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IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF UTAH

THE SCO GROUP, INC.,

Plaintiff/Counterclaim-Defendant,

v.

INTERNATIONAL BUSINESS MACHINES CORPORATION,

Defendant/Counterclaim-Plaintiff.

DECLARATION OF TIM BIRD

Civil No. 2:03CV-0294 DAK

Honorable Dale A. Kimball

Magistrate Judge Brooke C. Wells

I, Tim Bird, declare as follows:

- I am currently employed as a Senior Staff Engineer for Linux Architecture and Satndards for the Network & Systems Architecture Division of Sony Electronics, Inc. in San Jose, California.
- I was employed at Caldera, Inc. ("Caldera") from July 1994 to September 1998. I served as a Senior Developer. In September 1998, Caldera split into two separate entities:
 Caldera Thin Clients and Caldera Systems. At that point, I went to work for Caldera Thin
 Clients. That company later became Lineo. I was employed at Lineo until April 2002.
- 3. Immediately prior to my employment at Caldera, I was employed at Novell, Inc. ("Novell") from 1988 to July 1994.
- 4. This declaration is submitted in connection with the lawsuit brought by The SCO Group, Inc. ("SCO") against IBM, titled The SCO Group, Inc. v. International Business

 Machines Corporation, Civil No. 2:03CV-0294 DAK (D. Utah 2003). I make this declaration based upon personal knowledge.

UNIX and Linux Experience at Novell

- I worked on UNIX at Novell. During the course of my employment I had access to UNIX System V source code and studied it. At one point while at Novell I also took an AT&T training class on System V.
- 6. I began working on Linux in 1993 while working at Novell through the Corsair project, which sought to develop Linux for the desktop. The Corsair project was the origin for

what would later become Caldera, and several of the Novell employees who worked on Corsair, including myself, left Novell to start Caldera.

Caldera's Linux Business

- 7. Caldera was founded as Linux company. Caldera distributed a variety of Linux products, including Caldera Network Desktop and Caldera OpenLinux.
- 8. Caldera made various contributions to Linux and to the open source community generally, including being an early sponsor and architect of the Redhat Package Manager (RPM), contributing equipment and funding for the Linux SMP project, making early contributions to the development of various kernel drivers (including Ethernet and Frame Relay), developing Novell's NetWare Client for Linux, and providing manpower and funding to vendor-neutral initiatives such as Linux Standard Base and the Linux Professional Institute.
- 9. I was personally involved with several Linux programming projects while at Caldera, including work on early versions of DOSEMU and Wine, and worked on porting major commercial applications, such as Netscape's Fasttrack Web server and Looking Glass graphical desktop, to Linux.

Caldera's Involvement in Linux Standardization

10. While at Caldera, I worked on Linux standardization. I attended a meeting to discuss the establishment of Linux standards with several individuals, including John "Mad Dog" Hall, Alan Cox, and Bruce Perens on the campus of the University of North Carolina at Chapel Hill in 1996. That effort ultimately turned into the Linux Standards Base project ("LSB").

- 11. Caldera participated in the LSB, which is based on the POSIX specification, the Single UNIX Specification, and several other open standards. The purpose of LSB was to define the common core of components that can be expected to be found in any "Linux" system.
- 12. Compliance with the LSB requires that the Linux distribution contain material explicitly specified by the LSB, as well as material required by other Unix standards to which the LSB refers.
- 13. Caldera also actively pursued compliance with the POSIX standards. For marketing purposes, it was important to Caldera that its Linux distribution be as "UNIX-like" as possible because this would help to convince customers that Caldera's Linux was a reliable operating system.
- 14. I understand that SCO claims that certain materials in Linux infringe SCO's alleged copyrights, specifically: header files required by the Open Group's Single Unix Specification (SUS), header files relating to the STREAMS technology, and files and specifications relating to the Executable and Linking Format (ELF).
- 15. This material has been in Linux for a very long time: some of the header files required by the SUS has been in Linux since its creation in 1991—all have been in Linux for at least six years; the STREAMS header files, while never in the Linux kernel, have been available for at least nine years; and ELF has been in Linux since version 1.0 over a decade ago.
- 16. Whether explicitly or by reference to the requirements of Unix standards, the LSB mandates inclusion of the SUS standard header files. The LSB also includes numerous requirements that mandate an ELF implementation such as that claimed by SCO.

- 17. I knew this material was in Linux because Caldera incorporated it into its Linux products.
 - 18. Caldera distributed its Linux products under the GNU Public License (GPL).
- 19. Caldera promoted the LSB, which required inclusion of the header files in the Single Unix Specification, as well as the ELF format. After it was renamed "SCO", Caldera claimed to ship a Linux distribution certified as compliant with the LSB.

Caldera's Support of Linux STREAMS

- 20. Caldera was, to my knowledge, the only proponent of Linux STREAMS support.

 This was because SCO required Linux STREAMS support in order to be able to run its NetWare for Linux product.
- 21. Caldera mainlined a facility that would allow for the inclusion of Linux STREAMS in the kernel.
- 22. Linux STREAMS was included in the Caldera OpenLinux product distributed by Caldera.

"Using Caldera OpenLinux"

23. I authored a book titled "Using Caldera OpenLinux" with Alan Smart, Eric Ratcliff, and David Bandel, which was published in 1999. A Caldera Open Linux cd was included with the book. At the time the book was published I was working for Caldera Thin Clients, Alan Smart was Director of Education Services at Caldera Systems, and Eric Ratcliff was also employed by Caldera Systems.

- 24. The book touted the LSB project and encouraged readers to participate, describing the goal of the LSB as "to develop a solid, stable platform with known, established binaries and libraries with which software developers can reliably port their software".
- 25. The book mentioned Linux STREAMS and noted that it was supported in Caldera OpenLinux.
 - 26. I declare under penalty of perjury that the foregoing is true and correct.

Executed: September 18, 2006.

San Jose, California

Tim Bird