## UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TD AMERITRADE HOLDING CORPORATION, TD AMERITRADE, INC., and TD AMERITRADE ONLINE HOLDINGS CORP., Petitioners

V.

TRADE TECHNOLOGIES INTERNATIONAL, INC. Patent Owner

Patent No. 7,533,056

DECLARATION OF KENDYL A. ROMÁN IN SUPPORT OF PETITION FOR COVERED BUSINESS METHOD REVIEW OF U.S. PATENT 7,533,056



### I, Kendyl A. Román, declare as follows:

- 1. I have been engaged by Sterne, Kessler, Goldstein & Fox P.L.L.C. on behalf of Petitioner, TD Ameritrade Holding Corp., for the above-captioned covered business method review proceeding. I understand that this proceeding involves United States Patent 7,533,056, entitled "User interface for an electronic trading system," by Richard W. Friesen, filed May 3, 2006 and issued May 12, 2009, (the "'056 Patent"). I understand that the '056 Patent is currently assigned to Trading Technologies International, Inc. ("TTI").
- 2. I understand the '056 Patent is a continuation of Application No. 09/289,550, filed on April 9, 1999, issued as U.S. Patent No. 7,212,999. For purposes of the covered business method review, I assume the earliest possible priority date of the '056 Patent is the April 9, 1999 filing date of U.S. Patent No. 7,212,999.
- 3. I have reviewed and am familiar with the specification of the '056 Patent. I understand that the '056 Patent has been provided as Exh. 1001. I will cite to the specification using the following format ('056 Patent, 1:1-10). This example citation points to the '056 Patent specification at column 1, lines 1-10.
- 4. I have reviewed and am familiar with the file history of the '056 Patent. I understand that the file history has been provided as Exh. 1002.



- 5. I have also reviewed and am familiar with the following prior art used in the Petition for Covered Business Method Review of the '056 Patent:
  - A certified translation of "System for Buying and Selling Futures and Options Transaction Terminal Operational Guidelines" ("TSE") and the original figures in the Japanese-language original. The translation is Exhibit 1004, and the original is Exhibit 1003.
  - U.S. Patent No. 5,375,055 to Togher et al. ("Togher"), Exhibit 1008.
  - U.S. Patent No. 5,619,631 to Schott ("Schott"), Exhibit 1009.
  - U.S. Patent No. 5,136,501 to Silverman et al. ("Silverman"), Exhibit 1010.
  - U.S. Patent No. 5,414,809 to Hogan ("Hogan"), Exhibit 1011.

A complete listing of additional materials considered and relied upon in preparation of my declaration is provided as Exh. 1034. I have relied on these materials to varying degrees. Citations to these materials that appear below are meant to be exemplary but not exhaustive.

- 6. The '056 Patent describes a graphical user interface for electronic trading systems. '056 Patent, Title, 1:15-17. I am familiar with the technology described in the '056 Patent as of the earliest possible priority date of the '056 Patent (April 9, 1999).
- 7. I have been asked to provide my technical review, analysis, insights and opinions regarding the '056 Patent and the above-noted references



that form the basis for the grounds of rejection set forth in the petition for Covered Business Method Review of the '056 Patent.

### I. QUALIFICATIONS

- 8. See my Curriculum Vitae, provided as Exh. 1033, for a listing of my qualifications. This includes a list of publications for the past 10 years or more.
- 9. My expertise qualifies me to do the type of analysis required in this case. Of particular relevance, I have been involved in the design, implementation, testing, and analysis of computer software, firmware, and hardware for over thirty years, including software architecture, graphical user interfaces, trading systems, and other networked, data-driven, client-server systems. My work has included analysis of trading systems including source code and user interfaces. In addition, I have practical experience in the design and programming of a variety of computer systems ranging from handheld devices, to laptops and desktop computers, to large multi-layer networked database systems.
- 10. As a freshman at Brigham Young University ("BYU") in 1976, I started writing programs for IBM computers.
- 11. In 1980, I worked with Apple II computers and wrote computer programs having graphic user interfaces.



- 12. In the late 1960's and 1970's the University of Utah was known for its pioneering work in computer graphics (and the Internet<sup>1</sup>). At BYU, I got involved with computer graphics and wrote graphics programs. Many of my BYU professors had been at the University of Utah during its computer science pioneering years. One of my BYU professors, Alan Ashton, and a fellow computer science student, Bruce Bastian, worked together on word processing software with graphical display. Later, Professor Ashton and Bruce Bastian founded WordPerfect.
- 13. I graduated with High Honors from Brigham Young University where I received a Bachelor of Science degree in Computer Science. My formal studies included computer architecture, computer programming, programming languages, algorithms, operating systems, database systems, and digital logic design.
- 14. In 1981, I worked at International Business Machines ("IBM") in San Jose, CA. At IBM, I had a graphics display on my desk and wrote programs that displayed custom graphics. During my employment at IBM, the IBM PC was released. The IBM PC also supported graphical user interfaces.



<sup>&</sup>lt;sup>1</sup> In 1969, University of Utah was one of the first four nodes on the Internet.

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