

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

Cisco Systems, Inc.,  
Petitioner

---

Case IPR2016-\_\_\_\_\_

U.S. Patent No. 8,432,956

---

**DECLARATION OF DR. SAYFE KIAEI UNDER  
37 C.F.R. § 1.68 IN SUPPORT OF PETITION FOR  
*INTER PARTES* REVIEW OF U.S. PATENT NO. 8,432,956**

## TABLE OF CONTENTS

I.	Introduction .....	3
II.	Background and Qualifications .....	6
III.	Understanding of Patent Law .....	8
IV.	THE '956 PATENT.....	11
V.	Level of Ordinary Skill in the Pertinent Art.....	15
VI.	Broadest Reasonable Interpretation.....	17
	A. “during Showtime” .....	18
	B. “array” .....	20
	C. “transceiver” .....	21
	D. Other relevant terms .....	23
VII.	Detailed Invalidity Analysis .....	27
	A. Background on Prior Art References .....	28
	1. Background on Milbrandt.....	28
	2. Background on Hwang .....	29
	3. Background on ANSI T1.413-1995.....	30
	B. Claims 1-10 are Obvious over Milbrandt, Hwang, and ANSI T1.413 .....	31
	1. Reasons to Combine Milbrandt with Hwang .....	31
	2. Reasons to Combine Milbrandt/Hwang with ANSI T1.413 .....	33
VIII.	Challenges .....	36
IX.	Conclusion.....	93

I, Sayfe Kiaei, do hereby declare as follows:

## I. INTRODUCTION

1. I have been retained as an independent expert witness on behalf of Cisco Systems, Inc. (“Cisco”) for the above-captioned Petition for *Inter Partes* Review (“IPR”) of U.S. Patent No. 8,432,956 (“the ’956 patent”). I am being compensated at my usual and customary rate of \$400 per hour for the time I spend in connection with this IPR. My compensation is not affected by the outcome of this IPR.

2. I have been asked to provide my opinions regarding whether claims 1-10 (“the Challenged Claims”) of the ’956 patent are invalid as they would have been obvious to a person having ordinary skill in the art (“POSITA”) at the time of the alleged invention. It is my opinion that all of the limitations of claims 1-10 would have been obvious to a POSITA after reviewing the Milbrandt, Hwang and ANSI T1.413 references, as discussed further below.

3. The ’956 patent issued on April 30, 2013, from U.S. Patent Appl. No. 13/476,310, filed May 21, 2012. The ’310 Application is a continuation of U.S. Patent Appl. No. 12/779,660, filed on May 13, 2010, which is a continuation U.S. Patent Appl. No. 12/477,742, filed on Jun. 3, 2009, which is a continuation of U.S. Patent Appl. No. 10/619,691, filed July 16, 2003, which is a continuation of U.S. Patent Appl. No. 09/755,173, filed on January 8, 2001. The ’956 patent also claims

the benefit of U.S. Provisional Application No. 60/224,308, filed on August 10, 2000, and U.S. Provisional Application No. 60/174,865, filed on January 7, 2000.<sup>1</sup>

4. The face of the '956 patent names David M. Krinsky and Robert Edmund Pizzano, Jr., as the inventors. Further, the face of the '956 patent identifies TQ Delta, LLC as the assignee of the '956 patent.

5. In preparing this Declaration, I have reviewed:

- a) the '956 patent, Ex. 1001;
- b) the file history of the '956 patent, Ex. 1002;
- c) the file histories of the patent applications to which the '956 patent is related, Ex. 1003-1008;
- d) the prior art references discussed below: Ex. 1011 (Milbrandt), Ex. 1013 (Hwang), and Ex. 1014 (ANSI T1.413); and
- e) selected portions of these references, as discussed below:
  - Charles K. Summers, *ADSL Standards, Implementation, and Architecture* (CRC Press 1999) (“Summers”),

---

<sup>1</sup> Although it does not appear that the '956 patent claims are entitled to the provisional date of January 7, 2000, this declaration presents prior art and analysis which demonstrates that the Challenged Claims would have been obvious even as of the provisional date.

- Walter Goralski, *ADSL and DSL Technologies* (McGraw-Hill 1998) (“Goralski”),
- Harry Newton, *Newton’s Telecom Dictionary*, 16th Ed. (2000) (“Newton’s”),
- Valerie Illingworth and John Daintith, *The Facts on File Dictionary of Computer Science* (Market House Books 2001) (“Illingworth”),
- Thomas Starr, John M. Cioffi, Peter J. Silverman, *Understanding Digital Subscriber Line Technology*, (Prentice Hall 1999) (“Starr”),
- Andrew S. Tanenbaum, *Computer Networks* (Prentice Hall 1996) (“Tanenbaum”),
- B. P. Lathi, *Modern Digital and Analog Communication Systems* (Oxford University Press 1998) (“Lathi”), and
- Behzad Razavi, *RF Microelectronics* (Prentice Hall 1997) (“Razavi”).

6. In forming the opinions expressed in this Declaration, I relied upon my education and experience in the relevant field of art, and have considered the viewpoint of a POSITA, as of January 7, 2000. I have also considered:

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.