UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

IBG LLC, INTERACTIVE BROKERS LLC, TRADESTATION GROUP, INC., and TRADESTATION SECURITIES, INC.,

Petitioners

v.

TRADING TECHNOLOGIES INTERNATIONAL, INC.

Patent Owner

Case CBM2016-00087 U.S. Patent 7,412,416

DECLARATION OF CHRISTOPHER H. THOMAS

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	QUALIFICATIONS & BACKGROUND	2
III.	INFORMATION CONSIDERED	8
IV.	PERSON OF ORDINARY SKILL IN THE ART	9
V.	BACKGROUND OF THE INDUSTRY	.12
VI.	CONVENTIONAL GRAPHICAL USER INTERFACE TOOLS ("GUI TOOLS")	.25
VII.	ADVANTAGES OF THE INVENTION	.33
VIII.	CLAIM CONSTRUCTION	.43
IX.	THE CLAIMED INVENTION IS TECHNICAL	.44
X.	CONCLUDING STATEMENTS.	.56

I. INTRODUCTION

I, Christopher H. Thomas, declare as follows:

1. I am over 18 years of age. I have personal knowledge of the facts stated in this declaration and could testify competently to them if asked to do so.

2. I have been retained on behalf of Patent Owner Trading Technologies International, Inc. ("TT") ("Patent Owner") to provide expert opinions in connection with Case CBM2016-00087, regarding United States Patent No. 7,412,416 ("the '416 patent"). I am being compensated for my time spent on this matter, including independent study, document review, analysis, and writing. My opinions stated herein are based on review and analysis of the materials obtained in connection with my work in this matter, together with my education and experience. The opinions stated herein are my own. My compensation is not contingent upon my opinions stated herein or the outcome of this proceeding.

3. I understand that a Petition was filed on June 3, 2016 seeking covered business method ("CBM") review of claims 1 through 24 of the '416 patent, and the petition was subsequently assigned case no. CBM2016-00087. I understand that in the Petition, Petitioners alleged that the claims are unpatentable under 35 U.S.C. § 101 and also provided various grounds under 35 U.S.C. § 103. I understand that the Petitioner did not allege any grounds of anticipation. The PTO instituted CBM review, by decision dated December 1, 2016, for all claims of the '416 patent under § 101 but rejected all asserted § 103 grounds. I also understand that the Petition alleged that certain claims were unpatentable under 35 U.S.C. § 112 and that the PTO instituted review on these grounds as well. However, as those issues are not relevant to my analysis, I will not address them further.

4. I have been asked to address the unconventional nature of the claims of the '416 Patent and in particular, I have been asked to address the advantages of the claimed invention over conventional prior art GUI's that existed at the time of the invention.

II. QUALIFICATIONS & BACKGROUND

5. My curriculum vitae is provided as Exhibit 2201. Briefly, my expertise lies in the field of the engineering, design, and development and construction of graphical user interface ("GUI") tools for electronic trading, such as those used in electronic trade execution systems and proprietary trading systems.

6. I have been actively trading on exchanges worldwide and managing portfolios of futures, commodities, stocks, and stock indexes since 1992. In 1996, I began developing trading decision and execution systems. At that time, my trading became completely reliant on the systems that I had developed. Ultimately, this led to my career in technology as a Chief Technology Officer ("CTO") for several large trading companies and Managing Director of a large Canadian bank.

As CTO of Emerald Market Systems in 1997, I designed and 7. developed an internet quote system that was used by the Chicago Mercantile Exchange to provide free quotes for certain new markets that the exchange was promoting over the internet. The system had two versions. The first version was a HTML based quote application that provided typical last price, best bid and ask price information. The second version was a JAVA based version of the HTML quote application. Both of these versions were used to facilitate trading in the open outcry trading pits. In 1998, I designed and developed for a Chicago-based Futures Commission Merchant, named LFG, the first web browser based trade order entry system for the U.S. commodity markets known as "FuturesOnline." When FuturesOnline was first released to users, there were no electronic exchanges for futures that were available to regular users who were not members of an exchange in the United States. Because of this, FuturesOnline was initially connected to the TOPS system at the Chicago Mercantile Exchange. This allowed traders connected via the internet to send orders using FuturesOnline, which would be routed to the relevant trading pit at the exchange using the TOPS system. FuturesOnline also provided quotes to its traders and also allowed them to view their previous transactions, open orders, account balances, etc. Later, when GLOBEX became available to regular customers of FCMs, FuturesOnline was connected to

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