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IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF UTAH

THE SCO GROUP, INC.

Plaintiff/Counterclaim Defendant

vs.

INTERNATIONAL BUSINESS MACHINES CORPORATION

Defendant/Counterclaim Plaintiff

DECLARATION OF JOHN HARROP IN SUPPORT OF SCO'S OPPOSITION TO IBM'S MOTION FOR PARTIAL SUMMARY JUDGMENT

Case No. 2:03-CV-0294 DAK

Honorable Dale A. Kimball Magistrate Judge Brooke C. Wells

DECLARATION OF JOHN HARROP

- 1. I am a member of the law firm Andrews Kurth LLP, co-counsel for Plaintiff
 The SCO Group, Inc. ("SCO") in the above-captioned action. Unless otherwise indicated, I
 make this Declaration based upon personal knowledge.
- 2. I submit this Declaration in support of SCO's Memorandum in Opposition to Defendant/Counterclaim-Plaintiff IBM's Cross-Motion for Partial Summary Judgment on Its Claim for Declaratory Judgment of Non-Infringement, dated May 18, 2004.
- 3. I explain below why, if IBM's claim for declaratory judgment of non-infringement (the "Tenth Counterclaim") remains in the case, SCO needs substantial discovery on the Tenth Counterclaim in order to discover facts essential to justify opposition to IBM's Motion. The exhibits I refer to herein are in the appendices submitted with SCO's Opposition Memorandum.

Background

- 4. In 1985, SCO's predecessor-in-interest AT&T entered into license agreements with IBM and Sequent (together, "IBM") that permitted IBM to access and use the constituent source code of the UNIX computer operating system in order to develop IBM's own versions of the UNIX operating system.
- 5. The principal basis for SCO's claims in this matter has always been that the license agreements unambiguously governed IBM's right to use and transfer the source code in the operating systems, called AIX, and Dynix, ptx, and Dynix/ptx, which IBM developed with access to UNIX.

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- 6. Until February 2004, SCO had not asserted any claim for copyright infringement in this matter. Rather, SCO had asserted breach-of-contract and tort claims arising out of IBM's use and transfer of UNIX material, including by contributing source code from AIX, Dynix, ptx and Dynix/ptx into another computer operating system, called Linux, developed in the 1990s.
- 7. SCO's position has always been that in order to prove that IBM breached the unambiguous license agreements, SCO need *not* prove that any source code from any version of UNIX has been copied into any version of Linux, and need *not* prove that IBM has violated any SCO copyright. For example, because the license agreements do not permit IBM to lease or transfer any parts of the AIX, Dynix, ptx, and Dynix/ptx programs, IBM has violated the agreements by making source code in AIX, Dynix, ptx, and Dynix/ptx publicly available.
- 8. SCO first alleged a claim for copyright infringement in its Second Amended Complaint, filed on February 27, 2004. The primary basis for that copyright claim is that IBM has continued to use and distribute AIX, Dynix, ptx, and Dynix/ptx after SCO terminated the license agreements.
- 9. SCO has not brought any claim that IBM contributed source code to Linux in violation of any SCO copyright. SCO has not asserted here any claim that any third party has contributed any source code to Linux in violation of any SCO copyright. SCO has not brought any copyright claim against IBM in this action in regard to any of IBM's numerous activities relating to Linux.
- 10. On March 29, 2004, however, IBM filed its Second Amended Counterclaims and concluded in the Tenth Counterclaim: "IBM is entitled to a declaratory judgment pursuant

to 28 U.S.C. § 2201 that IBM does not infringe, induce the infringement of, or contribute to the infringement of any SCO copyright through its Linux activities, including its use, reproduction and improvement of Linux, and that some or all of SCO's purported copyrights in UNIX are invalid and unenforceable."

- On April 23, 2004, SCO filed a Motion to Dismiss or Stay the Tenth Counterclaim. SCO explained that the Tenth Counterclaim "raises issues separate and apart from the primary breach of contract and other direct claims and counterclaims in this case." (SCO Motion to Dismiss or Stay the Tenth Counterclaim ¶ 2.) SCO explained that its Second Amended Complaint "does not contain a claim against IBM for copyright infringement arising out of its use, reproduction or improvement of Linux." (SCO Opening Mem. ¶ 3.)
- 12. SCO also asserted in support of its Motion to Dismiss or Stay the Tenth Counterclaim that factual and legal issues raised in the Tenth Counterclaim are already at issue in a pending federal action that SCO brought before IBM filed the Tenth Counterclaim. In that action (the "AutoZone action"), SCO had brought claims under the Copyright Act on the basis of AutoZone's use of Linux as its operating system (that is, as an "end-user" of Linux).
- 13. On May 18, 2004, IBM filed both its opposition to SCO's Motion to Dismiss or Stay the Tenth Counterclaim and its instant motion for summary judgment.

The Nature and Timing of IBM's Tenth Counterclaim

14. On June 9, 2004, further to SCO's pending Motion to Stay or Dismiss the Tenth Counterclaim and to IBM's concession during a hearing before the Court on June 8, 2004 that the Tenth Counterclaim is a permissive counterclaim under Fed. R. Civ. P. 13, IBM submitted a letter to the Court in which IBM withdrew its June 8 concession and argued that the Tenth

Counterclaim is a compulsory counterclaim. IBM made the same argument in its Supplemental Memorandum in Opposition to SCO's Motion to Dismiss or Stay Count Ten, dated June 25, 2004.

- 15. I believe it is undisputed that the significance of the distinction is that the Court may dismiss a permissive counterclaim that would unduly complicate the litigation. Dismissal is the relief SCO seeks in its pending Motion to Dismiss or Stay the Tenth Counterclaim.
- 16. IBM's Tenth Counterclaim is permissive because, as SCO has asserted, it is not one that "arises out of the same transaction or occurrence that is the subject matter of the opposing party's claim." Fed. R. Civ. P. 13(a). SCO will address the issue further in its Reply Memorandum in support of SCO's Motion to Dismiss or Stay the Tenth Counterclaim, which is due July 23, 2004.
- The inappropriateness of IBM's Tenth Counterclaim and the fact that SCO's Motion to Dismiss or Stay the Tenth Counterclaim is still pending support SCO's opposition to IBM's Motion.
- 18. IBM argues that the question of the source code in Linux to which SCO claims any "rights" was a subject of discovery before IBM filed its Tenth Counterclaim and that for purposes of opposing IBM's Motion, SCO may not cite facts that were not included in discovery responses SCO made in January and April 2004.
- 19. By bringing the claims it did, SCO has specifically avoided the need for the broad and time-consuming discovery necessary to determine (by way of example) the full scope of IBM's numerous activities relating to Linux, the source code thousands of third parties had contributed to Linux, the origins of the source code they contributed, the ways in and extent to

which thousands of end-users use Linux, and all of the other discovery necessary to give SCO an opportunity to discover facts essential to oppose IBM's Tenth Counterclaim. (*See* paragraphs 41-75 below.)

- 20. The necessary and foreseeable effect of IBM's Tenth Counterclaim would be to introduce the substantial issues discussed in paragraph 19 above into the discovery process. The discovery that the Tenth Counterclaim foreseeably entails is inconsistent with IBM's repeated assertion that it is SCO who seeks "delay" in this litigation.
- In addition, any suggestion that SCO could have obtained the facts essential to justify opposition to IBM's Motion based on the discovery to date is particularly unreasonable given that IBM has not adequately or fully responded to discovery SCO propounded over a year ago. (See paragraphs 76-90, below.)
- 22. Further, SCO has not purported to have identified in discovery, nor has it certified that it has identified, all of the source code in Linux to which SCO claims *any* "rights." Indeed, at the time that IBM propounded its discovery requests, the question of the copyrights SCO has in source code in Linux was not at issue in the litigation. At that time, there was no copyright claim in the case at all; SCO had not even brought its narrow copyright claim.
- 23. It is true (as IBM asserts) that the Magistrate Judge ordered SCO to respond to certain requests for discovery to which SCO had objected, but it is not true (as IBM suggests) that the Magistrate Judge ordered SCO to produce -- let alone on pain of entry of summary judgment on a claim not yet brought -- anything more than what SCO had reasonably been able to uncover at the time the discovery responses were due.

The Scope of IBM's Tenth Counterclaim

- 24. IBM further argues that, limited to its discovery responses in January and April 2004, there are no facts SCO can present to create any genuine issue of material fact and IBM therefore is entitled to the declaration it seeks in its Tenth Counterclaim. SCO argues in its opposition memorandum that IBM's motion is nothing more than a request for sanctions. Even if the Court finds otherwise, IBM's argument begs the question of the full scope of its "activities relating to Linux," which is an issue on which SCO has taken little discovery.
- 25. In his declaration submitted with IBM's motion for summary judgment, Daniel Frye (the co-founder and present director of IBM's Linux Technology Center) enumerates several of IBM's activities relating to Linux:
 - -- IBM has contributed source code to Linux (Frye Decl. ¶ 5);
 - -- "IBM offers Linux training and support, applications testing, technical advice and a hands-on environment in which to evaluate Linux and Linux-based applications" (*Id.* ¶ 5);
 - -- "IBM has many Linux-compatible offerings: mainframes and servers that run Linux; memory solutions for Linux environments; a broad range of Linux-compatible software offerings; services that assist companies in deployment of Linux-based computing environments, migration of database applications and data to Linux systems, support for Linux-based cluster computing, server consolidation, and a 24-hour technical engineering support line." (*Id.* ¶ 7);

- "In connection with its Linux activities, IBM reproduces Linux and makes Linux available to others, both in developing and providing hardware, software and services for customers, and for other, internal business purposes" (Id. ¶ 8); and
- "many IBM employees -- particularly those who work in the IBM Linux Technology Center -- use Linux as their platform for day-to-day business computing, running office productivity applications, developing software (including Linux itself), and exchanging e-mail" (Id. ¶ 9).
- 26. SCO submits that certain facts are clear from the foregoing description of (at least some of) IBM's activities relating to Linux:
 - -- Mr. Frye makes no representation that he has identified all of the activities relating to Linux in which IBM engages;
 - With respect to those activities he has enumerated, Mr. Frye does not describe any of them in any significant level of detail;
- With respect to several of those activities Mr. Frye has enumerated, IBM may be violating SCO's copyrights in UNIX material whether or not that material is in Linux.
 SCO cannot obtain information on the foregoing points without beginning and taking discovery with respect to IBM's Tenth Counterclaim (including, as just one example, the deposition of Mr. Frye).
- 27. Discovery regarding all of IBM's Linux-related activities would be substantial and time consuming. There is no question that IBM's sweeping Tenth Counterclaim would necessarily pull into this litigation those issues. That is one reason SCO believes the Court should not exercise jurisdiction over the Tenth Counterclaim. If the Court does exercise

jurisdiction, however, SCO is entitled to explore such subject matter to discover facts essential to oppose the Tenth Counterclaim.

Satisfaction of Rule 56(f)

- My understanding is, at least in cases where the parties have taken discovery on the claim that is the subject of a summary judgment motion, under Fed. R. Civ. P. 56(f), the non-moving party must identify the probable facts not available and what steps have been taken to obtain these facts, and must demonstrate how additional time will enable him to rebut the moving party's allegations of no genuine issue of fact.
- 29. To justify opposition to IBM's Cross Motion -- that is, to contend that IBM is not entitled to a declaration of non-infringement with respect to all of its activities relating to Linux -- SCO must first be able to identify all of IBM's activities relating to Linux. Assuming a scenario in which IBM will argue for an entitlement to a declaration of non-infringement with respect to as many activities relating to Linux as possible. SCO must have discovery to identify IBM's activities relating to Linux as a threshold matter.
- 30. As I explain below, if IBM's Tenth Counterclaim remains in the case, SCO should be entitled to begin and take substantial discovery on the Counterclaim, pursuant to Rule 56(f). Where I lack personal knowledge of the subject matter at issue, I refer the Court to the Declaration of Christopher Sontag ("Sontag Decl."), Senior Vice President and General Manager of SCO, submitted with SCO's Motion for Continuance Pursuant to Rule 56(f), and the Declaration of Sandeep Gupta ("Gupta Decl."), Director of Engineering, The SCO Group, Inc., Murray Hill, New Jersey, submitted with SCO's Opposition Memorandum.

The Nature of the Uncompleted Discovery

- 31. SCO intends to seek evidence of facts essential to justify opposition to IBM's Tenth Counterclaim in several ways. Evidence of line-for-line duplication of UNIX source code in Linux source code is only part of the relevant evidence necessary for SCO to oppose IBM's Tenth Counterclaim.
- 32. There are inherent obstacles in identifying all line-for-line similarities between two computer operating systems. Accordingly, other means of identifying copying between computer operating systems, and of the modification or derivation of source code from one operating system into the source code of another operating system, are crucial tools for discovering relevant evidence.
- 33. It is public knowledge that in contrast to UNIX, AIX, Dynix, ptx and Dynix/ptx, the Linux operating system was not developed under the control of any single entity or corporation. In 1991 a Finish college student named Linus Torvalds began composing an operating system. In his classes, Mr. Torvalds had been studying an operating system that one of his professors (having received an educational license to do so) based on and derived from UNIX.
- 34. Mr. Torvalds posted the material about the operating system on the Internet for comment. The development of the operating system thereafter became in effect a group project in which Mr. Torvalds and his delegates made final determinations about which suggestions from numerous third parties, many of whom are anonymous, to incorporate. The kernel of the operating system that resulted came to be known as Linux. According to IBM, IBM and thousands of third parties have contributed source code to Linux.

Discovery Concerning IBM's "Activities Relating to Linux"

- 35. For SCO to discover facts essential to its opposition to IBM's requested declaration, SCO needs to pursue discovery to identify and determine the scope of IBM's "activities relating to Linux."
- 36. SCO indisputably has not taken, and has not had the opportunity significantly to take, discovery even to identify all of IBM's "activities relating to Linux," let alone the nature and extent of such activities.
- 37. IBM's own public descriptions of the enormous extent of its worldwide Linux-related activities reveals the broad scope of discovery the Tenth Counterclaim would entail. For example:
 - As of a year ago, "The company has 250 developers working on 29 separate
 Linux projects worldwide, according to Ken King, director of technical strategy from
 I.B.M.'s software group" ("No Concession from IBM In Linux Fight," *New York Times*,
 June 14, 2003 (Exh. 58)); and
 - On August 4, 2003, IBM issued the following press release: "IBM Global Services offers the industry's most comprehensive portfolio of Linux consultive and support offerings, from planning and design, to implementation and technical support. IBM consultants skilled in Linux are available worldwide to help customers design, build, enhance and operate their Linux solutions" (Exh. 55).
- 38. In light of published reports, SCO reasonably believes that it would be entitled to discovery regarding subject matter such as the following:

- -- IBM is spending billions of dollars each year in an effort to make Linux the world's most popular computer operating system. In 2001, IBM granted \$1 billion for the vice president of technology and strategy at IBM to build a Linux business.
- -- In 2003 IBM's Linux-related revenues grew 50% to more than \$2 billion. IBM's mainframe hardware business grew 7% to just over \$3 billion; that growth is principally attributable to Linux, which shipped on 20% of the mainframe support IBM delivered in 2003.
- -- IBM is helping at least hundreds of third parties migrate their computers off of other operating systems and onto the Linux operating system. Since 2001, IBM has trained at least 3000 employees in Linux in order to launch the practice to help customers migrate to Linux.
- -- More that 12,000 IBM employees currently devote at least part of their time to one or more activities relating to Linux. IBM uses Linux in its own data centers. Linux now runs on more than 3400 servers inside IBM.
- -- IBM is using Linux to help IBM win business. For example, IBM generates substantial consulting fees for installing and customizing Linux-based hardware and software for clients. IBM has been helping companies transfer their software applications to run on a Linux based system.
- -- IBM has created 45 Linux technology centers in 12 countries, where experienced engineers with backgrounds designing IBM's own operating systems, including AIX, contribute code to Linux.

(See "Kill Bill," by Daniel Lyons, at www. forbes.com (Exh. 52).)

- 39. Other published reports also indicate that IBM's Linux-related activities have grown and expanded and continue to do so -- which, if true, would make it even more unreasonable to grant IBM's request for a declaration regarding all such Linux-related activities even more inconceivable. For example:
 - -- IBM earned \$1 billion in Linux-based revenues in 2002 -- more than double its revenues for 2001 ("The Big Guys Latch Onto Linux," *Business Week*, March 3, 2003 (Exh. 38));
 - -- IBM believes that Linux is maturing into a software standard that could be adopted more widely. IBM endorses analyses expecting the Linux market to grow from \$2 billion to more than \$5 billion in 2006 ("IBM Clinches Security Certification for Linux," *Forbes*, Aug. 5, 2003) (Exh. 44));
 - -- IBM issued a press release on January 19, 2004 stating: "IBM today announced new programs and supporting classes to help Business Partners and customers move from the legacy Microsoft Windows NT operating system to Linux, the fastest growing server operating system in the word" (Exh. 45);
 - -- IBM stated in a press release issued on March 16, 2004: "IBM today announced new partners, programs and incentives that are helping to fuel Linux adoption and growth among small-to-medium-sized businesses" (Exh. 49);
 - On June 6, 2004, the vice president of technology and strategy at IBM was quoted as saying: "Linux is helping us win big business," and "If you become convinced that something is going to happen whether you like it or not, you are far better off embracing

- it" ("Kill Bill," by Daniel Lyons, at www. forbes.com/forbes/2004/0607/086_print.html (Exh. 52).)
- 40. There is little question that discovery regarding subject matters such as the foregoing would be substantial and time consuming. There is no legitimate question, however, that IBM's Tenth Counterclaim necessarily would pull into this litigation such subject matter.

Discovery to Determine Contributions to Linux

- 41. As a result of how Linux evolved, there is no "road map" that will allow SCO to trace the migration of UNIX code into Linux. (Sontag Decl. ¶ 57.) One principal way for SCO to discover at least some of the facts essential to oppose IBM's Tenth Counterclaim is to take discovery to determine who made contributions of source code to Linux.
- 42. Discovery regarding who made contributions of source code to Linux, and what contributions they made, is relevant to IBM's Tenth Counterclaim. SCO would seek to prove (for example) that IBM had access to SCO's copyrighted material and used the same or substantially similar material in AIX, Dynix, ptx, and/or Dynix/ptx, and/or contributed the same or substantially similar material to Linux.
- 43. To the best of SCO's knowledge, there is no existing list of all of the contributors of source code into Linux. To list Linux contributors, SCO must review the Linux change log. In some cases, the contributors are identified in the list by either full name, e-mail address, or a single name. The change log contains incorrect data, obsolete data, nicknames, and pseudonyms for authors. Further, the change log is incomplete and does not list many Linux contributors. SCO has initiated this review of the change log and created a partial list of Linux

contributors. (Sontag Decl. ¶ 57). The list further demonstrates the need for additional discovery.

- In order to seek to depose a contributor identified by e-mail, SCO would have to assume the e-mail address is still current, send an e-mail to the contributor, and hope that he or she responds, and does so honestly.
- SCO could not reasonably be expected to seek to depose a contributor identified only by full name, as SCO has no idea where the person lives.
- -- Nor could SCO reasonably be expected to seek to depose a contributor identified only by a single name.
- 44. SCO does not intend to depose thousands of contributors worldwide to determine who made material contributions to Linux. Instead, SCO seeks discovery to pursue the following, reasonable steps:
 - Determine what third parties IBM has partnered with to develop Linux and what work those parties have done. Many of these arrangements are not in the public domain, particularly as to the details of the partnering, such as which party makes what contribution, the motivation for the contribution, and the starting and ending code versions that resulted from the partnership. This discovery will also help SCO identify specific code authors, who can then be deposed.
 - Take discovery from Mr. Torvalds concerning his knowledge about the contributors and contributions to Linux since its inception, and the maintenance of any records about the development history of Linux. Mr. Torvalds is expected to have

detailed records of these contributors and their contributions, material that is not publicly available.

- -- Take discovery from individuals (some of whose identities SCO knows)
 responsible for maintaining the Linux operating system (so-called "kernel maintainers").
 Kernel maintainers take responsibility for approving and including patches for Linux and should have a wealth of information on who has contributed what code to the various
 Linux kernels over the years.
- 45. Several private groups also have made major contributions to Linux, so SCO should also be permitted adequate time to identify and take discovery from these entities.

Depositions of Contributors to Linux Are Essential

- 46. SCO seeks to discover facts essential to oppose IBM's Tenth Counterclaim by deposing the persons and entities that contributed source code to any version of Linux. If company had compiled Linux, for example, SCO should be permitted to depose the principal employees who compiled the operating system. This is an especially important form of discovery that will, SCO believes, lead to the discovery of admissions of copying of (among other things) source code, structure and sequence, and/or the preparation of a derivative work by such contributors.
- 47. SCO has not had the opportunity to depose *any* of the contributors of *any* source code into *any* version of Linux -- much less the major contributors of source code -- and therefore has not had any opportunity to discover admissions highly relevant to IBM's Tenth Counterclaim. Indeed, SCO has not had the opportunity to depose even the person (Mr. Torvalds) who is acknowledged to have compiled the first versions of Linux -- and who

indisputably did so after having studied an operating system I believe was expressly based on and derived from UNIX.

- 48. Nor has SCO had the opportunity to depose *any* of the kernel maintainers. Mr. Torvalds and the kernel maintainers (and there have been numerous such individuals since at least the mid-1990s) are likely to be able to help identify who contributed source code to Linux.
- 49. In addition, many corporations have made contributions to Linux, and SCO needs to take discovery on certain of these companies to determine the sources of their contributions.
- 50. SCO also needs to depose programmers who work for these companies and made the contributions to determine the sources of those programmers' code contributions. Such programmer depositions should enable SCO to streamline and prioritize and make its investigation of substantially similar copying from UNIX to Linux more efficient. A streamlined and prioritized investigation of substantially similar copying will not be nearly as time-consuming as a systematic line-by-line comparison would be. The programmers might say, for example, that in some areas of Linux development they relied on UNIX to a great extent and in other areas they did not. Such testimony would enable SCO to focus on those areas the programmers identified as relying on UNIX. Furthermore, this discovery will show why the contributions were made and what features the contributions relate to, and will allow SCO to trace back from the Linux code to UNIX.
- 51. SCO has identified some authors of various portions of Linux code from the Linux change log. (Sontag Decl. ¶ 57.) Those authors should know the sources of their code

and should be able to provide information as to whether the code they contributed to Linux was obtained from SCO copyrighted code.

- 52. Depositions of some of the foregoing individuals may permit SCO to more reasonably to determine which of the numerous contributors of source code to Linux to depose.
- 53. SCO needs to depose contributors to Linux and anticipate such depositions will provide relevant evidence including, for example:
 - -- If such a person acknowledges that he or she has incorporated (or induced, encouraged, or enabled others to incorporate) any UNIX software into any version of Linux, that testimony would support SCO's opposition.
 - -- If such a person acknowledges that he or she has incorporated (or induced, encouraged, or enabled others to incorporate) any software based on or derived from any UNIX software into any version of Linux, that testimony would support SCO's opposition.
 - -- If such a person testifies that he or she contributed source code into any version of Linux, and did so after having reviewed or examined the UNIX software in any detail, that testimony would support SCO's opposition.
 - -- If (as noted above) such a person testifies that he or she knows of someone who incorporated (or induced, encouraged, or enabled others to incorporate) any UNIX software, or any software based on or derived from any UNIX software, into any version of Linux, that testimony would permit SCO to obtain additional admissible evidence.
- 54. SCO would also depose, for example, IBM principals regarding the nature and extent of IBM activities relating to Linux. For example:

- -- SCO would depose Mr. Frye, the co-founder and present director of IBM's Linux Technology Center, regarding the IBM activities relating to Linux he enumerates in the declaration submitted with IBM's motion for summary judgment, including to determine whether IBM engaged in activities relating to Linux not identified in his declaration and what those activities are.
- -- SCO would depose Irving Wladawsky Berger, vice-president of technology and strategy at IBM, who has been described as "a pivotal proselytizer of Linux inside the company" and is the person at IBM who has proclaimed that "Linux is helping us win business." ("Kill Bill," by Daniel Lyons, at www.forbes.com (Exh. 52).)
- -- SCO would depose Samuel Palmisano, formerly senior vice president of IBM and now its Chief Executive Officer, who participated in IBM's decision in 2001 to provide Mr. Wladawsky Berger's group with \$1 billion to build a Linux business. (*Id.*)

Depositions of Persons with Access to UNIX

- 55. Another principal way for SCO to discover evidence essential to oppose IBM's Tenth Counterclaim is to depose the persons and entities that had access to UNIX, AIX, Dynix, ptx, and/or Dynix/ptx software. (That class of persons of course may overlap with the individuals described in paragraphs 46-54 above.)
- 56. SCO has not had the opportunity to depose (for example) any of the persons employed by IBM or Sequent (which IBM acquired) who had access to the UNIX software, nor any of the persons at IBM or Sequent who participated in producing AIX, Dynix, ptx and Dynix/ptx, respectively.

- 57. The depositions of (at least) the principal IBM and Sequent employees who were permitted to and did access the UNIX software prior to the advent of AIX, Dynix, ptx and Dynix/ptx will permit SCO more reasonably to determine which of the individuals who had access to UNIX to depose.
- 58. SCO has not had the opportunity to seek discovery from other UNIX licensees about their contributions to Linux.

Examination of Multiple Versions of AIX, Dynix, ptx, and Dynix/ptx

- To show that Linux code is substantially similar to UNIX code requires a comparison of that code, which, as described below, is an undertaking of great magnitude and complexity. SCO can significantly streamline this effort by examining the lineages of AIX, Dynix, ptx, and Dynix/ptx. By examining the source code in early and then subsequent versions of AIX, Dynix, ptx and Dynix/ptx, SCO can relate an existing version of AIX, Dynix, ptx, or Dynix/ptx code to UNIX code. Assuming that Linux code is similar to AIX. Dynix, ptx, and Dynix/ptx code, SCO can then prioritize its search effort to find evidence of substantial similarity between UNIX and Linux code. Without the ability to prioritize its search efforts, SCO may be required to spend an enormous amount of time, on the order of 35 man-years, searching Linux code for evidence of copying. (Sontag Decl. ¶ 15, 29-54; see also SCO's Memorandum Regarding Discovery, dated May 28, 2004 (Exh. 23).)
- 60. SCO seeks the following materials to prioritize its analysis of copying of UNIX code into Linux, and so that it can rebut IBM's motion: (i) all version control system and bug-tracking information (including documents, data, logs, files, and so forth) for AIX, Dynix/ptx, ptx, and Dynix from 1984 to the present, and (ii) source code and log information for all interim

and released versions of AIX, Dynix, ptx and Dynix/ptx from 1984 to the present. (Sontag Decl. ¶¶ 35-36.)

- 61. The evidence SCO currently has -- a few versions of AIX that IBM selected, Linux code, and System V code -- is insufficient to prioritize and avoid lengthy analysis because IBM could have copied System V code into early versions of AIX and Dynix and subsequently modified in the later versions that SCO has. Tracing the derivation of SCO-owned UNIX code from System V into the code's current form in Linux will be facilitated by SCO's access to IBM's Configuration Management Version Control (CMVC) and the versions of AIX, Dynix, ptx and Dynix/ptx. (Sontag Decl. ¶¶ 31-35.)
- 62. IBM has produced only later versions of AIX. IBM has not yet produced the earlier versions of AIX (or of Dynix, ptx, and Dynix/ptx). On that basis alone, SCO therefore has been significantly hampered in its ability to discover relevant facts essential to oppose IBM's Cross Motion.
- 63. The following materials also are relevant to prioritize SCO efforts to find evidence to rebut IBM's motion: All design documents, white papers and programming notes, created from 1984 to the present. These materials provide a wealth of information related to code development beyond that which can be found in the source code testing, VCS and bug-tracking log. Design documents also list authors of code whom SCO can then depose to help SCO prioritize its search to find evidence of Linux code that is substantially similar to UNIX code or obtain admissions. (Sontag Decl. ¶¶ 50-54.)
- 64. Further, programming notes contain the thought processes of individual programmers as they write and revise code sequences. For example, programming notes often

list changes made to code, and sometimes list additional changes to consider. Thus, programming notes provide detailed rationale for code changes and an indication of how the code may change in the future. Programming notes also list authors of code whom SCO can then depose to help SCO prioritize its search to find evidence of Linux code that is substantially similar to UNIX code. (Sontag Decl. ¶ 53.) Finally, depositions of authors may lead to admissions of copying into Linux.

65. In addition, the examination of the lineage of any given code sequences faces substantial obstacles as explained further below. (Sontag Decl. ¶¶ 36-42.)

Comparison of Source Code

- Another way for SCO to discover relevant facts to oppose IBM's Tenth Counterclaim is to compare the source code (i) in UNIX and AIX, Dynix, ptx, and Dynix/ptx, (ii) in AIX, Dynix, ptx, and Dynix/ptx and Linux, and (iii) in UNIX and Linux.
- 67. SCO has not been given a reasonable opportunity to complete any of the kinds of comparisons necessary to uncover facts relevant to SCO's opposition to IBM's motion for summary judgment. In addition to the inherent limitations on SCO's (indeed, anyone's) ability to compare source code within a reasonable period of time, as explained above, IBM indisputably has not produced any early versions of AIX, Dynix, ptx, or Dynix/ptx source code so that SCO could compare those with the source code in Linux and SCO's copyrighted UNIX code and streamline the analysis process.

SCO's Reasonable Expectations Regarding Discovery

68. The kinds of discovery I have identified can be reasonably expected to provide probative evidence regarding whether IBM's Linux activities infringe SCO's copyrights. I will now describe SCO's expectations in this regard.

Recognition of Potentially Infringing Material in Linux

- 69. The record demonstrates that many individuals familiar with Linux recognize that source code therein may infringe SCO's copyrights. Two examples are noteworthy.
- 70. In an article dated March 3, 2004, for example, the person regarded as the developer of Linux, Mr. Torvalds, grudgingly acknowledged with respect to the issue of whether Linux infringes on SCO's copyrights: "The only thing that makes any ounce of sense is their claims about somebody using (Unix) System V libraries." (Exh. 64.)
- 71. In an article dated November 29, 2003, "Linux kernel maintainer" Andrew Morton commented as follows on this litigation, specifically in reference to "the XFS and JFS file systems, which were originally developed under a Unix license and then ported over to Linux": "SGI did develop it. It could be [SCO] has a legitimate case there, not technically, but on the letter of the law." (Exh. 56.)

Comparison of Source Code

72. In addition to the foregoing, SCO reasonably expects that further comparisons of source code will permit SCO to present evidence in opposition to IBM's Tenth Counterclaim. Examples of facts from discovery to date that show copying of material from UNIX into Linux include (i) substantial similarity of the Read-Copy-Update ("RCU") routine in Linux to a routine in UNIX; (ii) copying of UNIX System V init (SYS V init) code in Linux version 2.6; (iii)

substantial similarity of the user level synchronization (ULS) routines in Linux and similar routines in UNIX; (iv) copying of SCO's UNIX System V IPC code in Linux 2.4.20; (v) copying of SCO's copyrighted UNIX "header and interfaces" in Linux; and (vi) copying of SCO's UNIX Executable and Linking Format (ELF) codes in Linux. (Gupta Decl. ¶¶ 3-86.) The foregoing evidence demonstrates copying from UNIX into Linux -- and is probative even if SCO is not seeking to assert copyright in the foregoing material. SCO has not retained a testifying expert on copyright issues; SCO has filed only a relatively narrow copyright claim in this action and did so only in February 2004. Such an expert would testify to the relative importance of the foregoing materials in Linux.

Depositions of Contributors to Linux

lead to the revelation of facts relevant to SCO's opposition to IBM's Motion. By way of example, Sam Palmisano, then senior vice president of IBM and now its Chief Executive Officer, has publicly described Linux as "a community developed version of UNIX." ("I.B.M. to Use Linux In Software For Internet," *New York Times*, Jan. 10, 2000 (Exh. 48).) SCO reasonably expects that the depositions of individuals who (like IBM) acknowledge at the outset that they have participated in the development of a "version of UNIX" are likely to provide testimony that would demonstrate (for example) that as a derivative of UNIX under the copyright laws, the use, copying and/or distribution of Linux infringes SCO copyrights.

Depositions of Persons with Access to UNIX, AIX and/or Dynix

74. The depositions of persons and entities that had access to UNIX, AIX, Dynix, ptx, and/or Dynix/ptx would permit SCO the opportunity to discover facts essential to oppose

IBM's Tenth Counterclaim. SCO anticipates the depositions may be relevant in numerous ways. For example:

- -- If such a person acknowledges that he or she induced, encouraged, or enabled others to incorporate any UNIX software, or any software based on or derived from any UNIX software, into any version of Linux, that testimony would support SCO's opposition.
- -- If (as noted above) such a person testifies that he or she knows of someone who induced, encouraged, or enabled others to incorporate any UNIX software, or any software based on or derived from any UNIX software, into any version of Linux, that testimony would permit SCO to obtain additional admissible evidence.
- -- If such a person testifies that he or she contributed source code to any version of Linux, that testimony would support SCO's opposition.
- 75. SCO reasonably expects that it will discover through such depositions facts essential to oppose IBM's Cross Motion. By way of example:
 - -- SCO expects AIX engineer Dave Kleinkamp to testify that the open-source community uses methods and concepts from AIX in order to debug and improve the performance of Linux;
 - -- SCO expects Dynix engineer Paul McKenney to testify that he participated in the development of the first iteration of RCU with Dynix engineer Brent Kingsbury, who at the time was intimately familiar with the RCU routine in UNIX from which SCO believes the Dynix RCU routine derives, and that he has contributed to Linux specific

functions (such as symmetric multiprocessing and locking techniques) that SCO believes are derived from UNIX;

- SCO expects Dynix engineer Brent Kingsbury to testify that he was involved in the design discussions regarding RCU and had previously authored the design documentation for the version for the UNIX operating system (4.2 MP) that included the RCU routine;
- SCO expects Dynix engineer Gerrit Huizenga to testify on key similarities
 between Dynix and Linux with respect to the overall design and specific configuration of
 hardware and software (that is, architecture), from which testimony SCO also expects to
 identify IBM's core areas of interest in UNIX and Linux; and
- -- SCO expects Dynix engineer Jack Vogel to testify that when IBM created its "Nifty Fifty" list of ideas on how to improve Linux (Exh. 46), IBM intended to make those selections in significant part on the advice of persons who had had access to and substantial experience working with UNIX and AIX.

SCO's Efforts to Obtain Evidence and Why They Were Unsuccessful IBM's Failure to Produce Basic Discovery

76. In light of the procedural posture of this case, the parties reasonably have not taken discovery on IBM's Tenth Counterclaim. (*See* paragraphs 14-23 above.) What is more, to date SCO has been unable to obtain discovery relevant to its own, long-standing claims in this case. Such discovery would permit SCO to take further discovery, significant portions of which would bear on IBM's Tenth Counterclaim.

- ago. Because the request came early in the case, it sought the most basic types of discovery -the elements on which further discovery is based and without which further discovery could not
 effectively proceed (for example, the identity of potential witnesses, basic agreements, relevant
 correspondence, and AIX, Dynix, ptx, and Dynix/ptx source code).
- 78. IBM's responses were incomplete and in many instances non-responsive. SCO sought to resolve the matter with IBM, but found that this effort only resulted in further delay, ultimately leaving SCO no other option but to move to compel IBM to respond.
- 79. On March 3, 2004, the Court granted SCO's motion and ordered IBM to comply, requiring IBM to provide specified discovery that it had refused to provide and also to supplement deficient responses. IBM, to date, has still failed to comply with the Court's Order.
- 80. IBM's failure forces SCO to now *renew* its earlier motion to compel -- simply to secure compliance with the Court's prior Order. (*See* Memorandum in Support of Plaintiff's Renewed Motion to Compel, dated July 7, 2004, attached as Exh. 25; *see also* SCO's Memorandum Regarding Discovery, dated May 28, 2004, attached as Exh. 23 hereto.)
- 81. In short, over one year after SCO made discovery requests of the most basic type, SCO has been forced to move to compel production not once, but twice, the second time simply to pursue enforcement of relief that this Court has already expressly ordered.
- 82. Until SCO receives from IBM the basic discovery requested, which the Federal Rules contemplate will occur at the outset of the case, SCO remains handicapped in that it cannot use such initial discovery as the basis for more targeted discovery, including discovery pertaining to IBM's Tenth Counterclaim.

- SCO's Interrogatory 5, which sought the identity of "IBM or Sequent personnel that work or worked on developing source code, derivative works, modifications or methods for AIX, Dynix and Linux, specifying for each person their precise contributions to each." Rather than providing the requested information, IBM referred SCO to its earlier produced list of over 7,000 names and stated that, to the extent readily determinable, the contributions of these persons can be discerned in the cases of AIX, Dynix, ptx, and Dynix/ptx in the "products themselves." In addition to not complying with the Court's Order to fully identify those persons, IBM's statement is not accurate.
- As to AIX, the precise contributions of the thousands persons referenced in IBM's answers do not appear anywhere in the AIX product itself. None of the numerous AIX files that SCO has reviewed specifies the precise contributions of any of the 7,200 named individuals. In fact, the AIX product does not appear to identify any of the authors of the code, much less what each person contributed.
- 85. IBM's refusal to provide this basic information severely prejudices SCO's defense of all of IBM's counterclaims. Had IBM properly answered this question submitted over one year ago, SCO would have known the precise contributions of each person to AIX, which in turn would have allowed SCO to take depositions of significant authors of AIX, which in turn would have provided direct evidence relating to IBM's duplication, modification, and/or distribution of material in UNIX in which SCO holds copyright.
- 86. Similarly, in the fall of 2003, SCO first requested contact information relating to employees, witnesses, and other individuals identified in IBM's interrogatory responses. When

IBM refused to provide the necessary contact information, SCO filed it motion to compel and this Court issued its order requiring IBM to provide the requested contact information for up to 1,000 potential trial witnesses. After the Court Order was entered, SCO sent IBM a request for the identity of selected witnesses, including a list of 81 persons taken from IBM's discovery responses. IBM refused to provide the necessary information for 49 of the 81 persons, claiming it had no obligation to do so.

- 87. There is no good faith basis for IBM's refusal to provide contact information when those same individuals were identified by IBM as witnesses from whom it had retrieved documents to support its case. It is rather incongruous to claim that these people have relevant information when IBM wants to collect it, but are not witnesses when SCO wants to find out what they know. It must also follow from IBM's contention that the Tenth Counterclaim arises out of the same transactions or occurrences as SCO's claim that IBM believes the listed witnesses would provide testimony relating to the Tenth Counterclaim. IBM continues to ignore SCO's request and, to date, has not provided the contact information.
- 88. Over a year ago, SCO requested IBM to produce "all versions or iterations of AIX and Dynix source code, modifications, methods and/or derivative works thereof' from 1999 to the present. IBM failed to produce even a single line of code from either AIX or Dynix between June 24, 2003, and December 4, 2003. On December 4, 2003, which was the day before the hearing on SCO's motion to compel production of the source code, IBM produced two CDs containing limited version of Dynix. IBM did not produce a single line of AIX code at that time.

- After hearing argument on SCO's motion to compel, on March 3, 2004, Magistrate Judge Wells, as part of an overall Order lifting a temporary stay, also issued a specific numbered directive requiring that IBM finally produce at least some version of AIX code (and additional Dynix code). On March 4, 2004, almost nine months after SCO originally requested its production, SCO finally received limited versions of AIX and additional Dynix source code so that SCO could begin to conduct source code comparisons. (Even then, the source code was first produced in a format that was unusable, and that IBM knew or should have known would be unusable).
- 90. Comparison of AIX and Dynix source code with source code in UNIX and Linux, as explained above, will enable SCO to identify the specific files and lines of AIX and Dynix that IBM contributed to Linux and to continue the complex and technically demanding analysis, as I explain below, to identify all of the instances of IBM's copying from UNIX into AIX and Dynix and into Linux.

Inherent Limitations on the Review of Source Code

- 91. In addition to IBM's failure to produce basic discovery, there are inherent limitations on the ability of any company or person (or computer) to compare source code between computer operating systems. Those limitations have precluded SCO from completing the source code comparisons necessary to obtain facts essential to justify opposition to IBM's motion for summary judgment.
- 92. Notwithstanding the following limitations, SCO has undertaken the tasks detailed in Mr. Sontag's Declaration, and the numerous tasks listed in SCO's Memorandum Regarding Discovery, dated May 28, 2004, regarding the comparison and tracking of source

code. (See Exh. 23.) Mr. Sontag addresses these issues in detail in his attached declaration. Among the important factors bearing on the evidence SCO has to date are the following.

- 93. A comparison of all of the source code in one computer operating system with all of the source code in another computer operating system could not be performed manually for purposes of any litigation. A representative example makes the point. The Linux kernel version 2.4, comprises approximately 4 million lines of code. The UNIX System V 4.2 MP kernel comprises approximately 3.4 million lines of code. There are numerous versions of UNIX, AIX, and Dynix. Assuming even nominal times for reviewing this much code, as much as 35 manyears may be expended looking for evidence of copying UNIX code into Linux. Clearly, some means for streamlining the review is needed. Given the foregoing facts, as well as other significant limitations on the use of automated search tools (described below), SCO and its experts have not sought to undertake any wholesale comparison of the source code in any two computer operating systems. (Sontag Decl. ¶¶ 15, 18-23.)
- Automated search tools cannot remove this burden completely because they have very significant limitations. The tools are designed to find lines of code that are identical or nearly identical in every detail, and they perform that function well. SCO has sought to modify and improve the tools to locate lines of code that are not identical but are nearly identical, but the tools have not performed that function well. Ultimately, the automated tools simply assist a programmer to locate blocks of code that might have similarities. The programmer must then visually review the code in a difficult and labor-intensive process. Often this review is only possible if each version of the code can be reviewed to follow the changes from one version to the next. (Sontag Decl. ¶¶ 10-20.)

95. In the face of the foregoing limitations, SCO and its engineers have sought to compare the source code in UNIX System V with source code in AIX/Dynix and Linux by making only educated guesses about where similar source code may appear in the systems being compared. An example of such an approach is to start by comparing the names of the files in the operating systems. SCO has considered the structure of the operating systems being compared and has compared like components with each other (for example, compared filesystems with filesystems, inter-process communication with inter-process communication, program loading with program loading, and the like). These comparisons of course represent only a very small fraction of the total number of comparisons that could be made among the numerous versions of the UNIX, AIX/Dynix, and Linux operating systems. (Sontag Decl. ¶¶ 14-23.)

I declare under penalty of perjury that the foregoing is true and correct.

July 8, 2004

Washington, DC

øhn Harrop

CERTIFICATE OF SERVICE

Plaintiff, The SCO Group, hereby certifies that a true and correct copy of **DECLARATION IN SUPPORT OF SCO'S OPPOSITION TO IBM'S CROSS-MOTION**FOR PARTIAL SUMMARY JUDGMENT was served on Defendant International Business Machines Corporation on the 9th day of July, 2004, as follows:

BY HAND DELIVERY:

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