patent application. The dissertation describes a system of resource management that does not require a centralized coordinator. Sites cooperate in transmitting important state information to each other. Decisions made at one site are then factored by other sites into subsequent decisions. Because this dissertation was material to the patentability of the '785 patent application, the dissertation should have been disclosed to the PTO during prosecution of the '785 patent application. IBM withheld this reference with the intent to deceive the PTO.

Inventor Daniel M. Dias appears as joint author on three papers that relate directly to the subject matter claimed in the '785 patent. These three papers appear to have been published at about the same time as the '785 patent filing date of February 27, 1996. All three papers list joint authors, none of whom, other that Mr. Dias, appears as an inventor on the '785 patent. "A Scalable and Highly Available Web Server," published in Proceedings of COMPCON '96, lists as authors, in addition to Mr. Dias, William Kish, Rajat Mukherjee, and Renu Tewari. "High Availability in Clustered Multimedia Servers," published in Proceedings – International Conference on Data Engineering 1996, lists as authors, in addition to Mr. Dias, Renu Tewari, Rajat Mukherjee, and Harrick Vin. "Design and Performance Tradeoffs in Clustered Video Servers," published in Proceedings – International Conference on Multimedia Computing and Systems 1996, lists as authors, in addition to Mr. Dias, Renu Tewari, Rajat Mukherjee, and Harrick Vin. All three of these papers describe concepts that can be found in the '785 patent claims, and thus Messrs. Kish, Mukherjee, Tewari, and Vin should have been listed as inventors on the '785 patent. IBM's decision not to list Messrs. Kish, Mukherjee, Tewari, and Vin as inventors on the '785 patent was with the intent to deceive the PTO.

U.S. Patent 5,129,080 ('the '080 patent"), entitled "Method and System Increasing the Operational Availability of a System of Computer Programs Operating in a Distributed System of

Computers," filed October 17, 1990, issued July 7, 1992, and assigned to IBM, is material to patentability of the '785 patent, and should have been disclosed by IBM to the PTO. In particular, the '080 patent discloses high availability architectures, cooperative processing among nodes of a computer network, and fault recovery techniques. The '080 patent also discloses sharing of state information among the computer network nodes and global and local management. Because the '080 patent is material to patentability of the '785 patent application, the '080 patent should have been disclosed to the PTO during prosecution of the '785 patent application. IBM withheld this reference with the intent to deceive the PTO.

The '209 patent, entitled "Self-verifying Receipt and Acceptance System for Electronically Delivered Data Objects," was filed on October 31, 1988. The '209 patent, in the section entitled "Background of the Invention," describes only two prior art references: U.S. Patent No. 4,757,533 to Allen et al. and U.S. Patent No. 4,757,534 ("the '534 patent") to Stephen M. Matyas et al.

The '534 patent is assigned to IBM. Stephen M. Matyas, co-inventor of the '534 patent, is listed as an author of more than 100 IBM publications related to cryptography or data encryption. Mr. Matyas is also listed as an inventor on more than 70 issued patents in this field. Mr. Matyas is well known in the field of cryptography and data encryption at IBM. When the '209 patent application was filed, IBM knew that some of Mr. Matyas' activities were material to the patentability of the '209 patent. However, as noted above, only the '534 patent was listed. IBM failed to cite other material prior art references associated with Mr. Matyas, including, for example, U.S. Patent 4,203,166 ("the '166 patent") in which Mr. Matyas is listed as an inventor. The '166 patent, entitled "Cryptographic File Security for Multiple Domain Networks," filed December 5, 1977, issued May 13, 1980, and assigned to IBM, is material to patentability of the '209 patent, and should have been disclosed by IBM to the PTO.

The '166 patent discloses a file security system for data files created at a first host system in one domain and recovered at a second host system in another domain of a multiple domain network. Specifically, the '166 patent discloses, a first host system that provides a file recovery key for subsequent recovery of a data file at a second host system. The first host system enciphers (modifies) the first host system plaintext to obtain first host system ciphertext as the data file. The file recovery key is used as header information for the data file. When the data file is to be recovered at the second host system, the file recovery key is provided at the second host system and the second host system transforms the file recovery key into a form, which is usable to decipher the data file. The second host system uses the transformed file recovery key to perform a cryptographic operation to obtain the first host system ciphertext in clear form (unmodified) at the second host system. Thus, the '166 patent is material to the patentability to the claims of the '209 patent. Because the '166 patent is material to the patentability of the '209 patent, the '166 patent should have been disclosed to the PTO during prosecution of the '209 patent. IBM withheld this reference with the intention to deceive the PTO.

IBM also failed to cite U.S. Patent 4,238,854 ("the '854 patent") in which Mr. Matyas is again listed as an inventor. The '854 patent, entitled "Cryptographic File Security for Single Domain Networks," filed December 5, 1977, issued December 9, 1980, and assigned to IBM, is material to patentability of the '209 patent, and should have been disclosed by IBM to the PTO. The '854 patent was filed concurrently with the '166 patent described above.

The '854 patent discloses that an operational key enciphered under the file key of the designated storage media, as header information, together with the host data enciphered under the operational key is written on the storage media as an enciphered data file. When the data file is recovered, the host data security device transforms the enciphered operational key header

information under control of a host master key into a form which permits the operational key to be used for deciphering the enciphered data file to obtain the file data in clear form. Thus, the '854 patent is material to the patentability to the claims of the '209 patent. Because the '854 patent is material to the patentability of the '209 patent, the '854 patent should have been disclosed to the PTO during prosecution of the '209 patent. IBM withheld this reference with the intention to deceive the PTO.

Matyas is also one of the authors of an article entitled "Cryptographic Key Authentication in Communication System" published by IBM in March, 1978. The article was published as an IBM Technical Disclosure Bulletin, March 1978, pages 3990-92. This publication discloses that message communication protection is obtained by enciphering a clear data message X at a host under control of a working key KS to yield a ciphered data message Y. At the receiving terminal, the enciphered data message Y is deciphered under control of the working key KS to yield the clear data message X.

Another article in which Matyas is an author is entitled "Terminal Control of Encipher and Decipher Data Operations" published by IBM in August, 1981. The article was published as an IBM Technical Disclosure Bulletin, August, 1981, pages 1334-1339.. This publication discloses that in communication security applications where data is to be transmitted in a cryptographic session, between a host unit and a remote terminal controller unit, a data encrypting session key (KS) is required to be established in a form suitable for use at each unit. Data may then be enciphered under KS at one unit and transmitted to the other unit where it is deciphered under KS.

Thus, the above publications, published as IBM Technical Disclosure Bulletins, are material to the patentability of the claims of the '209 patent. Because these publications are material to the patentability of the '209 patent, these articles should have been disclosed to the

PTO during prosecution of the '209 patent. IBM withheld these references with the intention to deceive the PTO.

The foregoing actions constitute inequitable conduct and unclean hands and render the claims of the '746, '785, and '209 patents unenforceable. Discovery in this proceeding is ongoing, and additional acts of inequitable conduct and unclean hands will be added to this defense at the appropriate time.

To the extent that additional facts are uncovered during the course of discovery, SCO reserves the right to supplement this response when fact and expert discovery have been completed.

6. The General Public License ("GPL") is unenforceable, void and/or voidable, and IBM's claims based thereon, or related thereto, are barred.

Without waiving the foregoing objections, Plaintiff notes that enforcement of the General Public License ("GPL") through state law causes of action is precluded by the Copyright Act and by the Supremacy Clause of the U.S. Constitution. The Copyright Act and the Supremacy Clause both preempt IBM's counterclaims alleging "breach" of the GPL and "promissory estoppel."

The text of the GPL itself makes clear that the activities governed by the GPL are also explicitly governed by federal copyright law. Under the terms of the GPL, upon a violation of the GPL, violators' rights under the GPL are terminated and their permissions revert to rights set out in federal copyright law. The remedy for alleged breaches of the GPL is a copyright infringement claim brought by the copyright holder. Section 301 of the Copyright Act preempts IBM's GPL claims in this case.

Because the GPL purports to govern and regulate the same rights as federal copyright law, and because of the uncertainty and difficulty accompanying administration and enforcement of the GPL, the GPL regime stands as an obstacle to the accomplishment and execution of the full

purposes and objectives of Congress in enacting the federal copyright system. The GPL is therefore also preempted under the doctrine of "conflict preemption."

Moreover, even if the GPL were not preempted by federal law, it would be unenforceable under state law for numerous reasons. Among these is the fact that the GPL is not a contractual relationship predicated on mutual assent to obligations, and lacks other qualities required for enforcement under state law contract principles. Moreover, the GPL allows the unrestricted flow of technology to countries that are specifically barred from having such technology and thus is an illegal contract.

To the extent that additional facts are uncovered during the course of discovery, SCO reserves the right to supplement this response when fact and expert discovery have been completed.

7. The GPL is selectively enforced by the Free Software Foundation such that enforcement of the GPL by IBM or others is waived, estopped or otherwise barred as a matter of equity.

Without waiving the foregoing objections, Plaintiff responds regarding this Affirmative Defense by incorporating herein its response to the Affirmative Defense listed in Item 6 above. SCO also observes that statements and conduct of the Free Software Foundation regarding the nature and enforcement of the GPL – which speak for themselves, and which IBM is in at least as good a position as SCO to know and/or learn – corroborate SCO's response regarding its Affirmative Defense in Item 6 above.

To the extent that additional facts are uncovered during the course of discovery, SCO reserves the right to supplement this response when fact and expert discovery have been completed.

8. **IBM's claims are barred, in whole or in part, by the First Amendment to the U.S. Constitution, by the doctrine of judicial immunity and by privilege.**

Without waiving the foregoing objections, the statements attributable to SCO in IBM's Second Amended Counterclaims are not strictly commercial speech but rather are statements entitled to first amendment protection. The public statements by SCO related to, among other things, SCO's rights under its various agreements with IBM and Sequent, and the litigation surrounding the termination of those agreements. Such topics and the other public statements identified by IBM in its Second Amended Counterclaims concern important social issues regarding proprietary rights and are not misleading, misrepresentative, false, or disparaging. Additionally, SCO's public statements were made preliminary to, or in the context of, litigation and/or were made in good faith.

To the extent that additional facts are uncovered during the course of discovery, SCO reserves the right to supplement this response when fact and expert discovery have been completed.

9. **IBM's claims are barred or preempted, in whole or in part, by the laws of the United States.**

Without waiving the foregoing objections, regarding this Affirmative Defense, SCO incorporates herein its response regarding the Affirmative Defense listed in Items 6 and 8 above.

10. **IBM's own conduct, including that of its agents, contractors and partners, and/or conduct of third parties constitute superseding or intervening causes with respect to IBM's claims of damage or injury.**

Any damages IBM claims to have suffered is a result of its own conduct and/or conduct of third parties unrelated to SCO. IBM freely entered into the agreements described in SCO's

Second Amended Complaint and in SCO's Response to the Interrogatory relating to SCO's Affirmative Defense in Items 3 and 4 above. These contracts provided rights to AT&T (which have come to belong to SCO) and placed clear restrictions on the conduct of IBM. Despite the restrictions described in Items 3 and 4 above, IBM materially breached the contracts as set forth in SCO's Second Amended Complaint and in Items 3 and 4 above.

IBM collaborated with third parties in releasing source code to the general public and thereby breached IBM's contracts. Contractors who worked on the Open Source Development Laboratory assisted IBM employees in transferring information technology to Linux. Examples of such transfer of restricted technology include emails written to and from IBM employees, including Kevin Corry, Mike Spreitzer, A. Prasad, Ian Romanick, Ben Rafanello, Niels Christiansen, and Juan Gomez, which imparted AIX information technology during at least the period from September 2000 through November 2002.

Insofar as IBM claims any damages arising out of works it has copyrighted, IBM freely contributed source code to Linux for the free use of all licensees under the GPL. (IBM's Second Amended Counterclaims ¶ 45). Thus, it was IBM's own conduct that caused any damages. In addition, third parties involved with Linux may have contributed to any IBM injury.

To the extent that additional facts are uncovered during the course of discovery, SCO reserves the right to supplement this response when fact and expert discovery have been completed.

11. **SCO has acted legally and properly at all relevant times and IBM is therefore barred from any relief whatsoever.**

Without waiving the foregoing objections, SCO refers to its answers above regarding the facts concerning the Affirmative Defenses identified in Items 3, 4 and 5 above.

12. IBM is not, or may not be, the owner of the '746, '211, '209 or '785 Patents at issue.

IBM is not the proper owner of the '746 patent. Terry Welch is generally regarded as the inventor of LZW compression, and his patent was licensed to the industry by Unisys. IBM is not the proper owner of the '785 patent. Renu Tewari, William Kish, Rajat Mukherjee, and Harrick Vin should have been named as inventors of the '785 patent and are therefore actual owners of the '785 patent. SCO also incorporates its response to the Affirmative Defense identified in Item 15 below. To the extent that additional facts are uncovered during the course of discovery, SCO reserves the right to supplement this response when fact and expert discovery have been completed.

13. The patents at issue, and particularly the claims of those patents alleged to be infringed, are invalid and of no effect for failure to comply with one or more requirements set forth in Title 35 of the United States Code, including, but not limited to Sections 101, 102, 103, 112, 116 and/or 256.

The claims of the '746 patent alleged to be infringed are invalid for failure to comply with 35 U.S.C. §102, §103, and §112. For example, the claims of the '746 patent are invalid under 35 U.S.C. §102 and/or §103 at least over one or more of the following references:

U.S. Patent No. 3,694,813
U.S. Patent No. 3,980,809
U.S. Patent No. 4,087,788
U.S. Patent No. 4,121,259
U.S. Patent No. 4,192,010
U.S. Patent No. 4,319,225
U.S. Patent No. 4,410,916
U.S. Patent No. 4,499,499
U.S. Patent No. 4,636,946
U.S. Patent No. 3,717,851
U.S. Patent No. 4,021,782

U.S. Patent No. 4,099,257
U.S. Patent No. 4,145,686
U.S. Patent No. 4,288,782
U.S. Patent No. 4,355,306
U.S. Patent No. 4,558,302
U.S. Patent No. 4,366,551
U.S. Patent No. 4,491,934
U.S. Patent No. 4,506,325
U.S. Patent No. 4,560,976
U.S. Patent No. 3,976,844
U.S. Patent No. 4,059,850
U.S. Patent No. 4,107,457
U.S. Patent No. 4,168,513
U.S. Patent No. 4,295,124
U.S. Patent No. 4,382,286
U.S. Patent No. 4,494,150
U.S. Patent No. 4,545,032
U.S. Patent No. 4,597,057
U.S. Patent No. 4,467,411
U.S. Patent No. 4,349,875

Frank Rubin, "Experiments in Text File Compression", Communications of the ACM, Vol. 19, No. 11, November 1976, pp. 617-623.

Edward M. McCreight, "A Space Economical Suffix To Reconstruction Algorithm", Journal of the Association for Computing Machinery, Vol. 23, No. 2, April 1976, pp. 262-267.

"A Universal Algorithm For Sequential Data Compression," IEEE Transactions on Information Theory, Vol. IT-23, No. 3, May 1977, pp. 337-343.

"Message Compression Method," published as an IBM Technical Disclosure Bulletin, Volume 23, No. 9, pages 4197-98.

Bruce Hahn "A New Technique for Compression and Storage of Data", Communication of the ACM, August 1974, Vol. 17, No. 8, pp. 434-436.

Michael Rodeh, "Linear Algorithm for Data Compression via String Matching", Journal of the Association for Computing Machinery, Vol. 28, No. 1, January 1981, pp. 16-24.

Robert S. Boyer, "A Fast String Searching Algorithm", Communication of the ACM, October 1977, Vol. 20, No. 10, pp. 762-771.

H.K. Reghbati, "An Overview of Data Compression Techniques", IEEE 1981, April 1981, pp. 71-74.

Jorma Rissanen, et al., "Universal Modeling and Coding", IEEE Transactions of Information, Vol. IT27, No. 1, January 1991, pp. 12-23.

Further, the claims of the '746 patent are invalid under 35 U.S.C. §112. The specification fails to contain an enabling disclosure as to teach any person skilled in the art to which it pertains to make and use the invention. The '746 patent fails to provide written description support for various terms in the claims, including various means-plus-function terms and a utilization device. The claims of the '746 patent are indefinite because the various means-plus-functions and the utilization device appear to be one structure.

The claims of the '209 patent alleged to be infringed are invalid for failure to comply with 35 U.S.C. §102, §103, and §112.

Claims of the '209 patent are anticipated under 35 U.S.C. § 102 by one or more, or are unpatentable under 35 U.S.C. § 103 over one or more, of the following references:

U.S. Patent 4,740,890	U.S. Patent 4,791,661
U.S. Patent 4,685,055	U.S. Patent 4,238,854
U.S. Patent 4,959,861	U.S. Patent 4,796,181
U.S. Patent 4,203,166	U.S. Patent 4,649,510
U.S. Patent 5,014,234	U.S. Patent 4,658,093
U.S. Patent 4,683,553	U.S. Patent 4,446,519
U.S. Patent 3,609,697	U.S. Patent 4,323,921
U.S. Patent 4,326,098	U.S. Patent 4,442,486
U.S. Patent 4,458,109	U.S. Patent 4,458,315
U.S. Patent 4,462,078	U.S. Patent 4,465,901
U.S. Patent 4,467,139	U.S. Patent 4,471,163
U.S. Patent 4,484,217	U.S. Patent 4,525,599
U.S. Patent 4,577,289	U.S. Patent 4,625,076

U.S. Patent 4,796,220	U.S. Patent 4,864,494
U.S. Patent 4,999,806	EP0137075
U.S. Patent 4,757,534	U.S. Patent 4,757,533

Matyas et al., "Cryptographic Key Authentication in Communication System", IBM Technical Disclosure Bulletin, pages 3990-3992 (March, 1978).

Matyas et al., "Terminal Control of Encipher and Decipher Data Operations", IBM Technical Disclosure Bulletin, pages 1334-1339 (August, 1981).

Konheim, Cryptography – A Primer, pp. 65-66 (1983).

The disclosure of the '209 patent does not meet one or more of the following requirements of 35 U.S.C. § 112. As required by 35 U.S.C. § 112, the specification of the '209 patent does not contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to make and use the invention. The '209 patent contains one or more claims that do not particularly point out and distinctly claim the subject matter regarded as the invention, as further required by 35 U.S.C. § 112. The '209 specification lacks corresponding structure for means-plus-function terms as required by 35 U.S.C. § 112, sixth paragraph.

The claims of the '785 patent alleged to be infringed are invalid for failure to comply with 35 U.S.C. §102, §103, §112, §116 and § 256.

For example, the claims of the '785 patent are invalid under one of 35 U.S.C. §102 and §103 at least over one or more of the following references:

U.S. Patent No. 5,129,080
U.S. Patent No. 5,423,000

A dissertation, entitled "A Dynamic and Decentralized Approach to Management of CPU and Memory," by Avraham Leff, published at Columbia University in 1992.

"Software Implemented Fault Tolerance: Technologies and Experience," Yennun Haung and Chandra Kintala, published by IEEE in 1993.

"Intelligent & Integrated Management of an Electronic Messaging Services Network," Raj Ananthanpillai, published by IEEE in 1992.

The claims of the '785 patent are invalid under 35 U.S.C. §112 because the specification fails to contain an enabling disclosure as to teach any person skilled in the art to which it pertains to make and use the invention and fails to comply with the written description requirement for terms in the claims, including means-plus-function terms.

The claims of the '785 patent are invalid under 35 U.S.C. §116 and §256 for failure to name all required inventors. See also the response to the Affirmative Defense in Item 15 below.

To the extent that additional facts are uncovered during the course of discovery, SCO reserves the right to supplement this response when fact and expert discovery have been completed.

14. On information and belief, IBM's claims under the patents at issue are precluded by the doctrine of prosecution history estoppel based on the admissions and representations made by IBM in proceedings before the United States Patent and Trademark Office during the prosecution of the applications of the patents at issue.

The claims of the '746 patent at issue are precluded based by prosecution history estoppel based on admissions and representations made by IBM during the prosecution of the application of the '746 patent. IBM's admissions, representations, and amendments bar the application of the doctrine of equivalents. IBM's admissions, representations, and amendments limit the claims of the patent to an IBM 370 Model 3081 series mainframe computing system and PLI programming language.

The claims of the '209 patent at issue are precluded because of prosecution history estoppel based on admissions and representations made by IBM during the prosecution of the application of the '209 patent. IBM's admissions, representations, and amendments bar the application of the doctrine of equivalents. IBM's admissions, representations, and amendments limit the claims of the '209 patent to methods and/or systems that require no special keys, no separate unscrambling routines or the like.

The claims under the '785 patent at issue are precluded based on prosecution history estoppel based on admissions and representations made by IBM during the prosecution of the application of the '785 patent. IBM's admissions, representations, and amendments before the U.S. Patent and Trademark Office bar the application of the doctrine of equivalents. IBM's admissions, representations, and amendments limit the claims of the patent to a high availability architecture that incorporates subsystems built without high availability without modifying the core functions of the high availability architecture. Further, the claims are limited to recovery of distributed systems that require coordination across nodes over which the systems are distributed.

To the extent that additional facts are uncovered during the course of discovery, SCO reserves the right to supplement this response when fact and expert discovery have been completed.

15. On information and belief, U.S. Patent 4,814,746 ("the '746 patent") is unenforceable by reason of IBM's inequitable conduct, acts or omissions before the U.S. Patent and Trademark Office ("PTO"). The '746 patent, in the section entitled "Background of the Invention," cites one article directed to LZ78 data compression and indicates that it is representative of the prior art. U.S. Patent No. 4,814,746, column 1, lines 13-27. That statement is material, false and misleading and was known by IBM to be material, false and misleading. In fact, the single article cited in the '746 patent is not representative of the prior art. There are numerous other techniques such as LZ77,

described in an article entitled "A Universal Algorithm For Sequential Data Compression," IEEE Transactions on Information Theory, Vol. IT-23, No. 3, May 1977, pp. 337-343. Other types of prior art data compression methods include run length encoding, arithmetic encoding and Huffman encoding. The falsity of IBM's statement is also reflected by the fact that in the period from December 9, 1975 to March 1, 1983, IBM itself obtained the issuance of at least 31 patents directed to data compression.

On September 22, 1988, during prosecution of the continuation patent application which led to issuance of the '746 patent, IBM filed an Information Disclosure Statement ("IDS") with the PTO. That IDS discloses European Patent Office ("EPO") patent publication 129439. The inventor of that patent publication was Terry Welch. The patent publication was published on December 27, 1984. Inexplicably, while IBM mentioned the United States counterpart of the EPO publication, it did not cite that counterpart in the citation of prior art. Thus, the face of the '746 patent does not contain any reference to the U.S. counterpart. That counterpart was U.S. Patent No. 4,558,302. That patent contains claims which overlap with the '746 patent. The Welch U.S. Patent No. 4,558,302 was filed 19 days after the '746 patent application was filed in the PTO. The closeness of these dates implicates 35 U.S.C. § 102(g) and raises a serious question as to who was the first inventor of the claimed subject matter and who is entitled to the patent. The failure to cite the U.S. counterpart, the fact that IBM waited almost three years after the U.S. counterpart issued as a patent to even inform the PTO of the EPO publication, and the additional fact that IBM waited until after the claims of the '746 patent were allowed to file an IDS, were intended to deter the Patent Examiner from comparing the claims of the U.S. counterpart to the allowed claims of the '746 patent. These actions were material to the examination of the '746 patent.

IBM's IDS states that the U.S. counterpart patent "apparently is an improvement on the teaching of [another reference] and offers nothing more that would affect the patentability of the allowed claims in this case. These statements were material, false and misleading and were known by IBM to be material, false and misleading. These statements and the fact that IBM cited the EPO publication and not the U.S. patent counterpart had the effects of not only mischaracterizing the disclosure of the Welch patent application, but

also of concealing from the PTO the overlap between the claimed subject matter of the '746 patent and the counterpart U.S. patent.

IBM withheld additional prior art from the PTO. In February, 1981, IBM published an article entitled "Message Compression Method." The article was published as an IBM Technical Disclosure Bulletin, Volume 23, No. 9, pages 4197-98. That publication was material to the patentability of the '746 patent. IBM withheld this prior art with intent to deceive the PTO.

On information and belief, IBM was aware prior to the issuance of the '746 patent, of U.S. Patent No. 4,366,551, issued December 28, 1982, to Klaus E. Holtz. This patent is material to the patentability of the claims of the '746 patent. On information and belief, IBM's intentional failure to disclose this prior art to the PTO was part of IBM's scheme to withhold material prior art.

On information and belief, U.S. Patent 5,805,785 ("the '785 patent") is unenforceable by reason of IBM's inequitable conduct, acts or omissions before the PTO. The '785 patent, entitled "Method for Monitoring and Recovery of Subsystems in a Distributed/Clustered System," was filed on February 27, 1996, listing as joint inventors Daniel Manuel Dias, Richard Pervin King, and Avraham Leff. Applicants also filed an IDS on this date. The IDS listed 12 references that are all U.S. patents. No other references, including technical papers authored by one or more of the joint inventors were listed. A review of papers authored by the three inventors reveals several that are material to patentability. In particular, Avraham Leff's Ph.D dissertation, entitled "A Dynamic and Decentralized Approach to Management of CPU and Memory," published at Columbia University in 1992, is material to the patentability of the '785 patent application. The dissertation describes a system of resource management that does not require a centralized coordinator. Sites cooperate in transmitting important state information to each other. Decisions made at one site are then factored by other sites into subsequent decisions. Because this dissertation was material to the patentability of the '785 patent application, the dissertation should have been disclosed to the PTO during prosecution of the '785 patent application. IBM withheld this reference with the intent to deceive the PTO. Inventor Daniel M. Dias appears as joint author on three papers that relate directly to the subject matter claimed in the '785 patent. These

three papers appear to have been published at about the same time as the '785 patent filing date of February 27, 1996. All three papers list joint authors, none of whom, other that Mr. Dias, appears as an inventor on the '785 patent. "A Scalable and Highly Available Web Server," published in Proceedings of COMPCON '96, lists as authors, in addition to Mr. Dias, William Kish, Rajat Mukherjee, and Renu Tewari. "High Availability in Clustered Multimedia Servers," published in Proceedings – International Conference on Data Engineering 1996, lists as authors, in addition to Mr. Dias, Renu Tewari, Rajat Mukherjee, and Harrick Vin. "Design and Performance Tradeoffs in Clustered Video Servers," published in Proceedings – International Conference on Multimedia Computing and Systems 1996, lists as authors, in addition to Mr. Dias, Renu Tewari, Rajat Mukherjee, and Harrick Vin. All three of these papers describe concepts that can be found in the '785 patent claims, and thus Messrs. Kish, Mukherjee, Tewari, and Vin should have been listed as inventors on the '785 patent. IBM's decision not to list Messrs. Kish, Mukherjee, Tewari, and Vin as inventors on the '785 patent was with the intent to deceive the PTO.

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On information and belief, U.S. Patent 4,821,211 ("the '211 patent") is unenforceable by reason of IBM's inequitable conduct, acts or omissions before the PTO. The '211 patent was filed on November 19, 1987 and issued on April 11, 1989. During prosecution of the '211 patent application, Applicants did not disclose any prior art references to the PTO through filing an IDS. On information and belief, Applicants were aware of prior art