

**BEFORE THE JUDICIAL PANEL
ON MULTIDISTRICT LITIGATION**

**IN RE INTEL CORP. MICROPROCESSOR
ANTITRUST LITIGATION**

MDL Docket No. 1717

**EXHIBITS
TO
PLAINTIFF ADVANCED MICRO DEVICES, INC.'S RESPONSE TO PLAINTIFFS
MICHAEL BRAUCH AND ANDREW MEIMES' MOTION TO TRANSFER AND
COORDINATE OR CONSOLIDATE FOR PRETRIAL PROCEEDINGS IN THE
NORTHERN DISTRICT OF CALIFORNIA**

EXHIBIT A

**Cases Filed Against Intel Corp.
in the United States District Court for the District of Delaware**

As of August 2, 2005

C.A. Number	Caption	Date Filed	Judge
05-470	Kidwell et al. v. Intel Corp.	July 6, 2005	Farnan
05-473	Rainwater et al. v. Intel Corp.	July 7, 2005	Farnan
05-476	Kravitz et al. v. Intel Corp.	July 8, 2005	Farnan
05-478	Ruccolo v. Intel Corp.	July 8, 2005	Farnan
05-485	Paul v. Intel Corp.	July 12, 2005	Farnan
05-488	Volden et al. v. Intel Corp.	July 13, 2005	Farnan
05-489	Chacon et al. v. Intel Corp.	July 13, 2005	Farnan
05-490	Simon v. Intel Corp.	July 13, 2005	Farnan
05-505	Ambruoso v. Intel Corp.	July 20, 2005	Farnan
05-508	Baran v. Intel Corp.	July 20, 2005	Farnan
05-509	Czysz v. Intel Corp.	July 20, 2005	Farnan
05-510	Ludt v. Intel Corp.	July 20, 2005	Farnan
05-515	Ficor Acquisition Co. LLC, et al. v. Intel Corp.	July 21, 2005	Farnan
05-519	Fairmount Orthopedics & Sports Medicine P.A. v. Intel Corp.	July 22, 2005	Farnan
05-520	Law Offices of Kwasi Asiedu v. Intel Corp.	July 22, 2005	Farnan
05-521	HP Consulting Services Inc. v. Intel Corp.	July 22, 2005	Farnan
05-522	Cowan, et al. v. Intel Corp.	July 22, 2005	Farnan
05-526	Manyin v. Intel Corp.	July 22, 2005	Unassigned
05-531	Cone v. Intel Corp.	July 25, 2005	Unassigned
05-532	Feitelberg v. Intel Corp.	July 25, 2005	Unassigned

**Cases Filed Against Intel Corp.
in the United States District Court for the District of Delaware**

As of August 2, 2005

C.A. Number	Caption	Date Filed	Judge
05-533	Weeth v. Intel Corp.	July 25, 2005	Unassigned
05-537	Harr v. Intel Corp.	July 26, 2005	Unassigned
05-539	Cohn v. Intel Corp.	July 26, 2005	Unassigned
05-540	Griffin v. Intel Corp.	July 26, 2005	Unassigned
05-541	Kornegay v. Intel Corp.	July 27, 2005	Unassigned
05-544	Ramos v. Intel Corp.	July 28, 2005	Unassigned
05-547	Bergerson & Assocs., Inc. v. Intel Corp.	July 28, 2005	Unassigned
05-554	Arnold v. Intel Corp.	Aug. 1, 2005	Unassigned
05-556	Genese, et al. v. Intel Corp.	Aug. 1, 2005	Unassigned

EXHIBIT B

**Cases Filed Against Intel Corp.
in the United States District Court for the Northern District of California**

As of August 1, 2005

C.A. Number	Caption	Date Filed	Judge
C-05-2669	Lipton, et al. v. Intel Corp.	June 29, 2005	Patel
C-05-2700	Konieczka, et al. v. Intel Corp.	June 30, 2005	Patel
C-05-2699	Prohias, et al. v. Intel Corp.	June 30, 2005	Patel
C-05-2721	Hamilton, et al. v. Intel Corp.	July 1, 2005	Patel
C-05-2720	Niehaus, et al. v. Intel Corp.	July 1, 2005	Patel
C-05-2743	Brauch, et al. v. Intel Corp.	July 5, 2005	Patel
C-05-2758	Baxley, et al. v. Intel Corp.	July 8, 2005	Patel
C-05-2818	Dickerson, et al. v. Intel Corp.	July 11, 2005	Patel
C-05-2813	Frazier, et al. v. Intel Corp.	July 11, 2005	Patel
C-05-2823	The Harman Press, et al. v. Intel Corp.	July 11, 2005	Patel
C-05-2830	Shanghai 1930 Restaurant Partners, L.P., et al. v. Intel Corp.	July 12, 2005	Patel
C-05-2831	Major League Softball, Inc., et al. v. Intel Corp.	July 12, 2005	Patel
C-05-2834	Allanoff, et al. v. Intel Corp.	July 13, 2005	Patel
C-05-2858	Law Offices of Laurel Stanley, et al. v. Intel Corp.	July 13, 2005	Patel
C-05-2859	Lazio Family Products, et al. v. Intel Corp.	July 13, 2005	Patel
C-05-2882	Walker, et al. v. Intel Corp.	July 14, 2005	Patel
C-05-2898	Naigow, et al. v. Intel Corp.	July 15, 2005	Patel
C-05-2897	Stoltz, et al. v. Intel Corp.	July 15, 2005	Patel
C-05-2916	Hewson, et al. v. Intel Corp.	July 18, 2005	Patel

**Cases Filed Against Intel Corp.
in the United States District Court for the Northern District of California**

As of August 1, 2005

C.A. Number	Caption	Date Filed	Judge
C-05-2957	Lang, et al. v. Intel Corp.	July 20, 2005	Patel
C-05-3028	Trotter-Vogel Realty, Inc. dba Prudential California Realty, et al. v. Intel Corp.	July 26, 2005	Patel
C-05-3094	Juskiewicz, et al. v. Intel Corp.	July 29, 2005	Zimmerman

**Cases Filed Against Intel Corp.
in the United States District Court for the Southern District of California**

C.A. Number	Caption	Date Filed	Judge
05-CV-1507	Suarez v. Intel Corp.	July 27, 2005	Miller

EXHIBIT C

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ADVANCED MICRO DEVICES, INC , a
Delaware corporation, and AMD
INTERNATIONAL SALES & SERVICE,
LTD , a Delaware corporation,

Plaintiffs,

vs.

INTEL CORPORATION, a Delaware
corporation, and INTEL KABUSHIKI
KAISHA, a Japanese corporation,

Defendants)

Civil Action No. 05 - 441

JURY TRIAL DEMANDED

2005 JUN 27 PM 4:22
CLERK OF COURT
DISTRICT OF DELAWARE

COMPLAINT

Plaintiffs ADVANCED MICRO DEVICES, INC. and AMD INTERNATIONAL SALES & SERVICE, LTD (hereafter collectively, "AMD"), by and through their undersigned attorneys, and for their complaint against INTEL CORPORATION and its worldwide family of dominated subsidiaries, including INTEL KABUSHIKI KAISHA (hereafter collectively, "Intel"), aver on knowledge as to themselves and their own acts and on information and belief as to all other matters, as follows:

NATURE OF THE ACTION

1 Like Standard Oil at the turn of the Nineteenth Century and Alcoa Aluminum during the Twentieth, Intel holds a monopoly in a market critical to our economy. microprocessors that run the Microsoft Windows and Linux families of operating systems (hereinafter the "x86 Microprocessor Market"). Although AMD competes with Intel in this

global market, Intel possesses unmistakable and undeniable market power, its microprocessor revenues accounting for approximately 90% of the worldwide total (and 80% of the units)

2 Just like Standard Oil and Alcoa before it, for over a decade Intel has unlawfully maintained its monopoly by engaging in a relentless, worldwide campaign to coerce customers to refrain from dealing with AMD. Among other things,

- Intel has forced major customers into exclusive or near-exclusive deals;
- it has conditioned rebates, allowances and market development funding on customers' agreement to severely limit or forego entirely purchases from AMD;
- it has established a system of discriminatory, retroactive, first-dollar rebates triggered by purchases at such high levels as to have the practical and intended effect of denying customers the freedom to purchase any significant volume of processors from AMD;
- it has threatened retaliation against customers introducing AMD computer platforms, particularly in strategic market segments;
- it has established and enforced quotas among key retailers effectively requiring them to stock overwhelmingly, if not exclusively, Intel-powered computers, thereby artificially limiting consumer choice;
- it has forced PC makers and technology partners to boycott AMD product launches and promotions;
- and it has abused its market power by forcing on the industry technical standards and products which have as their central purpose the handicapping of AMD in the marketplace

3. Intel's economic coercion of customers extends to all levels – from large computer-makers like Hewlett-Packard and IBM to small system-builders to wholesale distributors to retailers such as Circuit City. All face the same choice: accept conditions that exclude AMD or suffer discriminatory pricing and competitively crippling treatment. In this way, Intel has avoided competition on the merits and deprived AMD of the opportunity to stake its prices and quality against Intel's for every potential microprocessor sale.

4. Intel's conduct has become increasingly egregious over the past several years as AMD has achieved technological leadership in critical aspects of microprocessor architecture. In April 2003, AMD introduced its Opteron microprocessor, the first microprocessor to take x86 computing from 32 bits to 64 bits – an advance that allows computer applications to address exponentially more memory, thereby increasing performance and enabling features not possible with just 32 bits. Unlike Intel's 64-bit architecture of the time (Itanium), the AMD Opteron – as well as its subsequently-introduced desktop cousin, the AMD Athlon64 – offers backward compatibility, allowing PC users to continue using 32-bit software as, over time, they upgrade their hardware. Bested in a technology duel over which it long claimed leadership, Intel increased exploitation of its market power to pressure customers to refrain from migrating to AMD's superior, lower-cost microprocessors.

5. Intel's conduct has unfairly and artificially capped AMD's market share, and constrained it from expanding to reach the minimum efficient levels of scale necessary to compete with Intel as a predominant supplier to major customers. As a result, computer manufacturers continue to buy most of their requirements from Intel, continue to pay monopoly prices, continue to be exposed to Intel's economic coercion, and continue to submit to artificial limits Intel places on their purchases from AMD. With AMD's opportunity to compete thus constrained, the cycle continues, and Intel's monopoly profits continue to flow.

6. Consumers ultimately foot this bill, in the form of inflated PC prices and the loss of freedom to purchase computer products that best fit their needs. Society is worse off for lack of innovation that only a truly competitive market can drive. The Japanese Government recognized these competitive harms when on March 8, 2005, its Fair Trade Commission (the "JFTC") recommended that Intel be sanctioned for its exclusionary misconduct directed at AMD. Intel chose not to contest the charges.

JURISDICTION AND VENUE

7 The Court has subject matter jurisdiction under 28 U.S.C. § 1337 (commerce and antitrust regulation) and 28 U.S.C. § 1331 (federal question), as this action arises under Section 2 of the Sherman Act, 15 U.S.C. § 2, and Sections 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15(a) and 26. The Court has supplemental subject matter jurisdiction of the pendent state law claims under 28 U.S.C. § 1367

8 Venue is proper because Intel Corporation and Intel Kabushiki Kaisha reside and are found in this district within the contemplation of 28 U.S.C. § 1391 (b) and (c) and as provided in Sections 4 and 12 of the Clayton Act, 15 U.S.C. §§ 15 and 22. Additionally venue is proper as to Intel Kabushiki Kaisha, an alien corporation, under 28 U.S.C. § 1391(d)

THE PARTIES

9. Plaintiff ADVANCED MICRO DEVICES, INC. is a Delaware corporation with its principal executive offices at Sunnyvale, California. AMD designs, produces and sells a wide variety of microprocessors, flash memory devices, and silicon-based products for use in the computer and communications industries worldwide. Plaintiff AMD INTERNATIONAL SALES & SERVICE, LTD., also a Delaware corporation based in Sunnyvale, is a wholly-owned AMD subsidiary engaged in selling AMD microprocessors outside of North America.

10. Defendant INTEL CORPORATION is a Delaware corporation with its principal executive offices at Santa Clara, California, and it conducts business both directly and through wholly-owned and dominated subsidiaries worldwide. Intel and its subsidiaries design, produce, and sell a wide variety of microprocessors, flash memory devices, and silicon-based products for use in the computer and communications industries worldwide. Defendant INTEL KABUSHIKI KAISHA, a Japanese corporation, is Intel's wholly-owned and dominated subsidiary through which Intel sells its microprocessors in Japan.

FACTUAL BACKGROUND

Early History

11. The brain of every computer is a general-purpose microprocessor, an integrated circuit capable of executing a menu of instructions and performing requested mathematical computations at very high speed. Microprocessors are defined by their instruction set – the repertoire of machine language instructions that a computer can follow. So, too, are computer operating systems – software programs that perform the instructions in the set allowing the computer to perform meaningful tasks. The first generation of microprocessors, which were capable of handling 4 and then later 8 bits of data simultaneously, evolved to provide 16-bit capability (the original DOS processors), then sometime later a 32-bit capability (allowing the use of advanced graphical interfaces such as later versions of Windows), and now 64-bit capability

12. When IBM defined the original PC standards in the early 1980s, it had available to it a variety of microprocessors, each with its own instruction set – among these were microprocessors developed by Motorola, Zilog, National Semiconductor, Fairchild, Intel and AMD. IBM opted for the Intel architecture, which utilized what became known as the x86 instruction set (after Intel's naming convention for its processors, *i.e.*, 8086, 80186, 80286, 80386), and a compatible operating system offered by Microsoft, known as DOS. Unwilling to be consigned to a single source of supply, however, IBM demanded that Intel contract with another integrated circuit company and license it to manufacture x86 chips as a second source. AMD, which had worked with Intel before in supplying microprocessors, agreed to abandon its own, competing architecture, and it undertook to manufacture x86 chips as a second source of supply. Assured that it would not be dependent upon a monopoly supplier of x86 chips, IBM introduced the PC in August 1981 – and its sales exploded

13. Although an arbitrator later found that “AMD’s sponsorship helped propel Intel from the chorus line of semiconductor companies into instant stardom,” Intel soon set out to torpedo the 1982 AMD-Intel Technology Exchange Agreement (the “Agreement”) by which

each would serve as a second source for products developed by the other. For example, Intel was required by the Agreement to send AMD timely updates of its second generation 80286 chip. Instead, in a "deliberate[]" effort "to shackle AMD progress," Intel sent AMD information "deliberately incomplete, deliberately indecipherable and deliberately unusable by AMD engineers." The conduct was, in the arbitrator's words, "inexcusable and unworthy." And it was not isolated. Intel elsewhere tried to "sabotage" AMD products, engaged in "corporate extortion" and demonstrated a near-malevolent determination "to use all of its economic force and power on a smaller competitor to have its way."

14. In another underhanded effort to stifle AMD's business, Intel decided in 1984 that, the agreement between the parties notwithstanding, Intel would become the sole-source for the promising 80386 chip. To fully realize its objective, Intel engaged in an elaborate and insidious scheme to mislead AMD (and the public) into erroneously believing that AMD would be a second source, thereby keeping AMD in the Intel "competitive camp" for years. This duplicitous strategy served a broader purpose than simply preventing AMD from competing with Intel. Customers' perception that AMD would continue to serve as Intel's authorized second source was essential to Intel's aim of entrenching the x86 family of microprocessors as the industry standard (as it had been essential to IBM's original introduction of the PC). Intel was well aware that if computer manufacturers knew Intel intended to sole source its 32-bit product, they would be motivated to select alternative products produced by companies offering second sources. Intel could not preserve the appearance that AMD would second source the 386 if it terminated the contract or otherwise disclosed its actual intent. Thus, Intel stalled negotiations over product exchanges, while at the same time allowing AMD to believe that it could ultimately obtain the 386. This injured competition by deterring and impeding serious competitive challenges to Intel and directly injured AMD by depriving it of the revenues and profits it would have earned from such a challenge.

15. Intel implemented this secret plan for the purpose of acquiring and maintaining an illegal monopoly in the x86 line of microprocessors, which it did by at least 1987. As was its

plan, Intel's conduct drained AMD's resources, delayed AMD's ability to reverse-engineer or otherwise develop and manufacture competitive products, and deterred AMD from pursuing relationships with other firms. In so doing, Intel wrongfully secured the benefit of AMD's marketing skills and talent in support of the x86 line of microprocessors and related peripherals and secured the benefit of substantial competitively sensitive AMD information regarding its product development plans. When AMD petitioned to compel arbitration in 1987 for Intel's breach and bad faith, the arbitrator took notice of Intel's anticompetitive design: "In fact, it is no fantasy that Intel wanted to blunt AMD's effectiveness in the microprocessor marketplace, to effectively remove AMD as a competitor."

16. In 1992, after five years of litigation, the arbitrator awarded AMD more than \$10 million plus prejudgment interest and a permanent, nonexclusive and royalty-free license to any Intel intellectual property embodied in AMD's own 386 microprocessor, including the x86 instruction set. Confirmation of the award was upheld by the California Supreme Court two years later. In bringing the litigation to a close, the arbitrator hoped that by his decision, "the competition sure to follow will be beneficial to the parties through an expanded market with appropriate profit margins and to the consumer worldwide through lower prices." Not for the first time, and certainly not for the last, Intel's anticompetitive zeal was woefully underestimated.

AMD Moves from Second Source to Innovator

17. Shortly after confirmation of the award, AMD settled its outstanding disputes with Intel in a 1995 agreement which gave AMD a shared interest in the x86 instruction set but required it to develop its own architecture to implement those instructions. The settlement had the unintended benefit of forcing AMD to reinvent itself. Beginning in the late 1990s, AMD committed its resources to innovating not just to be different, but to deliver solutions of greatest benefit to its customers. Going its own way proved beneficial: AMD's first x86 chip without Intel pin-compatibility, the Athlon microprocessor delivered in 1999, marked the first

(but not last) time AMD was to leapfrog Intel technologically and beat it to market with a new generation Windows microprocessor (and break the 1GHz speed barrier to boot).

18. But AMD's biggest breakthrough came four years later when it introduced an extension of x86 architecture that took Windows processors into the realm of 64-bit computing. Unlike Intel, which invested billions in its Itanium microprocessor and a new, uniquely 64-bit proprietary instruction set (which, because it was proprietary, would have been a game-ending development for AMD had it become the industry standard), AMD undertook to supplement the x86 instructions to accommodate 64-bit processing while allowing 32-bit software to be run as well. AMD's efforts culminated when, in April 2003, it brought to market its Opteron microprocessor for servers (the workhorse computers used by businesses to run corporate networks, e-commerce websites and other high-end, computationally-intense applications). Opteron was the industry's first x86 backward compatible 64-bit chip. Six months later, AMD launched the Athlon64, a backward compatible 64-bit microprocessor for desktops and mobile computers.

19. The computing industry hailed AMD's introduction of 64-bit computing as an engineering triumph. Said *Infoworld* in its August 27, 2004, issue,

You just gotta love a Cinderella story. . . AMD's rapid rise from startup to \$5 billion semiconductor powerhouse is, as Humphrey Bogart's English teacher once said, the stuff of which dreams are made. . . . In the process, AMD has become known as the company that kept Intel honest, the Linux of the semiconductor world. . . . After decades of aping Intel architectures, the AMD64 architecture, rooted in Opteron and Athlon 64 processors, has actually been imitated by Intel in the form of Nocona, Intel's 64-bit version of Xeon. In a stunning reversal of fortune, Intel was forced to build that chip because Opteron was invading a server market that the Intel Itanium was supposed to dominate.

In what represented a paradigm shift in the microprocessor world, Microsoft endorsed AMD's 64-bit instruction set and announced that Windows would support it. As noted by *Infoworld*,

Intel then copied AMD's technology for its own 64-bit offerings – an event that poignantly marked AMD's technological emergence Intel still has yet to catch up.

20 AMD has since extended its AMD64 technology to the balance of AMD's microprocessor line-up (which now includes AMD Athlon 64, AMD Athlon 64 FX, Mobile AMD Athlon 64, AMD Sempron, and AMD Turion64 products) Owing also to AMD's pioneering developments in dual-core processors and its introduction of an improved architecture that speeds up microprocessor communications with memory and input/output devices, AMD has seized technological leadership in the microprocessor industry. Its innovation has won for it over 70 technology leadership and industry awards and, in April 2005, the achievement of being named "Processor Company of 2005" at, to Intel's embarrassment, an Intel-sponsored industry awards show.

21. Tellingly, AMD's market share has not kept pace with its technical leadership Intel's misconduct is the reason. Intel has unlawfully maintained the monopoly IBM bestowed on it and systematically excluded AMD from any meaningful opportunity to compete for market share by preventing the companies that buy chips and build computers from freely deploying AMD processors; by relegating AMD to the low-end of the market, by preventing AMD from achieving the minimum scale necessary to become a full-fledged, competitive alternative to Intel, and by erecting impediments to AMD's ability to increase its productive capacity for the next generation of AMD's state of the art microprocessors Intel's exclusionary acts are the subject of the balance of this complaint

THE x86 PROCESSOR INDUSTRY

Competitive Landscape

22 The x86 versions of Windows and Linux, the two operating systems that dominate the business and consumer computer worlds, have spawned a huge installed base of Windows- and Linux-compatible application programs that can only run the x86 instruction set This has given Intel effective ownership of personal computing. Although other

microprocessors are offered for sale, the non-x86 microprocessors are not reasonably interchangeable with x86 microprocessors because none can run the x86 Windows or Linux operating systems or the application software written for them.

23. The relevant product market is x86 microprocessors because a putative monopolist in this market would be able to raise the prices of x86 microprocessors above a competitive level without losing so many customers to other microprocessors as to make this increase unprofitable. While existing end-users can theoretically shift to other operating-system platforms, high switching costs associated with replacing existing hardware and software make this impractical. Further, the number of new, first-time users who could choose a different operating-system platform is too small to prevent an x86 microprocessor monopolist from imposing a meaningful price increase for a non-transitory period of time. Computer manufacturers would also encounter high switching costs in moving from x86 processors to other architectures, and no major computer maker has ever done it. In short, demand is not cross-elastic between x86 microprocessors and other microprocessors at the competitive level.

24. The relevant geographic market for x86 microprocessors is worldwide. Intel and AMD compete globally; PC platform architecture is the same from country to country; microprocessors can be easily and inexpensively shipped around the world, and frequently are; and the potential for arbitrage prevents chipmakers from pricing processors differently in one country than another.

25. Intel dominates the worldwide x86 Microprocessor Market. According to published reports, over the past several years it has consistently achieved more than a 90% market share as measured by revenue, while AMD's revenue share has remained at approximately 9%, with all other microprocessor manufacturers relegated to less than 1%. Intel has captured at least 80% of x86 microprocessor unit sales in seven of the last eight years. Since 1999, AMD's worldwide volume share has hovered at 15%, only once penetrating barely the 20% level. The following chart is illustrative:

x86 Worldwide CPU Unit Market Share

	1997	1998	1999	2000	2001	2002	2003	2004
Intel	85.0%	80.3%	82.2%	82.2%	78.7%	83.6%	82.8%	82.5%
AMD	7.3%	11.9%	13.6%	16.7%	20.2%	14.9%	15.5%	15.8%
Others	7.5%	7.9%	4.2%	1.1%	1.1%	1.4%	1.7%	1.7%

26 Intel's x86 family of microprocessors no longer faces any meaningful competition other than from AMD. National Semiconductor acquired Cyrix in 1997 but shuttered it less than two years later. At the beginning of this year only two other x86 chip makers remained, Via Technologies, Inc. and Transmeta Corporation – which together account for less than 2% of the market. Transmeta has since announced its intention to cease selling x86 microprocessors, and Via faces dim prospects of growing its marketshare to a sustaining level.

27 Intel is shielded from new competition by huge barriers to entry. A chip fabrication plant ("fab") capable of efficiently mass-producing x86 microprocessors carries a price tag of at least \$2.5 to \$3.0 billion. In addition, any new entrant would need the financial wherewithal to underwrite the billions more in research and development costs to design a competing x86 microprocessor and to overcome almost insurmountable IP and knowledge barriers.

Customers for x86 Microprocessors

28 Annual worldwide consumption of x86 microprocessors currently stands at just over 200 million units per year and is expected to grow by 50% over the remainder of the decade. Relatively few microprocessors are sold for server and workstation applications (8.75 million in 2004), but these command the highest prices. Most x86 microprocessors are used in desktop PCs and mobile PCs, with desktops currently outnumbering mobile by a margin of three to one. Of the total worldwide production of computers powered by x86 microprocessors, 32% are sold to U.S. consumers; U.S. sales of AMD-powered computers account for 29% of AMD's production.

29 The majority of x86 microprocessors are sold to a handful of large OEMs (original equipment manufacturers), highly visible companies recognized throughout the world as the leading computer makers. Regarded by the industry as "Tier One" OEMs over most product categories are: Hewlett-Packard ("HP"), which now also owns Compaq Computer, Dell, Inc ; IBM, which as of May 1, 2005, sold its PC (but not server) business to Lenovo, Gateway/eMachines, and Fujitsu/Fujitsu Siemens, the latter a Europe-based joint venture Toshiba, Acer, NEC and Sony are also commonly viewed as Tier One OEMs in the notebook segment of the PC market. HP and Dell are the dominant players, collectively accounting for over 30% of worldwide desktop and mobile sales, and almost 60% of worldwide server sales. Both are U.S.-based companies, as are IBM and Gateway/eMachines; and all but Gateway have U.S. manufacturing operations (as does Sony, which operates a North American production facility in San Diego).

30 Worldwide, the Tier One OEMs collectively account for almost 80% of servers and workstations (specialty high-powered desktops), more than 40% of worldwide desktop PCs, and over 80% of worldwide mobile PCs. According to industry publications, unit market share in 2004 among the Tier One OEMs were as follows.

OEM Market Shares – 2004

<u>Company</u>	<u>Server/WS</u>	<u>Desktop</u>	<u>Mobile</u>
Hewlett-Packard	29.86%	13.69%	16.23%
Dell	28.34%	16.18%	17.27%
IBM/Lenovo	14.46%	3.69%	9.20%
Fujitsu/Siemens	3.70%	2.83%	6.88%
Acer	0.81%	1.85%	8.53%
Toshiba	0.31%	0.05%	12.73%
NEC	2.06%	2.02%	4.50%
Sony	--	0.76%	4.23%
Gateway/eMachines	0.16%	2.48%	1.45%
Total	79.70%	43.55%	81.02%