basic faith in their government, and showing that we can get a job done -- if we are really serious about leading the nations of the world into an era of fiscal discipline and responsibility -- then we cannot be satisfied until the deficit is brought down to zero. Would we be satisfied if the Pathfinder had almost made it to Mars? This year, both parties must work to give America its first balanced budget in thirty years -- and this year, we have to go the distance.

We must also face up to the fact that without a balanced budget today, there may be no progressive, activist government tomorrow. If we don't rein in the runaway debt and rising interest rates that failure to balance the budget will surely bring -- if we allow the red ink to continue spilling right as the generational deficit threatens to engulf our budget in the first decade of the next century -- then how can we possibly afford to meet America's challenges in years to come? Balancing the budget isn't just the prudent thing to do -- it's really the progressive thing to do as well.

This administration has shown how America can have a budget that is both progressive and responsible. Because of the success of our 1993 economic strategy and all the growth that has followed -- because of all the money we've saved by slashing the deficit 77% and shredding red tape and bureaucracy all across the government -- we are in the fortunate position of being able to balance the budget while still investing in our people -- investing in more education, a cleaner environment, more jobs and opportunities for families, a strong national defense, and more safety and security all across America.

We're going to start with education -- our number-one priority. How can we be serious about preparing for the knowledge economy if we don't do more to expand the knowledge of all our people? Education is about equipping people for the high-paying jobs of the future, but it's also about our values. It's about the opportunity that has always been at the heart of the American dream. It's about bringing everyone to the starting gate of the new economy, and letting them rise as high as their hard work can carry them. That is why the President was so insistent that the balanced budget agreement include the largest education increase in three decades -- and the largest higher education increase since the G.I. Bill that gave birth to our vast middle class.

We are fighting for world-class standards for all our children -- but that does not mean cookie-cutter schools. We have to support the charter school movement and pioneers like Yvonne Chan from the Vaughn Next Century Learning Center, who is here today. We need to bring market forces to our school system by encouraging more public school choice.

In the area of higher education, the President's plan makes at least two years of college as universal as high school is today, with HOPE Scholarships to pay for those years and a tax deduction to pay for any kind of education and training. Because so many of today's jobs require workers to constantly upgrade their skills, our plan makes employer-provided education and training tax-free -- and we are pushing for our G.I. Bill for Workers, to collapse the confusing tangle of federal job training programs into a single skill grant that goes right into workers' hands.

We will balance the budget in a way that protects our environment -- to protect the air we breathe, the water we drink, and the food we put on the dining room table -- and to preserve our precious natural resources for our children, and our children's children. To me, the environment is about more than clean air and green spaces -- it's also about our sense of community -- realizing that we have an obligation to each other, and to future generations, to share and protect God's earth. And we now know that to protect the environment, we don't have to slow the economy; in fact, it's a way to keep the economy growing. We must continue to encourage environmental technology exports. Through Project XL, we have replaced environmental conflict with environmental cooperation. With our program of emissions trading, we have shown that government can replace the old model of command and control with new market-based strategies.

We will balance the budget and lift up our cities. That's why our tax plan includes incentives to clean up contaminated waste sites called brownfields. And it's why we must embrace metropolitan strategies that stop treating cities as islands and bring sustainable development -- eliminating subsidies that encourage duplication in cornfields and pastures of infrastructure cities already have, building links between businesses that need workers and people who need jobs, and eliminating the mindset that says for cities to win, suburbs must lose and replacing it with a mindset that makes everyone a winner. Our plan also calls for expanding Empowerment Zones and Enterprise Communities -- and creating new incentives for community development banks, which are bringing the new economy to our oldest neighborhoods.

We will balance the budget and continue to transform the federal government -- to create a government that reflects the choice, quality, and efficiency of the new knowledge economy. Today's government must focus on results, not red tape. All around America, employers and employees are moving beyond "business as usual." And in the past four years and a half years, this Administration has stopped doing "government as usual." We have cut 300,000 government employees from the federal workforce and are getting rid of 16,000 pages of unnecessary regulations. But even more importantly, we have changed the way government views its role. We're listening to federal employees and following their ideas. Once the focus was on filling out paperwork and making sure forms were done in triplicate -- today the focus is on serving the customer and offering them choices.

As some of you know, the money we saved by reinventing government went right into another critical DLC priority -- the 100,000 community police we fought for, and won, as part of our 1994 Crime Bill. Like our economic plan the year before, the Crime Bill was another stake in the heart of the tired old Washington orthodoxies. Unlike previous crime bills -- and there had been many -- this one combined everything that worked -- punishment and prevention; more prisons and the innovative new law enforcement strategy we call community policing. Like our economic plan, a lot of people didn't like that combination of approaches -- they didn't know how to react to a crime bill that was both tough and smart -- so they fought it, tooth and nail. But like our economic plan, we won and they lost -- and the American people have reaped enormous benefits these past three years.

Serious crime is down five years in a row, and we have just had the largest drop in violent crime in 35 years. And thanks to the Brady Law, we've kept 186,000 felons, fugitives, and stalkers from buying handguns.

But we know the job is not yet done. According to a report by the Justice Department's juvenile division, unless we act now, the number of juveniles arrested for violent crimes will more than double by the year 2010. That means we must launch a full-scale assault on juvenile crime. Congress must pass our Juvenile Justice Act -- to target teen gangs, get guns out of the hands of violent juveniles, and do more to prevent crime before it starts.

It is especially important that we focus on positive alternatives to crime and drugs -- which means not only giving children something to say yes to, but also giving families the opportunities they need to build better futures. In fact, one of the ways we must finish balancing the budget is by continuing the dynamic relationship between more jobs, growth, and opportunity on one hand, and the deficit reduction that keeps our economy humming on the other. That's why we must create more opportunity for families -- and that's why we must make work pay.

One DLC idea that has been a central part of our economic strategy is the expansion of the Earned Income Tax Credit, which has cut taxes for 15 million working families. Together with our minimum wage increase, it has ensured that no parent working full-time has to raise their children in poverty. How dare the Republicans describe the Earned Income Tax Credit as welfare.

We want to continue to cut taxes for working families, to help them raise their children -- and that is why we have pushed so hard for a $500 per child tax credit. This is an idea that is very near and dear to me. It was at the Cleveland meeting of the DLC back in 1991 that I talked about honoring middle class families by giving them this kind of tax break.

And quite frankly, there is some concern about the fate of real, middle-class tax cuts for those who deserve them the most in this budget deal -- and it's not because of the Democrats. Democrats are united in the belief that we need tax cuts, and we need them for the middle class. We are united in our belief that those tax cuts must be focussed on families and on education. And we are united in our sincere hope that Republicans will join us in forging a bipartisan compromise to meet those critical needs.

As we make work pay, we are also making work and responsibility a way of life for those who had been on welfare. With your help and with the help of the states, we tore down the old welfare system. Thanks to a roaring economy and the state waivers we granted, the welfare rolls have dropped by 3.1 million in the past 4 years -- more than they increased in the program's first quarter-century. Now comes the hardest part -- making sure the jobs are there so those who had been on welfare can become permanent members of the workforce. Our welfare-to-work tax credit will help by providing incentives for employers to hire people off welfare; many of America's leading companies have joined us in this effort. At the request of President Clinton, I am spearheading an effort by the federal government to hire 10,000 welfare recipients into available jobs in the next few years, even as we continue downsizing the government. But we all have to do our share.

Once we eliminate the budget deficit, we must address the generational deficit. We owe it to ourselves and we owe it to our parents and children to pass reforms in the entitlement system -- to make it work better, and to make sure it is solvent and secure for our children. The

President has made it clear that we will not shrink from the tough but necessary choices when it comes to reforming entitlements.

And let there be no doubt -- neither will we turn away from expanding free and fair trade. That means President Clinton needs the same authority that every modern President has had to negotiate fast-track agreements. With 95% of the world's consumers living outside of our borders, how can we cut ourselves off from the world? We know that the future of American prosperity lies in free and fair trade. The trade deficit may rise and fall from month to month, but that shouldn't stop us from tearing down walls and building bridges -- and doing it in a way that protects the environment and workers' rights. Without fast track, the President's hands are tied behind his back. With it, we can create more jobs and opportunities in this country, and strengthen the democratic and free market movement that is sweeping the world, especially in South America. So I hope that you will all work with us to win the fast track vote. It's going to be another big fight -- but I believe it is a critical one.

As you can see, we've done a lot together -- but we have a lot more to do. We've won a lot of tough fights, but some of the toughest still lie ahead.

Together, we have created a new vision of government that works in a new economy. And now we must choose: do we move forward, or turn back? Our renewed and revitalized Democratic Party has won two Presidential elections after a long march through the desert of defeat. The middle class is coming home. People of all races are streaming into the party -- based not on an appeal to special interests but on what Franklin Roosevelt called the "concert of common interest." This is no time for us to give up, or give in, or turn back. The stakes are too high -- and the progress we've made is far too great.

The fact is, being a New Democrat is a journey, not a destination. Change and progress are battles that must be fought and won each and every day. We can't say whether today's approaches will be the right ones in our children's day, or in their children's day. But we know that to meet even today's challenges, we must continue to modernize and renew ourselves -- to constantly look for new paths to the oldest truths -- to find ways to meet the challenges of change without changing what is so fundamental in our party, in our families, and in ourselves.

Together, let's continue the journey of hope and progress that the Democratic Leadership Council has done so much to guide. Let's build a Democratic Party that does not live in the past, but builds on it -- that does not merely reside in history, but continues to make it.

Thank you for listening -- and thank you for doing so much for our party and country.

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Remarks As Prepared For Delivery
Vice President Al Gore
Software Publishers Association
Tuesday, September 9, 1997

I'm here today to talk about America's future -- but I want to begin with a small parable from our past.

One hundred and three years ago, on the Pumpkinvine Pike in Kokomo, Indiana, a man named Elwood Haynes showed off the very first horseless carriage. And it really was just that -- the same hand-crafted buggy Americans had known for generations, but with one important change. It had a motorized engine instead of a horse. It was a huge step forward, to be sure -- but by the 1930's, Haynes's company and others like it had all but disappeared.

Henry Ford and others saw something that Haynes didn't. They knew his invention had the potential to be a huge transforming force -- but only if it came with a vision as bold as the invention itself. So they re-tooled Haynes's idea, introduced the revolutionary concept of mass assembly, and began selling vast numbers of automobiles -- to a growing middle-class they helped create, by paying their workers the high wages they deserved.

The lesson here is obvious: applying the same old approaches to new times is often a recipe for failure. Fortunately, America has always been willing to transform itself -- from the Agricultural Age to the Industrial Age to the Information Age. And this latest transformation may be the most breathtaking one of all. In America and around the world, a new economy has been born.

I don't need to tell you this, because you are the pioneers of that new economy. And you know that it's an economy that's not just better and stronger than the old one, but very different as well. An economy driven by information, research, knowledge, and technology. An economy that values the productivity of our people above all else. An economy that is part of a thriving global marketplace, where we zap dollars, deutschmarks, and data around the world at the speed of light.

In the face of all this change, government and business face some fundamental questions: Will we be like the carriage makers of Kokomo, clinging to the same old approaches until we're left in the dust? Or will we recognize that a new economy requires new approaches? Will we block the roads of progress, or will we be the ones to pave the way? Will we build walls, or will we build bridges?

I'm here today with a simple message: President Clinton and I are committed to moving America into this new economy with confidence and courage -- and acceptance of change. We're committed to nurturing the new industries and technologies you represent, removing the barriers, and making them work for all of our people. We are committed to giving everyone the

tools to succeed in this new economy, so that no one is left behind. After all, that's the basic commitment that has already given us nearly 13 million new jobs; unemployment that has stayed below 5%; more than 200 new trade agreements; and the highest levels of investment growth and consumer confidence in a generation.

Today, I want to talk about our plans to build on that record -- by establishing a new framework for commerce in the digital age; by preparing all Americans for the challenges of the new economy; and by doing even more to tear down trade barriers, so our workers can compete and win around the world.

First, let's talk about commerce in the digital age. It's stunning to think that five years ago when this association last met in Washington, the word "Internet" did not even come up. The World Wide Web had not even been invented. Today, 50 million people in more than 150 countries are connected to the Information Superhighway, and we expect five times that many to be connected by the year 2000. You can already buy almost anything on-line -- and trade on the Internet is doubling or tripling every single year. In just a few years, it will generate hundreds of billions of dollars in goods and services. But the old government approaches to commerce simply don't apply to electronic commerce. Even if we wanted to apply the old rules to this new marketplace, those rules would be obsolete before they hit the law books. If we heavily regulate something that depends on its ability to be fast and flexible, we risk suffocating what makes the Internet so special.

That's why, in July, our Administration released a new framework for global electronic commerce -- to lay out the principles we will advocate as we seek to establish basic rules for international electronic commerce. And that basic approach is one of minimal government, minimal regulation, no new taxes and no cumbersome regulation. Because the Internet has such an explosive potential for prosperity, it should be a global free-trade zone, and government should make every effort not to stand in its way.

We want to encourage the private sector to regulate itself as much as possible. We want to urge all nations to refrain from imposing new taxes, tariffs, unnecessary regulations or cumbersome bureaucracy in the area of electronic commerce. Where government involvement is necessary, its aim should be to support a predictable, consistent legal environment for trade and commerce to flourish -- which means a special effort to crack down on piracy and ensure copyright protections. And we should do our best to revise any existing laws or rules that could inhibit electronic commerce.

With this framework, we are helping to make sure that commerce goes digital, that business goes global, that ingenuity goes wild. America's approach to electronic commerce must be guided by a digital Hippocratic oath: first, do no harm.

The President has asked me to oversee this entire initiative, and we're already starting to get to work. Federal agency heads are reviewing their policies that affect global electronic

commerce, to ensure that they are consistent with our core principles. Our Cabinet is beginning to work to achieve some of our key objectives both at home and abroad. On that note I want to acknowledge the Commerce Department officials who are here today, and have been working with the SPA on the exciting new Electronic Commerce Web Resource Directory.

But there is a key area where we need your help. We are changing from an analog to a digital world -- but that doesn't mean the basic rights and values of the American people have changed. Right now, many of the most basic protections for our people are missing from cyberspace. We need the leadership of the private sector to help parents protect their children from objectionable content on the Internet, and to ensure that we develop effective methods of protecting the privacy of every American. I applaud the efforts you have made so far. You've already invested in tools that protect children's impressionable minds. Now we need your help in building them into impressive minds -- and protecting the very basic right of privacy which knows no age limit. This is a burden the private sector must take very seriously. We're giving you the opportunity to take the lead on electronic commerce, but with that opportunity comes a responsibility. We must realize that the digital world can be a frightening place, filled with new challenges as well as opportunities. As we move into that new world, it will take a lot of hard work to transfer the protections and institutions we have developed in our old world.

And it is not just citizens who feel challenged by the new digital world. Institutions across our landscape -- from state and local governments to corporations to law enforcement agencies -- are also struggling with how to adjust to the digital world. Whether the issue is taxation or encryption, we need to strike a balance that allows electronic commerce to flourish while protecting the legitimate needs of these institutions. Without a doubt, encryption is probably the most challenging of these issues. The Administration's position has not changed on encryption, but this is an area where we need to find ways to work together -- to balance the legitimate needs of law enforcement with the needs of the market place.

As we rely more and more on a medium as vast, as sprawling, and as unregulated as the Internet, it is crucial that we find new ways to safeguard our most basic rights and liberties, so that we can trade and learn and communicate in safety and security.

That brings me to my second point. We know that the new economy is about more than dollars and cents. It is also about our values -- making sure that every generation can stake their claim in the American Dream. If we are going to ensure that this dream stays alive for our children, if we are going to ensure that they can fulfill the promise of this age of possibility -- then we must give them the tools to succeed in the new economy. That means a dramatic expansion of education, training, and technology in our schools and libraries.

I am proud to say that our balanced budget helps us achieve that. It eliminates the deficit while cutting taxes for families and businesses, investing in our future, and honoring the values that have always made this nation great. Throughout the long and arduous budget negotiations, President Clinton and I never lost sight of an important fact -- that balancing the budget for the

first time in a generation was crucial, but by itself it was not enough. Balanced budgets and lower interest rates do not build a better economy by themselves -- they are crucial but not sufficient. Especially at a time when about half of our economic growth is due to technological innovation, we've got to make sure all Americans have the skills to keep on innovating. And we've got to make sure that our nation has the information infrastructure to keep on working and innovating.

That's why we fought so hard to give software companies the Foreign Sales Corporation tax benefit -- to increase exports and give the software industry the ability to compete fairly in the global marketplace. And we are working closely with the FCC to make sure that we move to a competitive telecommunications marketplace that can deliver higher bandwidths and more advanced services. At the same time, we have fought efforts that would take us backwards -- such as wrong-headed efforts to impose new access charges on Internet providers. And not only must we bring competition to our telecommunications; we must also look to the future. That is why we have launched a $100-million-a-year Next Generation Internet Initiative, to connect more than 100 research institutions at speeds of up to 1,000 times faster than today's Internet. And to those who doubt the value of this investment, think back to the time 20 years ago when a precious few of us were fighting for the funds for the first Internet. We wanted to demonstrate that this whole thing could happen.

That's also why President Clinton and I fought so hard to expand higher education -- and we won the largest increase since the G.I. Bill 50 years ago. That includes our HOPE Scholarship tax credits -- to help make at least two years of college as universal as high school is today; a 20% tax deduction for all college, graduate school, and job training; and the largest increase in Pell Grants for needy students in 20 years. By the year 2000, 60% of jobs in America will be centered around the use of high technology. A high school education just isn't enough to fill those jobs. As you know first-hand, last year there were almost 200,000 jobs in the information industry that couldn't be filled because you couldn't find people with the skills and education to perform those jobs. These high-wage jobs are the ticket to a brighter future, for those who hold them and for our nation -- and we have to make sure that not a single one of those tickets goes unpunched.

Of course, we've got to introduce our children to technology long before they reach college. That is why President Clinton and I are working to connect every classroom and library to the Internet by the year 2000. We've challenged community and business leaders to work with us, to provide modern computers for our classrooms, to give teachers the skills they need to use this technology, and to produce the most engaging educational content. You have joined with us in this effort -- and we're making a great deal of progress. We worked with the FCC, under Chairman Reed Hundt, to pass a special "E-Rate" for schools -- worth more than $2.25 billion a year -- a massive investment to make sure our classes are connected to the Internet. We launched a $2 billion Technology Literacy Challenge Program to help get this job done. But we still have a long way to go -- and the year 2000 is less than a thousand days away.

We increased the number of school connected to the Internet from 35% to 65%. In 1990, there were 20 children per computer in this nation's classrooms. Today, there are 10 children per computer. That's real progress. But its not enough. Imagine if your employees worked 10 to a computer and still had to compete in the global marketplace. You wouldn't ask your employees to do that and still expect them to compete in the global marketplace-- we can't ask our children to do that either. Since 1994, the number of classrooms connected to the Internet has more than quadrupled. Still, only 14% of "instruction rooms" in public schools are connected to the Internet. It's not enough -- and we need your help.

Thanks to the report on the effectiveness of educational technology you issued this week, we know conclusively that the work we're doing is making a difference. Your report shows that educational technology has a significant and positive effect on student achievement. But the real results of our work will not be seen for years. The real results will be seen in a generation that surfs across the Internet with the same ease that our parents picked up pencils. This is especially important as our commerce becomes increasingly electronic, and increasingly international.

I'd like to make one more point about a very timely issue in education today. As you know, the President and I have called for a voluntary national test in 4th grade reading and 8th grade math -- to make sure our kids learn and are ready to succeed in the new economy. Fifteen large school districts and 7 states have already signed up for these tests saying they are willing to hold their children to high national standards. Those communities taking up this challenge can use all of our help -- and I ask you to try to focus some of your energy to ensure that good educational software can be a part of their reform efforts.

This global economy is all around us -- and nowhere is that more evident than in the software publishing industry. Today, 96% of the world's consumers live outside of our borders. The global economy will grow at 3 times the rate of our own economy. That is an unparalleled opportunity for us, but we have to make sure it doesn't become what Yogi Berra called an "insurmountable opportunity." If we are going to trade with the world, we must make sure that foreign markets are open and fair. And that represents a special challenge in the area of technology. If it's true that imitation is the sincerest form of flattery, software is an industry that is virtually drowning in compliments.

That's why we have pressed so hard to protect intellectual property rights. I can tell you that in the last four and half years I've had hundreds of meetings with foreign leaders around the world and I probably can count on the fingers of one hand the number of times the agenda hasn't included intellectual property. The same goes for President Clinton and his meetings. We know that your most valuable asset isn't your factory or machinery -- it is the intellectual power of your workers, and the innovative ideas they produce. Worldwide, the software industry lost an estimated $15.2 billion to piracy in 1994 alone. Without strong protection, we will never take full advantage of the exciting possibilities global trade gives us.

I'm proud that our Administration pushed for the WIPO Treaty, so intellectual property

gets the protection it deserves in the world marketplace. And we went eyeball-to-eyeball with the Chinese in 1995 -- right to the brink of sanctions -- before they gave us a sweeping and comprehensive agreement to enforce intellectual property rights. Now we have to make sure that agreement is carried out. I'm pleased to announce that this month we will be sending a team to China to discuss their implementation of anti-piracy agreements -- with special emphasis on bringing down the alarming and unacceptable levels of domestic user-end piracy.

Of course, if the U.S. Government is going to insist that foreign governments stop using pirated software, then our own practices must be beyond reproach. That's why I am charging our Council of Chief Information Officers to develop uniform federal policies for checking software policies, and responding appropriately to any illegal software. I will direct them to work closely with the SPA so that the government adopts the very best commercial practices. At home and abroad, our message will be loud and clear: Don't copy that floppy!

The next -- and perhaps most important -- step we can take to secure intellectual property rights around the world is to make sure the President gets fast-track authority so that he can continue opening markets and fighting piracy through regional trade agreements in Africa, Asia, and Latin America. This is the same authority every President has had since Gerald Ford. It's the way these agreements are negotiated in the modern era.

America is now enjoying the longest sustained period of growth in a generation -- with a quarter of that growth coming from oversees trade. We need to stay on the fast track of global prosperity. We have to come too far to turn back now. Free trade is working -- and as a result, unprecedented numbers of Americans are working. We need to stay the course.

You see, Fast Track is about something more than a handful of trade treaties. It's about our future as a nation at the dawn of a new century. Will we move forward with optimism and pride? Or will we shrink from competition, and hide behind a fortress wall? I know which side we want to be on, and I know the American people stand with us. Now I ask for your help in making sure that Congress helps to build the future, and once again gives the President fast track authority.

If protectionism was wrong in the Industrial Age, it is just plain dangerous in the Information Age. At a time when knowledge is the most important component of national success, America -- the land of innovation -- should embrace free and fair trade with open arms. At a time when we trade in goods and services with every corner of the globe, America -- the most diverse nation the world has ever known -- has a comparative advantage that other nations could only dream of. And at a time when people around the world watch our movies and our TV shows, listen to our music, and play our computer games, America -- the superpower of creativity -- is looked to for leadership and inspiration. Protectionism risks draining away the promise of the new economy.

This new economy is all around us. Ask the teenagers who don't even remember a time

before ATM's and cable TV. And then consider the fact that their kids won't remember a time before video-conferencing and auto-pilot cars.

In the end, that is what the new economy is all about. It's about an America that's always young, that grabs onto the future and refuses to let go. It's about families that are making enough to get by, and even having some left over to get ahead. It's about parents having time to take their kids to Little League, and having the energy for one last bedtime story before the lights are turned out. And the new economy is about their children, lying there under the covers, dreaming before they fall asleep. What are the worlds they see? Who do they want to be? Where do they want to go? How can we get them there? This is our test. Because they will grow up in an America where -- no matter who they are -- with hard work and creativity, they can chase and embrace their dreams.

As they wander off to sleep, they might not be thinking about the new economy, but let's keep working to make sure we build it for them -- so that they wake up the next morning, and every morning, in the America of their dreams.

September 10, 1997

MEMORANDUM FOR THE VICE PRESIDENT

FROM: DON GIPS
JIM KOHLENBERGER

SUBJECT: GEORGE GILDER'S JAVA OP-ED

SUMMARY

George Gilder wrote a recent op-ed in which he characterizes the debate over Java as a war between past and future industries -- Microsoft as the past and Network Java based computers as the future. Gilder highlights the overarching tension in Silicon Valley where companies are lining up on both sides of this debate. But it may not necessarily be a debate about past versus future industries.

Java is an exciting technology that offers us a paradigm shift away from PCs and toward the Web as the place where data gets accessed and computing gets done. But Gilder (as he often does) underestimates Microsoft's grip on the computer-web interface and overestimates Java and the speed with which change will occur.

THE STATE OF JAVA

Java was introduced as a cross-platform language that could make Internet content come alive by moving web pages from the looks of brochures to actually active programs that could run on any type of computer. Java is now used most commonly as the tool for updating data on a web page often through small applications like live stock tickers. While such "applets" have become part of the Net's repertoire, it's still true that Java is only used on 1 percent of all Web pages, and it still runs slowly. These targeted, and relatively small, applications are a far cry from the major pieces of programming promised by Java's advocates and that are necessary to challenge Microsoft.

The difficulty in transitioning to Java was highlighted last month when Corel Corporation, maker of WordPerfect which is Microsoft's main competitor in the word-processor department, abandoned its effort to turn its entire office suite into a Java package. Corel found it infeasible because of frequent updates to Java, and the fact that Java code runs too slow. Corel officials said it would take another two years before Java was stable enough to run an entire word processor. Corel's decision highlights the fact that major Java applications will still take some time before they mature.

Another indicator is John Doerr's approach. He established a $100 million fund to boost Java software startups. But so far, the fund has infused cash into 10 companies, most of which are producing software that is preponderantly non-Java. In fact, Kim Polese of Marimba, who developed perhaps the most advanced use of Java yet, recently proposed opening up her push technology to non-Java based applications...

Finally, Eric Schmidt, the main proponent of Java at Sun (now CEO of Novell) recently said privately that Java's rollout has been flawed and that as a result its growth will be significantly slowed.

Nonetheless, Java is a fantastic thing. It is the most significant thing to happen on the Internet since the invention of the browser. Furthermore, it is the inevitable result of a world wide network of computers that all speak different languages-- the web demands a cross-platform language. Java developments continue, and the anti-Microsoft coalition clustering around Netscape, Oracle, Sun and others continues plugging away at both Java itself and the network computers designed to run Java programs.

Gilder also misses the fact that Microsoft has already adopted Java. But in Microsoft style, they have added more to Java so that it forces the Microsoft platform. In fact, Java also helps Gates because it allows him to demonstrate that he does not have a monopoly on programming languages.

One way or another, over time, Java will win. The real question is will it be Microsoft's Java or will it be Sun's Java.

THE NETWORK PC

Gilder also argues the virtues of the Network PC while diminishing the importance of WebTV. He may pick on WebTV only because Microsoft now owns them. WebTV is an important technology. But it is also a strategic purchase on Microsoft's part to corner the operating systems of the television based network computer.

As for the Network computers that Gilder and Ellison promote, it is unclear if and when the Java based network PC will come of age. Gilder sees network based PCs that run only Java based applications as the future. But it is hard to imagine in the short run that businesses and the public could rely on computers that can't even run software as sophisticated as a word-processor -- still the "killer app" of the PC. It is more likely that Java will begin making a foothold in electronic devices designed for specific tasks that are network based.

There are other challenges as well for the network PC. Certain users will continue to need the desktop power of a PC, while other more transactional based users could use a network PC. At the same time, the ever-declining price of hardware continues to blur the difference between the needs for cheap computing versus a true network based PC. Further complicating the growth of network computing, network PCs depend on bandwidth because so much information must be transmitted rather than being resident on the machine. Bandwidth to the home is not expanding fast enough to allow major Java applications to be transmitted with ease. One of our great challenges is how we expand bandwidth to the home. So while network based computing is likely to come true, it will be a gradual process and PCs will continue to play a role for a long time.

WHAT DOES IT ALL MEAN

What the Java fight highlights is the frustration within the high tech community with Microsoft dominance of technologies. New versions of Microsoft blend the operating system and the browser so that they are indistinguishable. This reinforces Microsoft's attempt to dominate the PC-Web interface where they are developing sites that only work with Microsoft browsers. Buying WebTV extends this approach to the TV-Web interface. The real question is who will dominate when Internet computing and cable television technologies converge and will Bill Gates own the operating system for a new generation of network based digital smart televisions -- what we are beginning to see with Microsoft's investments in WebTV and Comcast cable.

IT² Announcement at AAAS

Anaheim Hilton, Pacific Ballroom
2:30 - 3:30 pm Sunday, January 24, 1998

Meeting requested by David Beier
Briefing prepared by Jim Kohlenberger

EVENT

You are speaking to an audience of about 2000 at the annual meeting of the American Association for the Advancement of Science to announce a $366 million new initiative for long-term information technology research that will strengthen America's leadership in an industry that accounts for one-third of our economic growth, create high-tech high-wage jobs, and improve our quality of life. You will also announce an extension of the Research and Experimentation tax credit estimated to be worth $2.4 billion. The audience for this OPEN PRESS event is made up of a broad range of scientists, several hundred working press (almost all of whom are print journalists) as well as government scientists.

LOGISTICS (As of this writing, subject to change)

- You are meeting and greeting about 20 leaders from the Association (see attached list)
- There will be an off-stage announcement of you accompanied by Rita Colwell, Director, National Science Foundation, Dr. Neal Lane, Director, OSTP, and M.R.C. (Mary Rita Cooke) Greenwood.
- Rita Colwell, Director, National Science Foundation, delivers brief remarks and introduces Neal Lane, Director of OSTP.
- Neal Lane deliver brief remarks and introduces MRC ("Marcie") Greenwood, President of the American Association for the Advancement of Science.
- MRC Greenwood makes brief remarks and introduces you.
- You deliver remarks, work a ropeline and depart.

YOUR ROLE/CONTRIBUTION

- This event provides a unique opportunity to celebrate the remarkable achievements of American science and technology and announce a major new information technology initiative that will build on your past record in this area from when you first coined the term "Information Superhighway" to you authorship of the High Performance Computing Act. This event also allows you to.

talk about 1) harnessing the economic power of science and technology to sustain our economy, 2) ensuring that with these new opportunities come the responsibilities of ensuring our newest breakthroughs don't thwart our oldest values, and 3) making sure that everyone can benefit from the latest innovations.

PROGRAM NOTES

- **Information Technology Initiative.** You are announcing a $366 million new information technology initiative that will invest in long-term, fundamental research in computing and communications, and will increase development and purchases of extremely fast supercomputers to support a broad range of research and development. This announcement builds on your long history of support for IT research and authorship of the High-Performance Computing Act of 1991. Long-term information technology research will strengthen America's leadership in an industry that accounts for one-third of our economic growth, create high-tech high-wage jobs, and improve our quality of life.

  This research may also lead to breakthroughs such as: computers that are easier to use, including by people with disabilities; high-speed wireless networks that can bring telemedicine to rural communities; the successor to the transistor; and software that is much more dependable and reliable. High-speed supercomputers will allow scientists and engineers to develop life saving drugs more rapidly, provide earlier warnings for tornadoes and design more fuel efficient safer automobiles. The initiative will also provide for fundamental research that could lead to major breakthroughs in the next generation of supercomputers, networks and applications -- research that , without federal support, would not otherwise be funded. (See attached fact sheet)

- **R&E Credit.** To keep innovation growing, we also need private sector investment. You will also announce the extension of the Research and Experimentation tax credit for one year, at a cost of $2.4 billion. The R&E credit helps stimulate additional private sector investment in research and development (See attached fact sheet)

- **AAAS.** The annual meeting of the AAAS is the largest scientific gathering in the world. There are approximately 5000 registrants for the meeting, primarily academic researchers. The AAAS has about 150,000 members and over 280 affiliated organizations.

  - **You Spoke to AAAS Three Years Ago in Baltimore.** Your AAAS speech was a part of a technology trilogy -- three back to back speeches on the future of science and technology. In the AAAS speech, you spoke about the migration of metaphors during the scientific revolution and the lack of migration today. You offered your metaphor of distributed intelligence for today and criticized the shortsightedness of Congress on

Science policy for tomorrow. In making the case for a science policy that moves us forward, you concluded your speech with a series of things we don't know -- like how and why cells dies, and how old is the universe as examples of the challenges ahead. What is surprising in the last three years is how far science has come in answering these questions.

- **The President Spoke to the AAAS Last Year.** In the speech he announced that he intended to nominate Neal Lane as head of OSTP, and Rita Colwell (past AAAS President) as director of NSF. The President spoke on the 150th anniversary of the AAAS and pondered where science might take us over the next 50 years. He also mentioned the 21st Century Research Fund and released new Treasury data that predicted our cigarette tax and tobacco proposal would cut teen smoking by half over the next five years. He also challenged them to take responsibility particularly in the wake of the cloning of Dolly the sheep.

- **The R&D Budget.** Last year we proposed the largest commitment to key civilian research in the history of our country as part of the 21st Century Research Fund. Congress then agreed to support significant increases in R&D, including: an 8.8 percent increase in support for science and engineering research at NSF; a 14 percent or $1.9 billion increase at NIH to support greater research on diabetes, cancer, genetic medicine, and the development of an AIDS vaccine; and more than $100 million for the Next Generation Internet.

  This years budget, to be released on February 1st, will mark the seventh straight year that the President has proposed increases in R&D. The budget proposes an increase for the 21st Century Research Fund of $1.2 billion or 3 percent.

ATTACHMENTS

- Attendees for Meet and Greet
- Fact Sheet on Information Technology Initiative
- Fact sheet on R&E Credit
- Gore record on IT
- Remarks

Meet and Greet Attendees

AAAS Officers and Board of Directors

M.R.C. ("Marcie") Greenwood, President, AAAS. MRC Greenwood is introducing you. She used to work in the White House as Assistant Director for Science at OSTP under Jack Gibbons. She is currently Chancellor at U.C. Santa Cruz.

Stephen Jay Gould, Harvard University and AAAS President-Elect. Harvard Professor of Paleontology and author of many best selling books in science. His most recent book is Dinosaur in a Haystack: Reflection in Natural History.

Lewis M. Branscomb, John F. Kennedy School of Government. Former Vice President of IBM Corporation and Harvard Professor.

William T. Golden, AAAS Treasurer. Wall street investor and former chair of the American Museum of Natural History.

Robert D. Goldman, Northwestern University Medical School. Professor of Molecular Biology and co-founder of Woods Hole Marine Biology lab.

Mary L. Good, University of Arkansas, Little Rock. Former Undersecretary of Technology at Commerce in our administration. Former Vice President of Allied Signal Corp.

Marcia C. Linn, University of California, Berkeley. Science Education Specialist and wife of the Director of the Lawrence Livermore Nationa Lab.

Michael J. Novacek, American Museum of Natural History. Vice President and Provost of the museum and author of the best selling book on exciting dinosaur egg discoveries in the Gobi Desert.

Richard S. Nicholson, Executive Officer and Publisher, Science Magazine

Lois Nicholson, Former High School Physics and Chemistry teacher

Neena G. Schwartz, Northwestern University. Professor Emeritus on Neurobiology and this years winner of the Endocrine Society educator of the year.

David Shaw. David E. Shaw, member of the President's Committee of Advisors on Science and Technology (PCAST), is the chairman and chief executive officer of D. E. Shaw & Co., Inc., a global investment band whose activities center on various aspects of the intersection between technology and finance. He also serves as chairman of Juno Online Services, L.P., the nation's second largest online service, and of Schrodinger, Inc., a provider of computational chemistry software. He is an advocate for greater research investments for educational technology research.

Jean E. Taylor, Rutgers University. Professor of Mathematics and President Elect of the American Society of Women in Mathematics.

Sally Gregory Kohlsted, University of Minnesota. Professor of History and Science and author of several books on the history of the AAAS.

Administration Officials

Neal Lane, Dir. OSTP
Rita Colwell, Director, National Science Foundation

INFORMATION TECHNOLOGY FOR THE TWENTY-FIRST CENTURY: A BOLD INVESTMENT IN AMERICA'S FUTURE

- As part of their FY2000 budget, President Clinton and Vice President Gore are proposing a $366 million, 28 percent increase in the government's investment in information technology research.

- This initiative, known as IT^2 (Information Technology for the Twenty-First Century), will support three kinds of activities:

  - **Long-term information technology research** that will lead to fundamental breakthoughs in computing and communications, in the same way that government investment beginning in the 1960's led to today's Internet;

  - **Advanced applications** and the supercomputers, software, and networks needed to support these applications --such as reducing the time required to develop life-saving drugs; designing cleaner, more efficient engines; and more accurately predicting tornadoes; and

  - **Research on the economic and social implications of the Information Revolution**, and efforts to help train additional IT workers at our universities.

- **Potential Benefits:** The potential benefits of IT^2 are compelling:

  - **For the Economy...** The results of past government research (e.g. the Internet, the first graphical Web browser, advanced microprocessors) have helped strengthen American leadership in the IT industry, which now accounts for 1/3 of U.S. economic growth and employs 7.4 million Americans at wages that are more than 60 percent higher than the private sector average. All sectors of the U.S. economy are using IT to compete and win in global markets, and business-to-business electronic commerce in the U.S. alone is projected to grow to $1.3 trillion by 2003.

  - **For the way we live...** Information technology will change the way we live, work, learn, and communicate with each other. Advances in IT can improve the way we educate our children, allow people with disabilities to lead more independent lives, and improve the quality of health care for rural Americans through telemedicine. U.S. leadership in IT is also essential for our national security.

  - **For Science ...** Information technology will also lead to a "golden age" of science and engineering. Advances in supercomputers, simulation and networks are creating a new window into the physical world --making IT as valuable as theory and experimentation as a tool for scientific discovery. With computers that can make trillions of calculations in a second, scientists and engineers will be able to better predict the impact of climate change, design more efficient and cleaner energy systems, and gain new insights into the fundamental nature of matter.

- The initiative builds on previous and current programs in computing and communications, including the High-Performance Communications and Communications program (authorized by legislation introduced by then-Senator Gore), and the Next Generation Internet, which was authorized by the Congress in 1998. It responds to recommendations made by a private sector advisory committee requested by the Congress (the President's Information Technology Advisory Committee), which concluded that the government was underinvesting in long-term IT research relative to its importance to the Nation. This committee, which is comprised of leaders from industry and academia, concluded that the private sector was unlikely to invest in the long-term, fundamental IT research needed to sustain the Information Revolution. The initiative also reflects a strong belief in the research community about the potential of IT to accelerate the pace of discovery in all science and engineering disciplines.

- The agencies that will be involved in IT^2 include the National Science Foundation, the Department of Defense (including DARPA), the Department of Energy, NASA, the National Institutes of Health, and the National Oceanic and Atmospheric Administration. Roughly 60 percent of the funding will go to support university-based research, which will also help meet the growing demand for workers with advanced IT skills.

- **Potential Breakthroughs**: Some of the potential breakthroughs that may be possible as a result of IT^2 include:

  - Computers that can speak, listen and understand human language, are much easier to use, and accurately translate between languages in real-time;

  - "Intelligent agents" that can roam the Internet on our behalf, retrieving and summarizing the information we are looking for in an vast ocean of data;

  - A wide range of scientific and technological discoveries made possible by simulations running on supercomputers, accessible to researchers all over the country;

  - Networks that can grow to connect not only tens of millions of computers, but hundreds of billions of devices;

  - Computers that are thousands of times faster than today's supercomputers, and are based on fundamentally different technology, such as biological or quantum computing; and

  - New ways of developing complex software that is more reliable and easy to maintain, and can be depended on to run the phone system, the electric power grid, financial markets, and other core elements of our infrastructure.

EXTENDING THE RESEARCH TAX CREDIT: HIGH-TECH JOBS FOR AMERICA

- **Today, Vice President Gore announced that the Administration will propose extending the Research and Experimentation tax credit for one year, at a cost of $2.4 billion:** The R&E credit is currently scheduled to expire on June 30, 1999; the Administration's proposal would extend it to June 30, 2000.

- **The R&E credit helps stimulate additional private sector investment in research and development:** This incentive provides a 20 percent tax credit based on the increase in a firm's research and development.

- **The R&E credit encourages technological advancement, leads to higher productivity, and helps generate new American jobs:**

  - Entirely new industries are created as a result of technological innovation. The credit is helpful for R&D-intensive industries such as the information, communications, and electronics sector. Jobs in the high-tech sector and occupations that use information technology pay 60 -70 percent more than average private sector wages. The credit also benefits major industries such as chemicals, machinery, and motor vehicles.

  - Most research and development dollars are directly invested in the salaries of U.S. employees. The credit is only available for research conducted in the United States.

  - Economists estimate that half of U.S. productivity growth stems from technological advances.

- **Private sector R&D investment also leads to a better quality of life for all Americans**

  - R&D also leads to innovations such as:

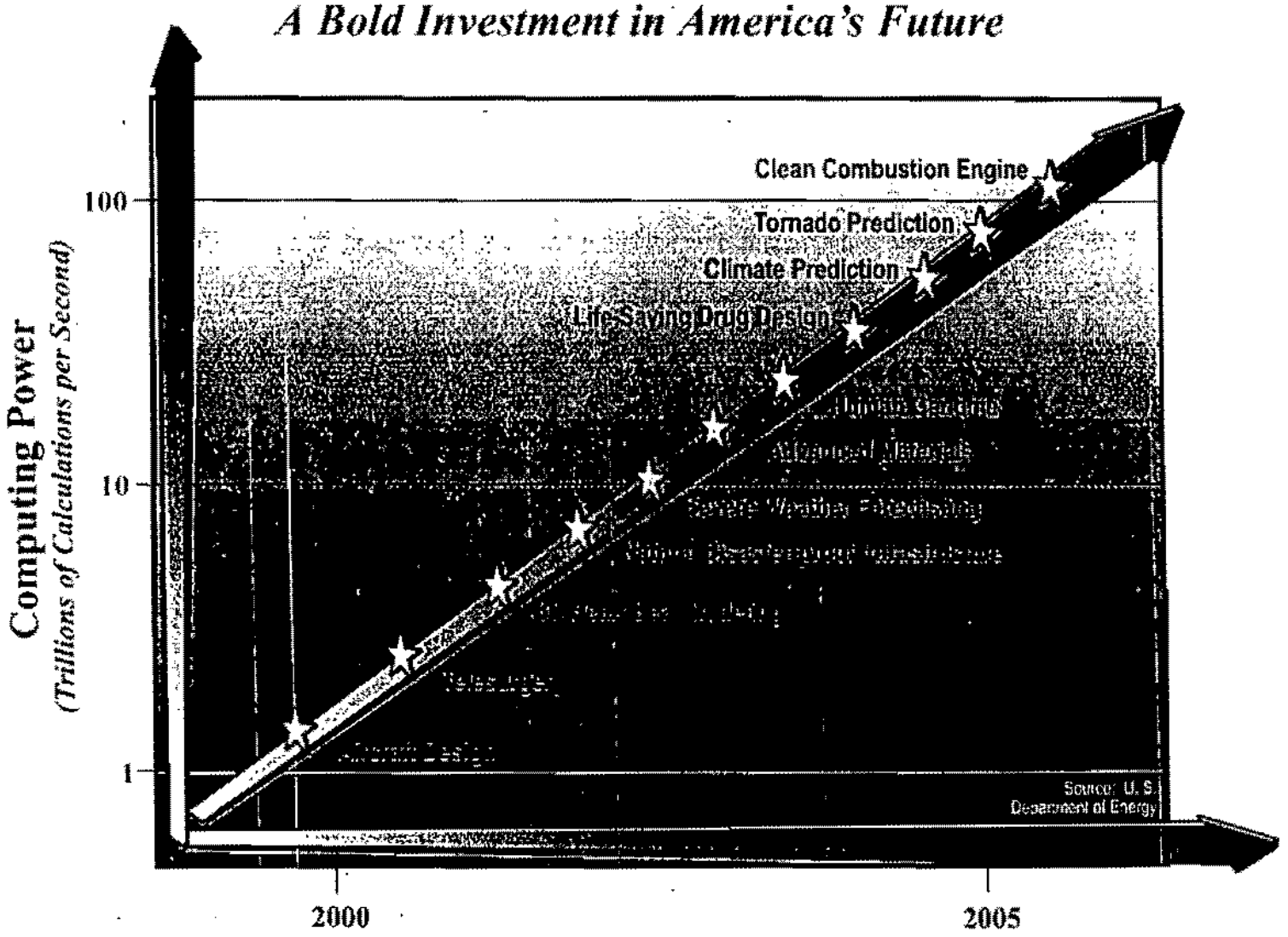
  - New life-saving drugs;

  - A more advanced telecommunications infrastructure, capable of transmitting voice, video and high-speed data; and

  - Cleaner and more environmentally-friendly sources of energy.

Information Technology for the Twenty-First Century

A Bold Investment in America's Future



The President's and the Vice President's Information Technology Initiative will establish by 2005 computing and information technologies 100-1000 times more powerful than available today. Solutions to extraordinarily complex national problems will become routine, providing enormous benefits to society.

VICE PRESIDENT GORE:
LEADING AMERICA IN THE INFORMATION AGE

For decades, Al Gore has worked to lead the America in the Information Age by offering an exciting vision of the potential of information technology, strengthening America's technological leadership, breaking down the barriers to private sector investment and job creation, putting the future at the fingertips of our children, and ensuring that all Americans have an opportunity to make the most of their lives in the Information Age.

- More than 20 years ago, as a member of Congress, he first popularized the term "information superhighway."

- In 1984, he introduced legislation to promote the development and distribution of high-quality, interactive educational software.

- In 1989, he introduced legislation to authorize a coordinated Federal research program in high-performance computing and communications. He re-introduced this legislation in 1991, which was signed into law later that year as the High-Performance Computing Act. This legislation expanded investment in research networks which led to today's Internet.

- In 1993, as Vice President, he unveiled the Administration's National Information Infrastructure agenda. This agenda called for increased competition in the telecommunications market, more dissemination of government information on the Internet, greater allocation of spectrum for new wireless industries, enhanced privacy protection, and pilot projects of non-profit applications of the Internet and information technology.

- In 1994, he set a national goal of connecting every classroom and library in the United States to the Internet. Two years later, the Telecommunications Act of 1996 provided deep discounts to make Internet access affordable for schools and library. With Al Gore's leadership, the Administration increased its investment in educational technology (computers, software, teacher training) from $23 million in 1993 to over $700 million in 1998.

- Also in 1994, he set forth his vision of a "Global Information Infrastructure" at the International Telecommunications Union. His principles are adopted at the G-7, the ITU, the Summit of the Americas, and APEC.

- In 1996, he called for the creation of the Next Generation Internet, which is 1,000 times faster than today's Internet. Legislation authorizing the NGI is passed by the Congress in 1998.

- In 1998, he called for an "Electronic Bill of Rights" to protect personal privacy. Later that year, the Congress passed legislation that the Vice President had championed on identity theft and children's privacy. The Vice President's leadership was also critical in advancing policies to promote electronic commerce, which is expected to grow to $1.3 trillion by the year 2003 in the U.S. alone.

- Today, the Vice President is announcing a new $366 million increase in long-term information technology research, which will strengthen America's position as the global leader in computing and communications, help create the industries and the high-tech jobs of the 21st century, and accelerate the pace of scientific discovery with high-end computers and simulation.

BIGGER paychecks

News

Published Sunday, January 24, 1999, in the San Jose Mercury News

Gore seeks tech funds

Information-technology research may get boost

BY JIM PUZZANGHERA
Mercury News Washington Bureau

WASHINGTON -- Vice President Al Gore today will propose a $366 million increase in federal funding for information-technology research in next year's White House budget, citing the development of the Internet as an example of the economic benefits of investing in high-tech research, administration officials said Saturday.

Gore also will propose a one-year extension of the research-and-experimentation tax credit for private companies, set to expire June 30. The tax credit, estimated to cost the federal government $2.4 billion next year, encourages companies to spend money on research and development. Silicon Valley high-tech officials have been pushing for a permanent extension of the tax credit so it does not have to be approved by Congress and the White House each year.

Gore will unveil the proposals in a speech this afternoon in Anaheim to 5,000 scientists at the annual meeting of the American Association for the Advancement of Science. It's the perfect audience for the announcement about the increase in information-technology research funding -- a 28 percent boost over current levels -- because most of that money will go to scientists working on long-term basic-research projects at universities across the country.

Increase recommended

Last year, the President's Information Technology Advisory Committee recommended a significant increase in government

funding in that area, arguing that high-tech companies can't do the type of high-risk, long-term basic research that leads to advancements decades down the line.

The Clinton administration proposal, to be included in the fiscal year 2000 budget submitted to Congress next month, will be called Information Technology for the Twenty-First Century, colloquially known as IT² (pronounced ``I-T squared.") It's one of a number of announcements Clinton and Gore are making about the president's budget for fiscal 2000, which begins Oct. 1.

Gore has been the Clinton administration's point person on technology and computers, and will be looking to the high-tech industry for support as he seeks the presidency in 2000. He will announce the information-technology and tax-credit proposals as part of a three-day trip through politically important California. Monday, Gore will arrive in San Francisco to talk about education in immigrant communities before heading to the University of California-Davis, where he will participate in a round-table about victims' rights.

In a White House memo outlining the information-technology funding increase, the Internet and the World Wide Web are cited as examples of how federal research funding in the past has led to developments now paying huge economic dividends. The Internet and its precursor were developed in the 1960s by the Department of Defense so university researchers could communicate easier. And the first graphical Internet browser was created earlier this decade at the National Center for Supercomputing Applications at the University of Illinois with the help of federal money.

Looking to future

``A third of all economic growth in the last several years has been due to information technology. Everybody from Wal-Mart to Wall Street is using it," said a senior Gore official who asked not to be identified. ``All these things are in part because of federal investments we made 20 to 30 years ago -- the Internet, the graphical browser. What are the things that 20 to 30 years from now will be driving the economy?"

Among the possibilities, according to the White House memo about the proposal, are computers that can speak, listen and understand human language; ``intelligent agents" that can roam the Internet and retrieve and summarize data; networks that can connect hundreds of billions of devices, and computers that are thousands of times faster than today's supercomputers.

Three areas for funds

The $366 million would be spent in three basic areas:

Long-term basic research into the next fundamental advances in computers and communications. This will encompass about $200 million of the increase.

Research into advanced computers for science and engineering that will focus on applications for a variety of uses, from medical research to weather forecasting.

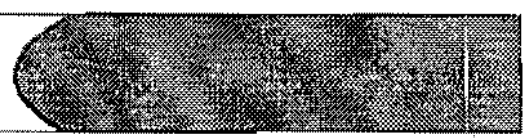
Exploring the economic and social implications of the explosion of information technology. Funding in this area will go to study potential ethical issues involved with the advances in computers. One of the major concerns is privacy as more personal information is available on the Internet and in commercial and government databases.

The program is similar to one that was tied to funding for the Human Genome Project, which is trying to decode human DNA. As an offshoot, some of the money in this area will also go to helping train new information-technology workers at American universities.

Funding will be doled out by several government agencies, ranging from the Department of Defense to the National Institutes of Health to the National Oceanic and Atmospheric Administration. About 60 percent of the money will go to university-based research, according to the White House.

While Republican leaders in Congress have been hesitant to support increases in federal spending, they have generally been supportive of funding for information technology, given its role in the U.S. economy, the Gore official said. For that reason, the Clinton administration believes the increase will be well-received in Congress.

BIGGER.



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Administration to Seek $366 Million More for Technology Research

By Ceci Connolly
Washington Post Staff Writer
Sunday, January 24, 1999; Page A05

Vice President Gore, continuing the administration's public relations buildup for the new federal budget, plans to unveil today a proposal to increase technology research by $366 million.

The 28 percent increase in information technology spending would be divided among government agencies such as NASA and the National Institutes of Health and universities that pursue advances in computing and communications technology. Some of the money would also be spent studying the ethical implications of emerging technology, such as privacy issues on the Internet.

Gore, a computer-literate baby boomer who often communicates by e-mail, is to announce the proposal today at a meeting of the American Association for the Advancement of Science in Anaheim, Calif.

His staff released details of the plan yesterday as part of the White House's finely tuned system of leaking attractive proposals before the entire fiscal 2000 budget request is submitted to Congress next month.

As Gore shifts into the role of presidential candidate, President Clinton has been turning over more of the budget fanfare to his loyal No. 2. The budget goodies are an easy way for Gore to please core constituencies and raise his profile on economic issues. Two weeks ago, Gore touted $10 billion in "Better America Bonds" to help communities manage traffic congestion, clean up the environment and protect open space.

Under the administration plan, technology spending for the first time would be collected under a single umbrella, a Gore adviser said.

The money would cover three types of research: basic computing and communications breakthroughs; applications for new technology such as compressing the development time for drugs or more accurate weather forecasting; and the social and economic implications of new technology.

Gore's aides said the new spending, which would have to be approved by Congress, could lead to computers that can "speak" English, networks that can connect "not only tens of millions of computers, but hundreds of billions of devices," and improved health care for rural communities through "telemedicine."

Today's announcement to a conclave of 5,000 scientists is also part of Gore positioning himself as the candidate of the 21st century.

"For decades, Al Gore has worked to lead America in the information age by offering an exciting vision of the potential of information technology," the release from his office said.

Gore also announced 18 California counties have been designated disaster areas because of freezing. This is the vice president's first California swing of the year; last year he made a dozen trips to the state, which is moving up its presidential primary to March 7, 2000.

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Genentech Research Announcement

Genentech, South San Francisco
1:15 pm - 3:15 pm, Thursday, January 29th, 1998

Meeting requested by Jim Kohlenberger
Briefing prepared by Jim Kohlenberger

EVENT

You are visiting Genentech to demonstrate how we are creating new high-wage jobs in the new economy by investing in research and technology. Specifically you are announcing a new commitment to research and innovation by releasing the details of the new $31 billion 21st Century Research Fund for America. You are also announcing a one year extension of the R&D tax credit. This two part announcement demonstrates how we are unleashing the innovative spirit in America by supporting both university and private sector based research and creating good high-wage jobs well into the next century. You are touring this state of the art research facility, making your announcement, and then in a reverse town hall format, engaging an audience made of employees who owe their jobs to the R&D credit, university researchers, student researchers from local universities, and representatives of other companies that benefit from the credit.

For Genentech, the R&D tax credit means more than the 150 jobs that the R&D credit supports. It also means they will be able to continue work on promising new drugs. Additionally, Genentech's more than 3,000 employees are representative of the kind of good high-wage high-skill jobs that we create when federal investements lead to new breakthroughs, like the discovery of DNA, that create entirely new industries.

LOGISTICS (As of this writing, subject to change)

- Art Levinson, CEO of Genentech, will greet you upon arrival as you proceed to hold.
- You will then join, Art Levinson, Senator Boxer, Congressman Lantos on a two stop tour of the protein laboratory (description below).
- You will be introduced by Art Levinson, CEO of Genentech, and make brief remarks from a podium.
- After your remarks you will proceed to a stool in the middle of the room and engage in a reverse town hall where you ask questions of program participants. The best stories will be in the front row.

YOUR ROLE/CONTRIBUTION

- This event gives you the opportunity to 1) demonstrate how we are creating new high-wage jobs in the new economy by investing in research and technology, 2) announce the R&E tax credit extension, 3) release details of the 21st Century Research Fund.

PROGRAM NOTES

- **21st Century Research Fund:** You are announcing new details of the new 21st Century Research Fund. This initiative would substantially increase investment in civilian research and development. In FY99, the Research Fund would provide the largest increases in history for the National Institutes of Health ($1.15 billion --or 8.4 percent) and the National Science Foundation ($344 million -- or 10 percent). Overall, the fund will increase by 32 percent by 2003. This will lead breakthroughs such as new cures for life-threatening diseases, new missions to explore the solar system, cleaner sources of energy, and the Next Generation Internet. It will also strengthen America's scientific and technological leadership, boost productivity, and create the kind of high-wage jobs that have been created at Genentech.

- **R&D Credit.** You are announcing a one year extension of the R&D (Research and Experimentation) Tax Credit worth $2.2 billion. For nearly two decades, the R&D credit has rewarded innovation, entrepreneurship and investment in the future; all essential ingredients to an increased standard of living for U.S. workers.

  Background: Since it was first introduction in 1981, the R&D credit has been extended eight times. The credit's value is based on the annual increase in a company's R&D spending relative to a historically determined base level. The Credit is set to expire on June 30, 1998. This 20 percent research and development writeoff has been taken annually by more than 3,000 firms, which saw the credit expire once before only to be revived retroactively. Although many in the high-tech community had supported a permanent extension of the R&D credit, this commitment to a one-year extension avoids the problems we had just a few years ago when Congress let it expire. Last week Coopers & Lybrand released a new study that shows that the R&D credit stimulates U.S.investment, innovation, wage growth, consumption, and exports, all contributing to a stronger economy and higher standard of living for American workers.

- **Genentech.** Founded in 1976, Genentech has grown rapidly, now employing over 3,200 people. From the beginning, Genentech has depended heavily on scientific research. The company spends approximately forty-seven percent of its revenues on R&D - high by the standards of any industry. Genentech also encourages scientists to spend as much as twenty-five percent of their time on

research of their own choosing, a policy that has led to some of Genentech's most important discoveries. The company holds more than 2,900 patents worldwide, and has another 1,900 pending.

About Genentech. Genentech uses human genetic information to develop, manufacture and market pharmaceuticals that address significant unmet medical needs. Genentech manufactures and markets seven products in the U.S. Genentech now boasts nine potential new products in the final stages of development. Several are potential blockbusters including an easy to use form of human growth hormone, a designer drug for breast cancer and a novel asthma treatment. They also make drugs for heart attacks, stroke treatment, cystic fibrosis and more.

- **Tour of Protein Laboratory.** On your tour of this research facility, the world's largest research center devoted solely to biotechnology, you will visit a large room full of gleaming stainless steel tanks and pipes, all attached to computer monitoring equipment. You will see a pilot plant fermentation tank and associated operations.

For a biotech product, it takes two discoveries to be succesful:

- First, you have to find a molecule that affects a disease state.
- Second, you have to be able to make the protein in a large enough volume to supply commercial use.

Genentech has made two great leaps with regard to the manufacturing process:

- ✓ It was the first company to ferment E.coli, a one-cell organism which is the host cell or factory for growth hormone and insulin.
- ✓ It was also the first company to ferment mammalian cells, through Chinese hampster ovary cells, to make more complex proteins such as tPA and pulmozyne.

Without these process advances (one of which will be on display), Genentech could not make its products. All of these processes you will see were invented at Genentech.

- **Federal Support for R&D.** There has been a long record of succeful government support for R&D, from its support of Samuel Morse's original telegraph line from Washington to Baltimore in 1842 to demonstrate the feasibility of his new technology, to the development in more recent years of the Internet, Global Positionin Satellite (GPS) System, and support of basic research leading to the discovery of the DNA. Lasers (now in CD players) and transistors (now reaching 5 million on a Pentium chip) are now part of everyday life. In each

case, what was basic research has led to thousand of new jobs and entire new industries.

- **Audience Participants.** The audience is made up of a combination of Genentech employees, other companies, student researchers, a venture capitalists and a Nobel Prize winner who can help you tell both the R&D credit story and the 21st Century Research Fund story. More specifically the audience includes 100 to 150 Genentech employees who owe their jobs to the R&D tax credit. There are also representatives in the audience of a couple of other companies who also benefit from the R&D credit and whose companies are spinoffs from federally sponsored university-based research. As for grad student researchers, there are some medical students from UCSF who can talk about the importance of federal support in allowing them to pursue careers in medical research, some grad students from UC Berkeley who can talk about the importance of federal support in allowing them to pursue careers in environmental energy technologies, and possibly some grad students from Stanford who are supported by NSF funding that allows them to pursue research careers.

ATTACHMENTS

- Talking Points
- 21st Century Fund Backgrounder
- R&D Credit Backgrounder
- Possible questions for participants

THE BENEFITS OF FEDERAL SUPPORT FOR R&D

Participants in Discussion

ARTHUR D. LEVINSON, President and CEO, Genentech, Inc.

Art Levinson is unusual among corporate leaders for being a research scientist. A cancer researcher with a doctorate in biochemistry and degrees in molecular biology and chemistry, he personally holds more than 100 patents. Before joining Genentech, he served with NIH Director Harold Varmus as a postdoctoral fellow from 1977-80 at the University of California, San Francisco. Under his leadership, Genentech has increased its commitment to R&D, investing nearly half of the company's revenues in 1996 and 1997, and obtaining FDA approval for significant breakthrough treatments for stroke, cystic fibrosis, and cancer.

DIANE PENNICA, Senior Research Scientist, Genentech, Inc.

Diane Pennica is a molecular biologist and co-discoverer of the breakthrough product t-PA, a clot-buster used to treat heart attacks and stroke. Currently she is working in Genentech's molecular oncology department, investigating the processes that lead to the development of colon cancer and breast cancer in order to develop new treatments for these diseases.

BROOK BYERS, Partner, Kleiner Perkins Caufield & Byers, Menlo Park, CA

Brook Byers has been a venture capital investor since 1972 and has been closely involved with more than 40 new science-based companies, over half of which have already become public companies. He has helped Kleiner Perkins become one of the leading venture firms in the medical, health care services, and biotechnology fields. He also has worked with a variety of information technology companies. He is a director of more than a dozen companies and is a contributing author to the book *Guide to Venture Capital*. He received an MBA from Stanford.

J. MICHAEL BISHOP, University of California, San Francisco

Mike Bishop is a cancer researcher and the winner of the Nobel Prize for Medicine in 1989 with Harold Varmus – for demonstrating that cancer genes can arise from normal cellular genes – when they were both at the University of California, San Francisco. He is the Director of the G.W. Hooper Research Foundation and of the UCSF Program in Biological Sciences. He is a member of the National Academy of Sciences and chairman of the National Cancer Advisory Board.

JOHN L. HENNESSY, Dean, School of Engineering, Stanford University, Palo Alto

John Hennessy is both dean of engineering and a professor of electrical engineering and computer science at Stanford. In 1981 he initiated a research project in high-performance computer technology, and he later played a key role in transferring this technology to industry. During a sabbatical leave from Stanford in 1984-85, he cofounded MIPS Computer Systems (now part of Silicon Graphics), which specializes in the production of computers and chips based on these concepts. He has also assisted in moving other technologies out of the lab and into commercial products. Most recently, he has been involved in FLASH (FLexible Architecture for Shared Memory), which is designed to support different communication approaches in large-scale shared-memory multiprocessors.

DEXSTER SMITH, President, Pangea Systems, Inc.

Dexster Smith is President of Pangea Systems, Inc., a leader in the emerging field of bioinformatics - the application of advanced computer science to biological research. Headquartered in Oakland, Calif., the privately held company was founded in 1991 to provide software systems to simplify and accelerate drug discovery. He is an expert in systems integration, Internet technologies, and the application of engineering principles to the drug discovery process. He has a degree in industrial engineering from Stanford.

Questions for Genentech Event

ART LEVINSON - CEO

- Why is biotech such as R&D-intensive industry, and what does the R&D credit mean for Genentech?

GENETECH EMPLOYEES

- How many people owe their jobs to the R&D tax credit?
- What impact are Genentech products starting to have on the lives of real people?
- Is there anyone here who can tell a personal story about how this job has allowed them to support their family?

MICHAEL BISHOP - NOBEL PRIZE WINNER

- What are the areas of research that you think companies may not have an incentive to fund on their own - and that need to get done by government-supported university researchers?

GRAD STUDENTS/RESEARCHERS

- How can we motivate more students to pursue careers in science and engineering?
- Are there any example of jobs or industries that have been created because of research?
- Does being involved in a research project as a grad student make your more attractive to high tech companies?

BROOK BYERS

- As a successful venture capitalist, you've helped create dozens of start-ups and thousands of new jobs. What role do you see for federal research in terms of generating new ideas and training the technical talent of the new companies that you finance?

JOHN HENNESY - DEAN OF STANFORD ENGINEERING

- John, you are one of the country's leading computer science researchers, and you've also been involved in some start-ups. What role has government-supported research played in the success of the U.S. computer industry? What do you see as some of the most promising research directions for the future?

DEXSTER SMITH

-

SENATOR BOXER

- I know that you've been a strong supporter of both the R&D tax credit and government support for R&D. What do you think the mood is in the Senate on these issues - and how can we get more Senators engaged in these issues?

CONGRESSMAN LANTOS

- Congress has to pass both the 21st Century Research Fund and the R&D credit. What's the situation like in the House on these issues?

Draft January 28, 1998 7:00 p.m.

EXTENDING THE RESEARCH TAX CREDIT: HIGH-TECH JOBS FOR AMERICA

- **Today, Vice President Gore announced that the Administration will propose extending the Research and Experimentation tax credit for one year, at a cost of $2.2 billion:** The R&E credit is currently scheduled to expire on June 30, 1998; the Administration's proposal would extend it to June 30, 1999.

- **The R&E credit helps stimulate additional private sector investment in research and development:** This incentive provides a 20 percent tax credit based on the increase in a firm's research and development.

- **The R&E credit encourages technological advancement, leads to higher productivity, and helps generate new American jobs:**

  - Entirely new industries are created as a result of technological innovation. The credit is helpful for R&D-intensive industries such as the information, communications, and electronics sector, which employs more than 4.2 million Americans at wages that are 73 percent above the private sector average. It also benefits major industries such as chemicals, machinery, and motor vehicles.

  - Most research and development dollars are directly invested in the salaries of U.S. employees. The credit is only available for research conducted in the United States.

  - Economists estimate that half of U.S. productivity growth stems from technological advances.

- **Private sector R&D investment also leads to a better quality of life for all Americans**

  - R&D also leads to innovations such as new live-saving drugs, a better telecommunications infrastructure, more productive factories, and cleaner sources of energy.

Draft January 28, 1998

The 21st Century Research Fund
Preparing America for the 21st Century

- **Investing in research is critical to America's future:**

  - Economists estimate that half of U.S. productivity growth stems from technological advances.

  - High-tech, knowledge-intensive industries are playing a greater role in economic growth, job creation, and exports. In 1996, high-tech industries (information, communications, electronics) employed more than 4.2 million Americans at wages that are 73 percent above the private sector average.

  - Government-supported research is critical to U.S. technological innovation. 73 percent of the main science patents cited by American industrial patents were based on research financed by government or non-profit agencies.

  - Increased R&D will lead to scientific advances and breakthroughs such as cures for deadly diseases, cleaner sources of energy, and new insights about the solar system. Whole new industries that spring up to commercialize new technologies that are developed.

- **The 21st Century Research Fund will lead to major, sustained increases in a wide range of civilian science and technology investments**

  - The Fund would grow from $31 billion in 1999 to $38 billion in 2003.

  - This is an increase in these programs of 8 percent over 1998 and 32 percent by 2003.

  - The Fund is the centerpiece of the Administration's research and development budget. It supports civilian research investments, but does not include defense R&D or major development programs.

- **Highlights of the 21st Century Fund include:**

  - **National Institutes of Health (NIH).** The Fund provides a $1.15 billion increase for NIH, the largest ever, to a proposed $14.8 billion agency funding level that will support greater research on diabetes, brain disorders, cancer, drug demand reduction, genetic medicine, disease prevention strategies, and the development of an AIDS vaccine. By 2003, the NIH budget would increase 50 percent, to $20 billion.

- **National Science Foundation.** The Budget provides $3.7 billion, 10 percent more than in 1998, for NSF, whose broad mission is to promote science and engineering research and education across all fields and disciplines. The $344 million increase is NSF's largest ever.

- **National Aeronautics and Space Administration (NASA).** The Fund supports various ongoing activities, including: $2.1 billion for Space Science -- a three percent increase over 1998, leading to more robotic exploration of the solar system.

- **Department of Energy (DoE).** The Fund provides $2.7 billion for DoE's science research and nuclear fusion programs, for construction of the National Spallation Neutron Source, and for the international partnership on the Large Hadron Collider. The Fund also includes funds for DoE research under the Climate Change Technology Initiative.

- **Department of Commerce (DoC).** The Fund provides $851 million for the National Institute of Standards and Technology (NIST) Advanced Technology Program, construction of an Advanced Measurement Laboratory on the NIST campus in Gaithersburg, Maryland, and Oceanic and Atmospheric Research activities. The Advanced Technology Program will increase from $182 million in 1998 to $399 million by 2003.

REMARKS BY VICE PRESIDENT AL GORE
COUNCIL ON COMPETITIVENESS INNOVATION SUMMIT
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Friday, March 13, 1998

It's great to be back with the Council on Competitiveness, and it's great to be back at MIT. I was honored to deliver the commencement address here two years ago. And I always enjoy returning to Cambridge, where I spent so many happy days as a student at a school down the road.

I recall that the last time I delivered a formal address at MIT was when I had the honor of speaking at commencement a couple of years ago. I'm reminded that, on that occasion, I told the story of how MIT's founder returned in 1882 to deliver the commencement address and dropped dead while delivering his speech. As terrible as that is, I was comforted by the thought that no matter how poorly I did, I would only be MIT's second stiffest commencement speaker.

* * * * *

Let me say how grateful I am to the Council on Competitiveness -- not just for convening this critical national summit, but also for your important work, all year long, in helping us to understand the dramatic changes taking place in our economy and society. As someone with a longtime interest both in innovation and in its considerable economic benefits, I've followed the Council's work very closely since its founding a dozen years ago. And I am convinced that only by bringing together business, labor, academia, and government at all levels -- only by mobilizing everyone with a stake in our economic future -- can we truly make the most of this moment in our history. This is an impressive gathering -- and a necessary one as well.

It's no exaggeration to say that we meet at the dawn of a true Innovation Age. Consider these facts: it's estimated that the entire store of human knowledge now doubles every five years. For example, we are just a few years away from the complete sequencing of the human genome -- giving us, for the very first time, the full instruction manual for the human body. Within a couple of years, microchips will routinely contain one billion transistors per chip, the size of a fingernail -- and the patterns etched onto them will be as complicated as a roadmap of the entire planet. Within six months, a brand new low-earth orbiting systems will make it possible to make a cell phone call from any point on the earth's surface to any other point -- other systems will soon follow. And within three years, we will be able to have wireless Internet access from anywhere on Earth. We are on the verge of fulfilling Hawthorne's vision in the middle of the last century. Fifteen years after the invention of the telegraph he wrote, "By means of electricity, the world of matter has become a great nerve, vibrating thousands of miles in a breathless point of time . . . the round globe is a vast . . . brain, instinct with intelligence!"

Often, it is easy to chart the exact benefits of a new breakthrough -- to our health, to our hard disk drives, to our pocketbooks. But today, I want to talk about innovation in a broader context. I want to talk about innovation not merely as a material goal, but as an <u>ethic</u>, as a

constant concern. MIT's motto -- "Mens et Manus," mind and hand -- sums up this challenge. True innovation encompasses not only the labor of our hands, but also the labor of our minds. If America industry is to keep growing and thriving, we must be willing to think and act anew -- to keep pushing the boundaries of knowledge and discovery -- to reshape our economy by redefining the way we view our world.

At a few precious moments in our history, we have literally redefined the way we view our world. More than 500 years ago, Columbus set sail. By discovering the New World, he gave us a new vision of Earth. A century later, Galileo first turned a telescope toward the sky and shattered centuries old-notions about the mechanics of our solar system.

The discoveries of the age of exploration unleashed the greatest explosion of trade and commerce the world had ever seen. New lands brought new ideas -- and the need for new inventions. Europe's contact with other cultures and customs -- while certainly not always mutually positive -- stimulated new thinking in the Old World.

Almost half a millennium after Columbus, we broke free from the grasp of our planet with the Apollo program. Yet one of the most important effects of those missions came not in how we viewed our distant Moon, but in how we viewed ourselves and the planet we call home.

Dominating a wall of my office in the White House just down the hall from the Oval Office -- I call it the Square Office -- is a photograph of our planet taken by the astronauts aboard Apollo 17. For some, it is hard to recall the significance of those first images of Earth from space when they appeared nearly three decades ago. But those images of our planet -- the first time we had ever seen what we looked like from a distance -- had a powerful impact. As the British astrophysicist Fred Hoyle predicted in 1948, "Once a photograph of the Earth, taken from outside, is available -- once the sheer isolation of the Earth becomes plain -- a new idea as powerful as any in history will be let loose." It wasn't until the Apollo missions twenty years later that we found out the truth of that prophecy.

Like a child's first glimpse of herself in a mirror, those photographs from the frosty reaches of space changed our own self-image. We saw a world that was not as vast, expansive, or incomprehensible as we had thought -- but surprisingly smaller, more interconnected, more fragile and communal.

As the great poet Archibald MacLeish wrote after the first of these images, "To see the earth as we see it now, small and blue and beautiful in that eternal silence where it floats, is to see ourselves as riders on the earth together, brothers on the bright loveliness in the unending night -- brothers who see now they are truly brothers." This new image, this new understanding, shifted centuries of human understanding, and brought about dramatic results.

Certainly, such a quantum leap in our worldview does not occur very often. When they do, it often takes decades to know where they will lead. But in spirit, it is little different from the

work many of you do, each and every day -- pushing the ever-expanding boundaries of knowledge and discovery -- creating and innovating for the ultimate benefit of all our people. For, at its heart, what innovation means is looking at the world in new and different ways. Our challenge is to create the right climate for that kind of innovation, both small and large -- and to harness its enormous economic potential in the 21st Century.

We've already come a long way. With help from so many of you, we are building a new economy -- one that is takes innovation as its starting point, not a mere by-product. The new economy is driven by innovation -- information and technology are its fuels. The new economy values the productivity and creativity of our people above all else. The new economy is connected to the global marketplace -- where we zap dollars and data around the world at the speed of light.

Today, the American economy is once again the envy of the world. Interest rates and inflation are at record lows. Investment and modernization are rising. We have 15 million new jobs, and the lowest unemployment in a generation.

Today, a full third of our GDP growth now comes from information technology. Our fast-growing environmental technology industry is already bigger than our steel, textile, or aerospace industries. More Americans build semiconductors than construction machinery. More Americans spend their days processing data than refining petroleum. More Americans make computers than make cars.

Perhaps more importantly, today there is far less difference between the two. Open up a car today and it doesn't look a lot different than most computers. In fact, today's Ford Taurus has more computing power than the Apollo landing capsules that landed on the Moon. And those that build those cars do so in ways that emphasize quality, performance, and innovation.

* PAPERLESS 777

* TELESCOPING LEAD TIME FOR NEW CAR DEVELOPMENT, FROM 7 to 5 to 3...HEADED FOR 1

* BIG THREE -- EXTRANET -- PNVG

Clearly, we are becoming not just an Information Society, but an <u>Innovation</u> Society as well. In the old economy, growth depended largely on capital and labor. Now, as the economist Paul Romer -- whom I met with just yesterday -- has argued, the true engines of growth are ideas and the technologies they create. Romer and others are teaching us that innovation is not something that happens <u>outside</u> the economy, as traditional economic theory had held. Innovation occurs <u>inside</u> the economy -- and it is essential for economies to grow. Ideas build on one another and each one opens the door to a thousand new roads of innovation.

Though we've had computers for a long time, we are just now seeing the convergence of technology which lets us use them to their full potential. We know from history that sometimes for innovations to bring about productivity gains organizations must adjust to new circumstances. During the Industrial Age, the effects of new electric motors took time to show results in productivity. Part of the reason was that our factories were still constructed in a vertical fashion in order to take advantage of obsolete steam energy. But once we rethought the way our factories worked and flattened them out; once the architecture and infrastructure was in place to use electric motors, the results in productivity were astounding.

And the similarities between that time and our present transformation run deep. The steam factories relied on centralized power emanating from a single source. These factories were replaced when alternating currents allowed us to distrbute energy over long distances enabled us to distribute power -- and when electric motors enabled us to distribute sources of mechanical energy throughout a factory. So too today, the old top-down organizations which relied on hierarchies and a centralized source of intelligence and decision-making are being replaced by distributed intelligence. Today's technology is allowing us to tap a higher fraction of the potential of our people; allowing us to reach those who, in previous years, would have been left out of the world of innovation. We never know where we will find the person responsible for the next great scientific or intellectual breakthrough. It could be a janitor right here at MIT!

There is simply no question that if we want to make the most of the 21st Century, and the new economy -- if we want to achieve the full promise of American business -- we must do everything we can to fuel new innovation and discovery. We must build partnerships that encourage, support, and reward cutting-edge ideas -- and keep our economy strong enough and efficient enough to take advantage of them right away.

As far as I'm concerned, we can never do enough to promote innovation -- and for me, that had been a long crusade. As a Congressman, I co-authored legislation that created the Small Business Innovation Research initiative, which helps America's small businesses turn new technologies into new products. I also sponsored legislation which provided some of the earliest funding for developing the Human Genome Project and the Internet. And over the past five years, thanks to President Clinton, we've done an enormous amount to encourage innovation. Today, the facts are clear: for a quarter of a century, and for most of the 1980's, the number of patent applications for inventions filed by Americans hovered between 60,000 and 70,000 a year. The past few years have seen that number rise above 100,000. Similarly, we have increased the number of patent awards by 50% from the early 1980's.

We plan to seize that promise by continuing the bold new economic strategy with which we have kept pace with the new economy: eliminating the deficit; opening foreign markets to our products; and investing more in America's future.

First, we will balance the budget, and we will do it this year. The budget the President just proposed to Congress takes a deficit that used to have eleven zeroes and makes it, simply,

zero. Especially for young industries with little immediate revenue and extensive research and development needs, it is critical to free up large and steady supplies of capital. Companies shouldn't have to compete in credit markets with an 800-pound gorilla named Uncle Sam -- so we put Uncle Sam on a strict diet of fiscal discipline. By making tough choices based on hard numbers, we have freed up hundreds of billions of dollars in capital to finance private investments.

There is another reason for our emphasis on deficit reduction. Forget about the gold standard; the new economy operates on the information standard. Financial markets around the world make decisions about a government's fiscal policies every day through millions of transactions: and the future implications of policy changes are judged and acted upon in the present. If financial markets see a fiscal train wreck coming, they don't wait for the crash to get out of the railroad business. Likewise, by taking a responsible approach -- by rejecting second-hand smoke and rear view mirrors -- we have earned a premium. Investment capital has flowed to our shores, and will continue to flow to the innovators and entrepreneurs in our economy.

The second component of our economic strategy is to keep opening markets for American products overseas -- to reach the 96% of the world's consumers who live outside our borders. We've already signed more than 200 new trade agreements in the past five years. And increasingly, we are seeing our geopolitical relationships defined not by military conflict, but by economic cooperation.

The third part of our economic strategy is making targeted investments in the future. To fill the high-brainpower jobs in biotechnology and information technology, we need more education, more job training, and more computers in our classrooms and schools. That is why education is our number-one priority -- and that is why we fought for and won the largest increase in education opportunity in 30 years.

Of course, while investing in the future means teaching about old discoveries, it also means making new ones. Even as we have shrunk the deficit, we have increased NIH funding every single year. Now we are proposing a new 21st Century Research Fund for path-breaking scientific inquiry -- the largest investment in civilian research and development in American history. And this fund will include the largest ever increases in the budgets of the National Institutes of Health and the National Science Foundation. We are investing not just in targeted research, but also in the undirected research that often yields the biggest long-term gains -- and often would not occur without federal investment. Of course, it takes private sector investment as well. That's why we have proposed an extension of America's $2.2 billion Research and Experimentation tax credit, which is critical to our most innovative industries.

Part of our strategy of promoting innovation has been unshackling the dynamism of the new economy from the heavy hand of old government thinking. We are fighting hard in Congress to streamline the patent law and make the patent office a truly performance-based organization with increased flexibility and a focus on results. We cut 350,000 government

workers to give us the smallest federal government -- as a percentage of the workforce -- since the New Deal. We eliminated 200 outdated government programs, slashed more than 16000 pages of red tape, and saved he American people $137 billion. We not only made government smaller, we made it better and more effective for those it should serve.

We are paying special attention to the growth and development of the Internet. We have an aggressive strategy to foster electronic commerce. Trade and commerce on the Internet are now doubling or tripling every year -- and in just a few years will be generating hundreds of billions of dollars in sales of goods and services. We want to establish an environment in which electronic commerce can grow and flourish, so every computer can be a window open to every business, large and small, everywhere in the world. That means minimal government, no new taxes, and no cumbersome regulation. We are working to make the Internet a global free-trade zone, to take advantage of its full potential for prosperity.

And our 21st Century Research Fund invests hundreds of millions of dollars to help speed the development of the Next Generation Internet. Think about how today's Internet has revolutionized your life and business. Just imagine what the next generation, moving 1,000 times faster, could help us achieve.

I believe very strongly that our approach is the right one for America's future competitiveness. Thanks to your hard work, it is hard to even compare our economic strength and standing to that of five years ago. Without chronic deficits to weigh us down -- and with a bold new investment plan for the 21st Century -- mark my words, we have only just begun to innovate.

But while every company must be poised to innovate and to act and think anew, we must also do so as a country, and as a community. For me, that single, stunning picture of the planet Earth on my office wall serves as a constant reminder of how much there is to learn and discover -- about the world and about ourselves. And today, I want to issue a challenge that I hope will advance that knowledge and discovery, and give us a richer understanding of the world we inhabit.

Five centuries ago, according to historians, a Spanish sailor named Rodrigo de Triana -- standing in the forecastle of Columbus' ship, the Pinta -- caught a first glimpse of the New World. Today, a clearer view of our own world could help us reach new heights of understanding and insight. That's why today I am proposing that NASA launch a satellite named Triana -- a spacecraft which would provide the very first live, continuous images of the entire Earth from space. It will bring into the digital age those remarkable pictures we received of our Earth a generation ago.

[START VIDEO]

Aboard Apollo 11 and on his rendezvous with history, Michael Collins said, "Houston,

I've got the world in my window." Triana will provide a permanent window onto our world for the good of all humanity.

Triana would be located at what scientists call the L1 point -- the point, about 1 million miles away, where the Earth's and the Sun's gravitational attractions are balanced. That balance is also critical to Triana's mission -- to both pull us out to explore the depths of space, and to pull us back to better understand our Earth.

The unique, full-color view of Earth to be captured by this satellite for the first time will complement existing space-based Earth observations of clouds and their movement. And it would track the global implications of events like hurricanes and storms as they occur. Today, we have to stitch together the pictures from multiple satellites. But with Triana, for the first time ever, the full illuminated portion of Earth will be viewed constantly with a single satellite.

The Triana's live, continuous, round-the-clock, high-resolution images of the globe will be available to television broadcasters and over the Internet. I call this broadcast the Earth - Satellite Picture Access Network or Earth - SPAN. Along with its potential uses in science and education, the Earth - SPAN broadcast from Triana could be used for monitoring and predicting the weather in real-time.

Under Dan Goldin's powerful leadership, NASA has put a premium on doing things faster, better, and cheaper. That's why I propose that Triana be launched in two years as an example of this initiative. As a nation, Triana would help us do what you as innovators do individually every day -- to step back from the smaller concerns of everyday existence and take the broader view which leads to new understanding, new ideas, new innovation. As Socrates said, 2,500 years ago, "Man must rise above the Earth, to the top of the atmosphere and beyond, for only thus will he fully understand the world in which he lives."

The astronaut Rusty Schweickart once described the feeling of looking homeward while orbiting the moon. "You realize that on that small spot, that little blue and white thing, is everything that matters to you. All of history and music, and poetry and art and war and death and birth and love, tears, joy, games, all of it is on that little spot out there that you can cover with your thumb." With Triana, that same experience could be available to all of us.

My hope is that Triana will serve as a scientific resource, and as a source of new information and ideas about space and Earth. But like the pictures from Apollo 17, it can be a metaphor for what we must seek in our own businesses, and in our own lives -- ways to shatter our preconceptions; ways to construct new paradigms; and ways to take that first, fresh look at a new idea or a new world.

Daniel Boorstin, the great former Librarian of Congress, wrote that "The most promising words ever written on the maps of human knowledge are terra incognita -- unknown territory." That is the territory you are helping us to explore, and we have already seen the fruits of your

labor. I am proud to say that you have a ready and willing partner in this administration, and that we will do everything we can to keep growth and innovation high, and productivity strong. So let us continue to blaze new paths to American competitiveness. Let us continue to search for uncharted territories -- be they near or far. In the spirit of this great institution, let us apply our hands, our minds, and our hearts to that endeavor. For that is how we will build the 21st Century and the new economy of our dreams.