JUDGE ROBINSON

IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK



INTERNATIONAL BUSINESS MACHINES CORPORATION,

Plaintiff,

-vs.-

PLATFORM SOLUTIONS, INC.,

Defendant.

Civil Action No.

JURY TRIAL DEMANDED

COMPLAINT

Plaintiff International Business Machines Corporation (IBM: A Signification its attorneys Quinn Emanuel Urquhart Oliver & Hedges, LLP, as and for its Complaint against defendant Platform Solutions, Inc. ("PSI"), states as follows:

Nature of the Action

- This is an action for breach of contract, patent infringement, and a declaratory judgment by IBM against PSI.
- 2. IBM has invested substantial amounts of time, effort, know-how, creativity, and money to develop its computer systems, the architectures for those systems, and the operating systems and other software programs that are compatible with and run on those architectures. IBM's efforts have been directed to developing combinations of computer hardware and software specifically tailored to meet the most demanding customer requirements. As a result of IBM's investment, IBM's computer systems and programs provide unparalleled performance, reliability, availability,

serviceability, and security and have been widely accepted for use by customers in environments where accuracy, data integrity, and reliability are critically important.

- 3. PSI seeks to usurp the value of IBM's investment. PSI has developed and is bringing to market and offering for sale computer systems ("emulator systems") that seek to imitate IBM's computers and that PSI claims will run IBM's copyrighted operating systems and other software programs on computers other than the ones for which the IBM software was written.
- 4. PSI is using, promoting, and offering for sale PSI's emulator systems in New York and elsewhere and is asserting that (a) PSI's emulator systems allow users to translate and run IBM's operating systems on computers other than the ones for which the IBM software was written and allow users to obtain the patented functionality of IBM's computer architectures on computers that do not implement those architectures; and (b) purchasers of PSI's emulator systems will be able to license IBM's operating systems and other software from IBM for use on PSI's emulator systems.
- 5. In developing, operating, and promoting its emulator systems, PSI has breached the contracts under which IBM has licensed PSI to use IBM software. IBM licenses certain of its operating systems and other software to end user customers, including PSI, pursuant to the IBM Customer Agreement ("ICA"). PSI has obtained licenses to use IBM software pursuant to an ICA that expressly prohibits, among other things, any translation of the licensed software programs. In violation of this express prohibition, to which PSI contractually bound itself in obtaining the applicable licenses, PSI has developed emulator systems that, according to PSI, translate IBM software that runs on IBM computer architectures so as -- again according to PSI -- to allow that

was written. By using IBM's software in conjunction with PSI's emulator systems and thereby translating the IBM software, PSI has breached its software license agreements with IBM. IBM seeks damages and a declaration that it is authorized to terminate PSI's software licenses based on PSI's breaches of the terms of the ICA.

- 6. In addition, in developing, operating, and promoting its systems, PSI has used IBM's own intellectual property without authorization. PSI's emulator systems, to work as PSI claims, necessarily infringe IBM patents. PSI's marketing program is a blatant attempt to infringe on IBM's intellectual property and to convert to PSI the fruits of IBM's substantial investments in developing computer systems, architectures, operating systems, and other software. By this action, IBM seeks to preclude PSI from marketing and offering for sale emulator systems that infringe IBM's patents. IBM seeks relief under the patent laws in order to prevent irreparable harm to IBM from PSI's infringing activities, including its sales of, and/or offers to sell, directly and through third parties, infringing emulator systems.
- 7. As PSI has breached IBM's software license agreements and infringed IBM's patents in developing, operating, and promoting its infringing emulator systems, PSI has insisted that IBM agree to license IBM's patents to PSI and IBM's copyrighted operating systems and other software for use on PSI's systems. IBM has declined to grant the requested licenses because, among other reasons, PSI is infringing IBM's patents. PSI has responded by threatening baseless antitrust litigation seeking substantial alleged damages. IBM seeks a declaration that its refusal to license IBM's patents to PSI and IBM's copyrighted operating systems and other software for use on PSI's emulators

20199/2002551,3

does not violate the antitrust laws -- a declaration for which IBM relies, in part, on the same evidence of patent infringement by PSI that forms the basis for IBM's claims for affirmative relief under the patent laws.

The Parties

- 8. Plaintiff IBM is a corporation organized and existing under the laws of New York, having its principal place of business at New Orchard Road, Armonk, New York 10504. IBM's business activities, including research and development, manufacturing, marketing, and service, are primarily in the field of information processing products and services. IBM develops, manufactures, markets, and services computers, computer equipment, and software on a worldwide basis in competition with a large number of firms both inside and outside of the United States.
- Defendant PSI is a corporation organized and existing under the laws of California, having its principal place of business at 501 Macara Avenue, Suite 101, Sunnyvale, California 94085.

Jurisdiction and Venue

- 10. IBM's claims arise under the patent and antitrust laws of the United States, 35 U.S.C. §§ 1 et seq. and 15 U.S.C. §§ 1 et seq. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 11. This Court has jurisdiction over IBM's breach of contract claim pursuant to 28 U.S.C. §§ 1332 and 1367. There is complete diversity of citizenship, and the amount in controversy exceeds \$75,000, exclusive of interest and costs.
- 12. This Court has authority to grant declaratory relief pursuant to the Declaratory Judgment Act, 28 U.S.C. §§ 2201 et seq.

20199/2002551,3 4

13. This Court has personal jurisdiction over PSI because PSI (directly and through its licensees and marketing partners): (a) is transacting business in the State of New York; (b) has offered its infringing products for sale in this District; (c) has an Eastern Regional Manager located in Rochester, New York; (d) has raised substantial funding for its emulator development program in New York; (e) has licensed IBM software pursuant to license agreements that are governed by New York law and were negotiated on the basis of correspondence and communications directed to New York; (f) has placed orders through IBM's New York website for IBM software which PSI has used in its emulator development and marketing program; and (g) has held meetings with IBM in New York, and directed correspondence to IBM in New York, concerning PSI's emulator systems in which it has requested that IBM license its patents to PSI and its copyrighted operating systems and other software for use on PSI emulator systems and threatened antitrust litigation. Because any use of IBM's software in conjunction with PSI's emulator systems involves the translation of IBM's software in violation of the applicable license agreements, all demonstrations and uses of PSI's emulator systems in New York involve breaches of contract that have occurred in New York. In addition, PSI has committed (and permitted its licensees and marketing partners to commit) acts of patent infringement and/or has contributed to or induced acts of patent infringement by others in New York, and has taken actions elsewhere directed to selling PSI emulator systems to customers based in New York; and/or PSI expects or should reasonably expect its acts to have consequences in New York and the acts have caused and will cause injury to IBM in New York. Among other things, PSI has publicly presented its infringing emulator systems in New York, including at a SHARE Conference in New York;

Maintains an interactive website accessible to New York residents and contacts New York residents who express an interest in PSI's emulator systems from the office of its Eastern Regional Manager in Rochester, New York; and has met with customers in New York to promote the sale of, and offer to sell, PSI's emulator systems. An infringing PSI emulator system has been installed and used at a customer location in New York.

14. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b). 1391(c), and 1400(b). A substantial part of the events giving rise to IBM's request for declaratory relief occurred in this judicial district. IBM and PSI met at IBM's offices in New York to discuss IBM's decision not to license its patent and software, and PSI directed correspondence to IBM's offices in New York, requesting a license for IBM's patents and software and threatening antitrust litigation. In addition, the actions of PSI (directly and through its licensees and marketing partners) in New York and directed to New York that infringe IBM's patents and breach IBM's software license agreements are sufficient to give rise to personal jurisdiction in New York and accordingly support venue in this District. These activities include publicly presenting PSI's infringing emulator system at an industry conference in New York; using IBM software in New York in breach of the applicable license agreements; meeting with customers in New York to promote the sale of, and offer to sell, PSI emulator systems; and installing an infringing PSI emulator system at a customer location in New York. Alternatively, the doctrine of pendent venue applies to IBM's patent infringement claims, so that this Court may in its discretion hear those claims, which arise out of the same nucleus of operative facts as IBM's declaratory judgment claim.

20199/2002551,3

Factual Background

- A. IBM Has Invested Heavily In Computer Systems, Architectures, Operating Systems, And Other Software.
- 15. For over forty years, IBM has invested substantial time, effort, know-how, and creativity, and substantial amounts of money, in developing and improving its computer architectures and the computer systems that implement those architectures.
- 16. As a result of its investments over time, IBM has developed System z. System z is the brand name for IBM's current mainframe computer systems. System z has evolved from IBM computer systems dating back to 1964. Its predecessors include IBM's System/390[®] ("S/390[®]"), which was introduced in 1990. System z is an umbrella term for: IBM zSeries[®] servers (introduced in 2000), IBM System z9 servers (introduced in 2005), and IBM operating systems and other IBM software that run on zSeries[®] or z9 servers.
- 17. A computer's architecture defines the logical structure and functional operation of the computer. System z computers implement IBM's current 64-bit z/Architecture[®]. As a result of IBM's investments, IBM's z/Architecture[®] has evolved over time from predecessor architectures, including IBM's 31-bit Enterprise Systems Architecture/390[®] ("ESA/390"), Enterprise Systems Architecture/370 ("ESA/370"), and several earlier architectures.
- 18. Operating systems comprise the fundamental software that controls the execution of programs on the computer and provides basic services such as resource allocation, scheduling, input/output control, and data management. IBM's operating systems, like its architectures and computer systems, are the product of substantial investments over time.

7

- implement a particular operating systems are designed to run on computers that implement a particular architecture and to capitalize on the features and characteristics of that architecture. IBM's copyrighted OS/390® operating system, for example, was designed to run on IBM's S/390® computers, which implement IBM's ESA/390 Architecture. IBM's copyrighted z/OS® operating system is the successor operating system to OS/390® and is designed to run on IBM's System z computers, which implement IBM's z/Architecture®. The relationship between IBM's computer architectures and the operating systems designed to run on those architectures is one of the important factors contributing to the accuracy and reliability of IBM's computer systems and to customer acceptance of those systems for mission-critical applications.
- 20. In addition to mainframe operating systems, architectures, and computers that implement those architectures, IBM has invested substantial time, effort, know-how, creativity, and money in developing other software programs that work in conjunction with those operating systems and computers and themselves capitalize on the features and characteristics of IBM's computer architectures. Examples of such other IBM software programs include IBM's Customer Information Control System ("CICS[®]") and IBM's Database 2 ("DB2[®]"). Like IBM's operating systems, these programs are designed to operate in conjunction with IBM's computer architectures and to capitalize on the features and characteristics of IBM's architectures.
- 21. IBM holds a substantial portfolio of patents relating to System z and predecessor computer systems. IBM's patents are directed, among other things, to aspects of its z/Architecture[®], as well as to aspects of the predecessor ESA/390 Architecture. IBM has further sought to protect its substantial investment in computer

intellectual property by copyrighting its mainframe operating systems and other software and by imposing reasonable contractual restrictions on the manner in which customers may use those computer programs.

- B. PSI Now Seeks To Convert IBM's Substantial Investment In Intellectual Property By Developing And Marketing Systems That Emulate IBM's Computer Architectures.
- 22. Recognizing the substantial value of IBM's intellectual property, PSI has developed and is now implementing a business model that seeks to usurp the value of IBM's investment in mainframe computer systems, architectures, operating systems, and other IBM software programs. PSI seeks to do this by emulating, or mimicking, IBM's computer architectures. An emulator is a combination of software, firmware, and/or hardware added to a computer that implements one architecture (e.g., the Intel Architecture) for the purpose of translating computer programs written for a different architecture and enabling those programs to be run on the computer to which the emulator has been added. The purpose of an emulator is to allow the computer to which it is added to accept the same data and the same instructions, run the same programs, and achieve the same results as does the computer whose architecture is being emulated. According to PSI, PSI's emulator systems accomplish this objective by translating IBM's copyrighted software into a set of instructions that can be executed by a processor that is not capable of executing the original IBM instructions.
- 23. PSI claims to be "the first developer of a new generation of mainframe computers compatible with the broadest set of datacenter environments and operating systems, including IBM® z/OS®." PSI asserts that its emulator systems are compatible with IBM's ESA/390 Architecture and z/Architecture® computer systems. The PSI emulator systems run on an Intel® Itanium®-based server. According to PSI, its emulator

systems are capable of running IBM's OS/390[®] and z/OS[®] operating systems and other IBM computer programs that run on those operating systems, such as IBM's CICS[®] and DB2[®].

- 24. As PSI's public statements recognize, a complete emulator of an IBM computer architecture must, by definition, fully and exactly mimic the relevant IBM architecture. IBM's z/Architecture[®] is defined in an approximately 1000-page <u>Principles of Operation</u> ("<u>POP</u>"), the fifth edition of which was published in 2005. If the <u>POP</u> indicates that a facility is present, and PSI's emulator does not exactly mimic it, software that attempts to make use of the facility will not work properly. To be a viable emulator, PSI's emulator system would have to be able to accurately run z/OS[®] and at least any additional System z software required by the customers that PSI is targeting.
- 25. PSI has asserted that its emulator systems are able to execute "the 1200+ instructions from the z/OS and S/390 instruction set," and that its emulator systems are compatible with *i.e.*, capable of running IBM's OS/390® and z/OS® operating systems, other IBM software intended to run on OS/390® and z/OS®, and vendor and customer application software intended to run on those operating systems. PSI (through one of its licensees and marketing partners) has recently elaborated on this statement, asserting that PSI's emulator systems will run IBM's "latest" z/OS® operating system. PSI has further asserted that z/OS® workloads will run "identically" on PSI's emulator systems as on an IBM mainframe computer.
- 26. zSeries® servers and their predecessors have been the backbone of commercial computing for decades, renowned for their reliability, scalability, availability, serviceability, and other industrial-strength attributes. The zSeries® server

and its z/OS® operating system were designed for environments requiring very high performance, reliability, accuracy, and security. Many z/OS® customers have business requirements for continuous system availability. System down time or unplanned outages, even of short duration, can cost millions of dollars in lost revenue or other significant negative business impact. IBM has a strong interest in ensuring that z/OS® is not used on computer systems with which z/OS® is not fully compatible or used in ways that have the potential to undermine either the reputation of z/OS® for accuracy, data integrity, and reliability or customer acceptance of z/OS® for mission-critical applications.

C. In Developing And Promoting Its Emulator Systems, PSI Had Breached Its Software License Agreements With IBM.

- 27. In March 2004, PSI executed an ICA with IBM. A true and correct copy of PSI's ICA is attached hereto as Exhibit 1. IBM has consistently made clear to PSI that the granting of software licenses has not in any way granted PSI a patent license or any express or implied rights, licenses, or immunities under any IBM patents or other intellectual property. The ICA, by its terms, grants PSI "only the licenses and rights specified. No other licenses or rights (including licenses or rights under patents) are granted." The ICA expressly prohibits PSI from, among other things, "translating" licensed ICA Programs, including z/OS®. After executing the ICA, PSI licensed copies of z/OS® pursuant to the terms of the ICA.
- 28. PSI's emulator systems use software, which PSI refers to as firmware, to mimic IBM's ESA/390 Architecture and z/Architecture® by translating IBM software written for computer systems using those architectures into instructions that can be executed by computer systems incorporating a different architecture. As described by

20199/2002551,3

PSI, z/OS[®] (and any other zSeries[®] software to be run on the emulator system) runs on top of the PSI "firmware" layer. In this arrangement, each instruction in z/OS[®] (and any other zSeries[®] software) that is being executed on the PSI emulator system is translated into one or more Itanium[®] instructions by the PSI firmware. PSI's translated Itanium[®] instructions are then executed by the Itanium[®] processor, with the intent of producing the same result as if the z/OS[®] (or zSeries[®] software) instructions translated by the PSI firmware were instead executed on an IBM zSeries[®] server.

- 29. According to PSI, PSI's emulator systems translate what PSI calls "legacy instructions" contained in IBM's copyrighted software into what PSI calls "translated instructions." PSI's emulator systems use what PSI calls dynamic just-in-time translation, in which the object code of IBM's operating systems is translated, the translated instructions are stored or "cached" in the memory of the computer system on which the PSI emulator system is installed, and the translated instructions yielded by the emulator are executed by that computer system.
- 30. As described in U.S. Patent No. 7,092,869 ("the '869 patent") issued to Ronald N. Hilton, PSI's founder and Chief Technology Officer, "[e]ach particular legacy instruction is translated into one or more particular translated instructions for emulating the particular translated legacy instruction." As further described in the '869 patent, the so-called legacy instructions at issue are for a "legacy system" (such as an IBM computer system having an ESA/390 Architecture or z/Architecture®); "the legacy instructions are object code instructions compiled/assembled for the S/390 [or System z] system and the translated instructions are for execution in a [different] architecture." As further described in the '869 patent, PSI's emulators use "translated code for emulating" the IBM

computer system; the "native executable code" in the copyrighted IBM computer programs licensed by PSI under the ICA is "processed by the emulator . . . to produce translated code . . . for execution by the target system . . . according to an architecture different from the native architecture." As described in the '869 patent, moreover, the "legacy code translator" in PSI's emulator systems stores detailed information about the translation in translation store" and the "translated code . . . output from this cache . . . is executed" by the target computer system on which the emulator system is running. The net result, according to the '869 patent, is a "computer-implemented method for dynamic emulation of legacy instructions comprising," among other things, (a) "accessing said legacy instructions"; (b) "for each particular legacy instruction, translating the particular legacy instruction into one or more particular translated instructions for emulating the particular legacy instruction"; and (c) ultimately "executing the translated instructions to emulate execution of the legacy instructions."

31. PSI's public presentations on its emulator systems have indicated that those systems operate in the manner described in the '869 patent, and that their purpose and function is to translate IBM's object code and to store the object code translations for execution on a computer using an Itanium[®] processor. Based on PSI's public descriptions, PSI's emulator systems translate z/OS[®] into instructions that can be executed by the Itanium[®] processor in the computers on which the emulators are installed. Even if the resulting translations were accurate, and if the translated instructions in fact allowed an Itanium[®] processor to execute the translated instructions in a manner that provided performance comparable to the execution of the original IBM instructions on a zSeries[®] server, such translation of z/OS[®] is prohibited by the ICA.

D. PSI's Emulator Systems Infringe IBM Patents.

- 32. Based on the purpose and nature of PSI's emulator systems, as stated by PSI, and IBM's knowledge of emulator technology, the making, using, selling, or offering for sale of those systems necessarily infringes IBM patents, and/or will contribute to or induce infringement of those patents by users of PSI's emulator systems. IBM's conclusion that PSI's emulator systems infringe IBM's patents is not based on an examination of one of PSI's systems because IBM's request that it be permitted to conduct an examination of a PSI emulator system and its offer to discuss infringement in greater detail following such an examination have been ignored by PSI, which has instead threatened antitrust liability as a result of IBM's rejection of PSI's demands that IBM license its patents to PSI and its copyrighted software for use on PSI's emulator systems.
 - 33. The IBM patents that are infringed by PSI include the following:
 - a. On December 9, 1997, the United States Patent and Trademark

 Office ("USPTO") issued U.S. Patent No. 5,696,709 entitled "Program Controlled

 Rounding Modes" (hereinafter "the '709 patent"). A true and correct copy of the

 '709 patent is attached hereto as Exhibit 2.
 - b. On October 20, 1998, the USPTO issued U.S. Patent No.
 5,825,678 entitled "Method And Apparatus For Determining Floating Point Data
 Class" (hereinafter "the '678 patent"). A true and correct copy of the '678 patent is attached hereto as Exhibit 3.
 - c. On September 14, 1999, the USPTO issued U.S. Patent No. 5,953,520 entitled "Address Translation Buffer For Data Processing System Emulation Mode" (hereinafter "the '520 patent"). A true and correct copy of the '520 patent is attached hereto as Exhibit 4.

- d. On November 16, 1999, the USPTO issued U.S. Patent No. 5,987,495 entitled "Method and Apparatus For Fully Restoring A Program Context Following An Interrupt" (hereinafter "the '495 patent"). A true and correct copy of the '495 patent is attached hereto as Exhibit 5.
- e. On October 5, 2004, the USPTO issued U.S. Patent No. 6,801,993 entitled "Table Offset For Shortening Translation Tables From Their Beginnings" (hereinafter "the '993 patent"). A true and correct copy of the '993 patent is attached hereto as Exhibit 6.
- 34. IBM is the owner of all right, title, and interest in and to the '709, '678, '520, '495, and '993 patents by assignment, with full and exclusive right to bring suit to enforce each of these patents, including the right to recover for past infringement.
- 35. IBM may identify additional IBM patents infringed by PSI's emulator systems after IBM has an opportunity to examine a PSI emulator system.
- E. IBM Has Declined To License Its Patents To PSI And Its Copyrighted Software For Use On PSI's Emulator Systems, And PSI Has Threatened Antitrust Litigation.
- 36. PSI and IBM have met and corresponded concerning PSI's activities. IBM has advised PSI that PSI's emulator systems infringe various IBM patents, and has offered to give PSI opportunities to demonstrate that its emulator systems are non-infringing if PSI so believes. PSI has declined IBM's invitations and requests for information about, and access to, PSI's emulator systems.
- 37. IBM and PSI have met and corresponded concerning PSI's demands that IBM agree to license its patents to PSI and its copyrighted operating systems and other software for use on PSI's emulator systems. IBM has declined to provide the patent and software licenses demanded by PSI. PSI has asserted, in words or substance, that IBM's

refusal to license IBM's patents to PSI and IBM's software for use on PSI's emulator systems is somehow unlawful and damaging to PSI. As early as March 16, 2001, PSI stated in correspondence to IBM that its "major concern" was "IBM's stated decision not to license the z/Architecture at all at this point," and that PSI assumed IBM would "continue to reevaluate that position, given the potential anti-trust issues that could be raised." On October 29, 2002, PSI wrote to IBM and (a) asserted that IBM's decision not to license its software for use on PSI's systems is "not consistent with the long term IBM practice of licensing its software regardless of the implementation of the computing platform"; (b) requested licensing terms for commercial operation of IBM's software on PSI's emulator systems; and (c) stated that "each day that goes by is directly impacting our development schedule." On December 23, 2002, at a time when PSI said it was preparing "for the commercial introduction of our product line early next year," PSI wrote to IBM's President and CEO (a) criticizing IBM's decision not to license IBM's software for use on PSI's systems; (b) arguing that IBM's refusal conflicts with historical "precedent" and is "discriminatory" and "purely arbitrary"; and (c) claiming that the effect of IBM's decision is "intentionally anti-competitive" and that "our survival as a company has been placed in immediate jeopardy as a result." On February 7, 2003, PSI wrote to IBM seeking a letter of intent from IBM confirming IBM's willingness to license its software for use on PSI's emulator systems and asserting that "[t]he unexpected uncertainty on this point has severely hampered the execution of our business plans, jeopardizing the entire venture." On November 10, 2003, PSI wrote to IBM and stated that IBM's licensing position with respect to z/OS® "has severely impacted our ability to deliver a 64 bit machine" and requested reconsideration of that position. On October 5,

- 2005, PSI wrote to IBM (a) again criticizing IBM's refusal to license IBM's software to be run on PSI's emulator systems; (b) arguing that IBM's licensing position is inconsistent with IBM's "prior practices and precedents"; and (c) asserting that IBM's licensing position is "causing confusion -- both to us and to our end user customers" and "is not just causing confusion in the market" but "is causing harm to our business."
- At a meeting in New York in February 2006, PSI requested that IBM reconsider PSI's request that IBM grant PSI a patent license for PSI's emulator systems and agree to license z/OS® and other IBM software for use on PSI's emulator systems. On May 24, 2006, IBM declined PSI's request. IBM stated at that time that "IBM continues to believe that PSI's products infringe IBM's intellectual property rights" and that "we continue to see indications that PSI is engaged in infringing activity IBM has clearly articulated to PSI its belief that by developing and/or offering for sale a product that can run IBM's z/OS operating system, PSI is infringing a number of IBM patents, including IBM's z/Architecture patents. A non-exhaustive list of IBM U.S. patents potentially infringed by PSI was provided to you on August 18, 2005. To date, PSI has provided IBM with no substantive response. Instead, PSI has chosen to continue its development and marketing efforts notwithstanding IBM's rights and interests."
- 39. On June 8, 2006, PSI directed correspondence to IBM at IBM's offices in New York asserting that IBM's decision not to license its patents to PSI and not to license z/OS® to run on PSI systems was "completely unjustified." PSI asserted that IBM's position "will undoubtedly result in significant harm to both PSI and its customers" and "strongly urge[d]" IBM to reconsider its decision. In light of the history of communications between the parties, IBM reasonably construes this letter as threatening

antitrust litigation if IBM continues to decline to license its patents to PSI and its operating systems and other software for use on PSI's emulator systems.

- 40. On August 3, 2006, IBM declined PSI's request for reconsideration of its decisions not to grant PSI a patent license and not to license z/OS[®] and other software to run on PSI's emulator systems: "As we have explained, we believe that a PSI emulator that runs IBM's z/OS operating system infringes a number of IBM patents. We have repeatedly expressed this view to PSI, and you have acknowledged that PSI believes it requires patent licenses from IBM. In asking us to reconsider our decision, PSI has provided no new information. IBM would welcome the opportunity to examine one of PSI's systems and, following such an examination, would be willing to discuss PSI's infringements in greater detail." At the same time, IBM advised PSI that, "We are very concerned that, despite the fact that PSI is unlicensed to IBM's patents and has been informed that IBM will not license z/OS on PSI systems, PSI continues to make public statements that it intends to offer systems that run z/OS. IBM is extremely concerned that these statements will induce potential users of PSI systems to infringe IBM's intellectual property rights. Please ensure that PSI does not in any way represent or imply that PSI systems are authorized or eligible for a license to run the IBM z/OS operating system."
- 41. On August 9, 2006, PSI directed correspondence to IBM at IBM's offices in New York. PSI asserted that "PSI does not believe its systems infringe any patents that IBM may hold" in the fields of z/Architecture® and coupling; admitted that PSI "has not undertaken the lengthy effort and expense of a detailed infringement analysis" with respect to other IBM patents; and stated that it "was most surprised and disappointed" by

20199/2002551,3

IBM's position that it would not grant PSI a patent license. PSI further stated that, "PSI believes that IBM's current posture in dealing with PSI to be unwarranted and calculated to cause it substantial harm. It is for this reason that PSI urged IBM to reconsider its position, and does so again here." IBM reasonably construes this correspondence as threatening antitrust litigation if IBM continues to decline to license its patents to PSI and its operating systems and other software for use on PSI's emulator systems.

F. PSI's Recent Activities Have Brought The Parties' Dispute To A Head.

42. In March 2006, PSI announced that it was demonstrating and "delivering to customers today around the world" emulator systems that run IBM's z/OS® operating system. In March 2006, PSI also publicly announced that its z/Architecture® emulator system would be "generally available" in the second half of 2006. In June 2006, PSI publicly described its then-current activities as involving beta test customer placements and initial early shipment program shipments, as well as establishing a "direct and channel sales force," and "ISV relationships." In July 2006, PSI issued a press release stating that, "Later this year, PSI expects to deliver z/OS® compatible servers that use dual-core processor technology to address the performance requirements of more than 90 percent of the z/OS installed base." PSI has recently publicly demonstrated its infringing emulator system in, among other places, Baltimore, Maryland; Houston, Texas; and San Jose and San Francisco, California; identified beta customers; and stated that its emulator would be generally available in the fourth quarter of 2006. PSI has been actively marketing and offering for sale its emulator systems to potential customers, including potential customers in New York, and has publicly stated that a PSI system is installed and in use at a customer location in New York. IBM remains unwilling to license its

20199/2002551,3

patents to PSI or its software for use on PSI's emulator systems. Accordingly, the parties' dispute is now ripe.

- 43. In addition to PSI's direct activities, beginning in November 2006, one of PSI's licensees and marketing partners launched a new website trumpeting the availability of one system based on PSI's emulator systems and the imminent availability of another PSI emulator system. Following this announcement, PSI's emulator systems are now being actively marketed and offered for sale to potential customers, including potential customers in New York.
- 44. PSI (directly and/or through its licensees and marketing partners) has expressly and impliedly advised potential customers that they will be able to license IBM's mainframe operating systems and other software for use on PSI's emulator systems and has falsely stated, among other things, that (a) PSI's systems "will run" the "latest" IBM operating systems; (b) IBM software will be available for licensing for use on PSI's systems; (c) IBM will license its operating systems for use on PSI's systems in a "business as usual" manner; (d) licensing of 64-bit software from IBM is available for PSI's systems but not for a competing emulator system; (e) PSI is in discussions with IBM concerning software pricing for PSI systems and PSI will take care of software licensing issues with IBM; (f) software pricing for z/OS® will be the same as the price of that software when licensed on certain IBM machines; (g) PSI's systems have what PSI describes as "advanced partitioning capabilities that allow customers to control z/OSbased software licensing fees by isolation of individual workloads or logical server"; (h) PSI's systems will involve the use of a "[r]educed Z image" and therefore "qualify" for lower IBM software licensing rates for z/OS® and other IBM software; and has further

20199/2002551,3 20

stated that (i) their lawyers "are ready for anything" and are prepared to sue IBM over a refusal to license IBM software for use on PSI's systems or the imposition by IBM of higher licensing fees for software used on PSI's systems than for software licensed for use on allegedly comparable IBM mainframe systems. As PSI reasonably expected, these statements and threats have been communicated to IBM.

- 45. As a result of these and other activities, an article appeared in a trade publication on September 26, 2006 entitled "A Joint Assault on the Mainframe Hardware Market." The article, which was subsequently posted on PSI's website, described PSI as having a series of computers "that can load and run software written for the [IBM] System z9 and its antecedents" and that are compatible with "IBM's current 64-bit processor architecture." The article asserts that PSI has "rights to obtain IBM software licenses, and the legal know-how required to preserve and extend these rights," and suggests that with the "commercial marketing of PSI systems," IBM "will supply and support its full range of mainframe software products."
- 46. In addition, and also as a result of these and other activities, IBM has begun to receive customer communications suggesting confusion in the market with respect to customers' ability to use IBM software in conjunction with PSI's emulator systems.

COUNT ONE

(Breach of Contract)

- 47. IBM realleges and incorporates herein the allegations of paragraphs 1 through 46 of this Complaint as if fully set forth herein.
- 48. PSI has licensed copies of z/OS® and other IBM software pursuant to the terms of the ICA.

- 49. The ICA is, by its terms, governed by New York law.
- 50. IBM has fully performed all of its obligations under its license agreements with PSI.
- 51. The ICA expressly prohibits PSI from, among other things, "translating" licensed ICA Programs, including z/OS[®].
- 52. According to PSI, PSI's emulator systems translate what PSI calls "legacy instructions" contained in z/OS® into what PSI calls "translated instructions." Based on PSI's public descriptions, PSI's emulator systems translate IBM's copyrighted software into instructions that can be executed by the Itanium® processor in the computers on which the emulators are installed.
- 53. PSI has used IBM's z/OS® operating system licensed pursuant to the terms of the ICA in conjunction with PSI's emulator systems, and PSI's emulator systems have translated z/OS® in violation of the express prohibitions of the ICA. By so doing, PSI has breached its license agreements with IBM.
- 54. As a result of PSI's activities, IBM has been damaged in an amount to be proved at trial.
- 55. As a result of PSI's breaches of its license agreements with IBM, IBM is entitled, pursuant to the terms of the ICA and New York law, to terminate the ICA and to terminate PSI's authorization to use the licensed software.

COUNT TWO

(Infringement of the '709 Patent)

56. IBM realleges and incorporates herein the allegations of paragraphs 1 through 55 of this Complaint as if fully set forth herein.

20199/2002551,3 22

- 57. In violation of 35 U.S.C. § 271, PSI has infringed and is continuing to infringe, literally and/or under the doctrine of equivalents, the '709 patent by practicing one or more claims in the '709 patent in the manufacture, use, offering for sale, and sale of PSI's emulator systems.
- 58. In violation of 35 U.S.C. § 271, PSI has infringed and is continuing to infringe the '709 patent by contributing to or actively inducing the infringement by others of the '709 patent by providing PSI's emulator systems.
 - 59. PSI has willfully infringed the '709 patent.
- 60. PSI's acts of infringement of the '709 patent will continue after the service of this Complaint unless enjoined by the Court.
- 61. As a result of PSI's infringement, IBM has suffered and will suffer damages.
- 62. IBM is entitled to recover from PSI the damages sustained by IBM as a result of PSI's wrongful acts in an amount subject to proof at trial.
- 63. Unless PSI is enjoined by this Court from continuing its infringement of the '709 patent, IBM will suffer additional irreparable harm and impairment of the value of its patent rights. Thus, IBM is entitled to an injunction against further infringement.

COUNT THREE

(Infringement of the '678 Patent)

- 64. IBM realleges and incorporates herein the allegations of paragraphs 1 through 63 of this Complaint as if fully set forth herein.
- 65. In violation of 35 U.S.C. § 271, PSI has infringed and is continuing to infringe, literally and/or under the doctrine of equivalents, the '678 patent by practicing

one or more claims in the '678 patent in the manufacture, use, offering for sale, and sale of PSI's emulator systems.

- 66. In violation of 35 U.S.C. § 271, PSI has infringed and is continuing to infringe the '678 patent by contributing to or actively inducing the infringement by others of the '678 patent by providing PSI's emulator systems.
 - 67. PSI has willfully infringed the '678 patent.
- 68. PSI's acts of infringement of the '678 patent will continue after the service of this Complaint unless enjoined by the Court.
- 69. As a result of PSI's infringement, IBM has suffered and will suffer damages.
- 70. IBM is entitled to recover from PSI the damages sustained by IBM as a result of PSI's wrongful acts in an amount subject to proof at trial.
- 71. Unless PSI is enjoined by this Court from continuing its infringement of the '678 patent, IBM will suffer additional irreparable harm and impairment of the value of its patent rights. Thus, IBM is entitled to an injunction against further infringement.

COUNT FOUR

(Infringement of the '520 Patent)

- 72. IBM realleges and incorporates herein the allegations of paragraphs 1 through 71 of this Complaint as if fully set forth herein.
- 73. In violation of 35 U.S.C. § 271, PSI has infringed and is continuing to infringe, literally and/or under the doctrine of equivalents, the '520 patent by practicing one or more claims in the '520 patent in the manufacture, use, offering for sale, and sale of PSI's emulator systems.

- 74. In violation of 35 U.S.C. § 271, PSI has infringed and is continuing to infringe the '520 patent by contributing to or actively inducing the infringement by others of the '520 patent by providing PSI's emulator systems.
 - 75. PSI has willfully infringed the '520 patent.
- 76. PSI's acts of infringement of the '520 patent will continue after the service of this Complaint unless enjoined by the Court.
- 77. As a result of PSI's infringement, IBM has suffered and will suffer damages.
- 78. IBM is entitled to recover from PSI the damages sustained by IBM as a result of PSI's wrongful acts in an amount subject to proof at trial.
- 79. Unless PSI is enjoined by this Court from continuing its infringement of the '520 patent, IBM will suffer additional irreparable harm and impairment of the value of its patent rights. Thus, IBM is entitled to an injunction against further infringement.

COUNT FIVE

(Infringement of the '495 Patent)

- 80. IBM realleges and incorporates herein the allegations of paragraphs 1 through 79 of this Complaint as if fully set forth herein.
- 81. In violation of 35 U.S.C. § 271, PSI has infringed and is continuing to infringe, literally and/or under the doctrine of equivalents, the '495 patent by practicing one or more claims in the '495 patent in the manufacture, use, offering for sale, and sale of PSI's emulator systems.

- 82. In violation of 35 U.S.C. § 271, PSI has infringed and is continuing to infringe the '495 patent by contributing to or actively inducing the infringement by others of the '495 patent by providing PSI's emulator systems.
 - 83. PSI has willfully infringed the '495 patent.
- 84. PSI's acts of infringement of the '495 patent will continue after the service of this Complaint unless enjoined by the Court.
- 85. As a result of PSI's infringement, IBM has suffered and will suffer damages.
- 86. IBM is entitled to recover from PSI the damages sustained by IBM as a result of PSI's wrongful acts in an amount subject to proof at trial.
- 87. Unless PSI is enjoined by this Court from continuing its infringement of the '495 patent, IBM will suffer additional irreparable harm and impairment of the value of its patent rights. Thus, IBM is entitled to an injunction against further infringement.

COUNT SIX

(Infringement of the '993 Patent)

- 88. IBM realleges and incorporates herein the allegations of paragraphs 1 through 87 of this Complaint as if fully set forth herein.
- 89. In violation of 35 U.S.C. § 271, PSI has infringed and is continuing to infringe, literally and/or under the doctrine of equivalents, the '993 patent by practicing one or more claims in the '993 patent in the manufacture, use, offering for sale, and sale of PSI's emulator systems.

20199/2002551,3 26

- 90. In violation of 35 U.S.C. § 271, PSI has infringed and is continuing to infringe the '993 patent by contributing to or actively inducing the infringement by others of the '993 patent by providing PSI's emulator systems.
 - 91. PSI has willfully infringed the '993 patent.
- 92. PSI's acts of infringement of the '993 patent will continue after the service of this Complaint unless enjoined by the Court.
- 93. As a result of PSI's infringement, IBM has suffered and will suffer damages.
- 94. IBM is entitled to recover from PSI the damages sustained by IBM as a result of PSI's wrongful acts in an amount subject to proof at trial.
- 95. Unless PSI is enjoined by this Court from continuing its infringement of the '993 patent, IBM will suffer additional irreparable harm and impairment of the value of its patent rights. Thus, IBM is entitled to an injunction against further infringement.

COUNT SEVEN

(Declaratory Judgment)

- 96. IBM realleges and incorporates herein the allegations of paragraphs 1 through 95 of this Complaint as if fully set forth herein.
- 97. There is a real and actual controversy between IBM and PSI concerning IBM's refusal to license its patents to PSI and its copyrighted mainframe software for use on PSI's emulator systems. IBM's refusal to license IBM's patents to PSI and IBM's copyrighted operating systems and other software for use on PSI's emulators does not violate the antitrust laws because, among other reasons, the antitrust laws recognize IBM's right, under the patent and copyright laws, to refuse to license its patents and

copyrights. PSI's emulator systems infringe IBM patents, and the antitrust law specifically recognizes a copyright holder's right to decline to license copyrighted software for use on a system that infringes the copyright holder's patents. Thus, this controversy requires resolution of substantial questions of patent law and involves the same evidence of patent infringement by PSI that forms the basis for IBM's claims for affirmative relief under the patent laws. In addition, IBM has a strong interest in ensuring that z/OS® is not used on computer systems with which z/OS® is not fully compatible or used in ways that have the potential to undermine either the reputation of z/OS® for accuracy, data integrity, and reliability or customer acceptance of z/OS® for mission-critical applications.

- 98. Since PSI's emulator systems first came to IBM's attention, IBM has concluded, based on their purpose and nature and on IBM's knowledge of emulator technology, that those systems will necessarily infringe IBM patents. PSI has not ameliorated IBM's reasonable, good faith concerns that PSI's emulator systems infringe IBM patents.
- 99. Nevertheless, PSI (directly and/or through its licensees and marketing partners) has (a) demanded that IBM license IBM's patents to PSI and IBM's copyrighted mainframe operating systems and other software for use on PSI's emulator systems; (b) expressly and implicitly asserted that a refusal by IBM to license its patents, operating systems, and other software is anti-competitive and in violation of the antitrust laws; (c) asserted to IBM customers that purchasers of PSI's emulator systems will be able to license IBM's copyrighted operating systems and other copyrighted IBM software for the same license prices as users of allegedly comparable IBM mainframe systems;

20199/2002551,3 28

- (d) acknowledged confusion in the market over this issue; (e) has raised the specter of substantial alleged harm to PSI from IBM's decision not to license its patents and copyrighted software; and (f) advised IBM customers (in ways that it reasonably expected would be communicated to IBM) that their lawyers "are ready for anything" and are prepared to sue IBM.
- 100. IBM has refused to agree to license its patents to PSI and its copyrighted operating systems and other software for use on PSI's emulator systems despite PSI's demands because, among other reasons, IBM has no obligation to do so, and IBM is unwilling to allow its software to be run on an emulator system that infringes IBM's patents. PSI's emulator systems infringe IBM patents, and IBM has so advised PSI. In response to IBM's stated concerns about patent infringement, PSI has asserted, without providing IBM with any supporting information or any opportunity to examine a PSI emulator system, that PSI's emulators do not infringe certain patents directed to aspects of z/Architecture® identified by IBM as likely to be infringed by PSI's emulators. In light of PSI's public statements concerning the purpose and capabilities of its emulators, and IBM's knowledge of emulator technology, PSI's unsupported assertion is wrong. PSI has provided no assurances whatsoever concerning a larger group of patents identified by IBM as potentially infringed by PSI's emulator systems and has instead requested that IBM license PSI under IBM's patent portfolio -- an action that IBM is unwilling to take. Nevertheless, PSI (directly and through its licensees and marketing partners) has used in various public forums and is marketing and offering for sale emulator systems that necessarily infringe IBM's patents. IBM and PSI therefore have a real and actual controversy concerning the issue of patent infringement by PSI's emulator systems.

- 101. IBM has told PSI that IBM will not license its patents to PSI or its operating systems and other software for use on PSI's emulator systems. PSI has asserted that IBM's refusal to license IBM's patents, operating systems, and other software is anticompetitive, violates the antitrust laws, and is causing confusion in the market and substantial damage to PSI's business. PSI is wrong. The antitrust laws do not restrict IBM's rights, under the patent and copyright laws, to refuse to license IBM's lawfully acquired patents and copyrights. Further, it is IBM's reasonable, good faith belief that PSI's emulator systems infringe IBM's patents. That belief, standing alone, is a wellrecognized and legally sufficient basis for IBM's decision to decline to license its operating systems and other software, as the antitrust laws do not require IBM to license its copyrighted software for use on a computer system that infringes IBM's patents. Nevertheless, IBM has reasonably construed PSI's statements (and statements made by one of PSI's licensees and marketing partners) as portending inevitable and imminent litigation over the propriety of IBM's patent and software licensing decisions. Judicial resolution of the parties' disputes is now required.
- 102. Litigation over the propriety of IBM's licensing position under the antitrust laws is now inevitable and imminent, in light of, among other things, (a) PSI's demands that IBM agree to license its patents to PSI and its copyrighted operating systems and other software for use on PSI's emulator systems; (b) PSI's baseless assertions that IBM's decision not to license its patents and software is anti-competitive and in violation of the antitrust laws; (c) PSI's statements concerning the impact on PSI's business of IBM's refusal to license its patents to PSI and its operating systems and other software for use on PSI emulator systems; (d) PSI's recent requests that IBM reconsider

its refusal to license its operating systems and other software for use on PSI's emulator systems and IBM's decision not to do so; and (e) statements by PSI (directly and/or through its licensees and marketing partners) that their lawyers "are ready for anything" and are prepared to sue IBM over IBM's licensing decisions. IBM and PSI have a real and actual controversy over IBM's refusal to license its patents to PSI and its copyrighted operating systems and other software for use on PSI's emulator systems.

103. IBM is entitled to a declaratory judgment that IBM's refusal to license its patents to PSI and its copyrighted operating systems and other software for use on PSI's emulator systems is not anti-competitive and does not violate the antitrust laws.

PRAYER FOR RELIEF

WHEREFORE, IBM prays for the following relief:

- a. That this Court declare that IBM is entitled to terminate the ICA and all software licenses previously granted to PSI under the terms of the ICA as a result of PSI's breaches of the terms of the ICA;
- b. That PSI, its officers, agents, servants, employees, and those persons acting in active concert or in participation with it be enjoined from further infringement of the '709 patent, the '678 patent, the '520 patent, the '495 patent, and the '993 patent pursuant to 35 U.S.C. § 283;
- c. That this Court declare that IBM's refusal to license its patents to PSI and its copyrighted operating systems and other software for use on PSI's emulator systems is not anti-competitive and does not violate the antitrust laws;
- d. That PSI be ordered to pay damages adequate to compensate IBM for PSI's infringement of the '709 patent, the '678 patent, the '520 patent, the '495 patent, and

the '993 patent pursuant to 35 U.S.C. § 284 and adequate to compensate IBM for PSI's breaches of the IBM license agreements pursuant to which PSI has licensed IBM software for purposes of its emulator development program;

- e. That PSI be ordered to pay treble damages pursuant to 35 U.S.C.
- § 284;
- f. That PSI be ordered to pay attorneys' fees pursuant to 35 U.S.C.
- § 285;
- g. That PSI be ordered to pay prejudgment interest;
- h. That PSI be ordered to pay all costs associated with this action; and
- i. That IBM be granted such other and additional relief as the Court or a jury may deem just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, IBM hereby demands a trial by jury as to all issues so triable.

DATED: New York, New York

November 29, 2006

QUINN EMANUEL URQUHART OLIVER & HEDGES, LLP

By: Olld J. Werder of

Richard I. Werder, Jr. (RW-5601)

Edward J. DeFranco (ED-6524)

David L. Elsberg (DE-9215)

51 Madison Avenue

22nd Floor

New York, New York 10010-1601

(212) 849-7000

Frederick A. Lorig

865 S. Figueroa Street

Los Angeles, California 90017

(213) 443-3000

Attorneys for Plaintiff

International Business Machines Corporation