

Declaration of Ravin Balakrishnan, Ph.D. in Support of
Petitions for *Inter Partes* Review of U.S. Patent Nos. 9,143,561, 10,067,942,
10,289,607, 10,642,787, 10,754,823, and 11,003,622

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BOX, INC., and DROPBOX, INC.,
Petitioners

v.

TOPIA TECHNOLOGY, INC.,
Patent Owner

U.S. Patent No. 9,143,561
Filing Date: November 10, 2008
Issue Date: September 22, 2015

Title: Architecture for Management of Digital Files Across Distributed Network

U.S. Patent No. 10,067,942
Filing Date: September 21, 2015
Issue Date: September 4, 2018

Title: Architecture for Management of Digital Files Across Distributed Network

U.S. Patent No. 10,289,607

Declaration of Ravin Balakrishnan, Ph.D. in Support of
Petitions for *Inter Partes* Review of U.S. Patent Nos. 9,143,561, 10,067,942,
10,289,607, 10,642,787, 10,754,823, and 11,003,622

Filing Date: June 25, 2018

Issue Date: May 14, 2019

Title: Architecture for Management of Digital Files Across Distributed Network

U.S. Patent No. 10,642,787

Filing Date: January 23, 2020

Issue Date: May 5, 2020

Title: Pre-File-Transfer Update Based on Prioritized Metadata

U.S. Patent No. 10,754,823

Filing Date: January 23, 2020

Issue Date: August 25, 2020

Title: Pre-File-Transfer Availability Indication Based on Prioritized Metadata

U.S. Patent No. 11,003,622

Filing Date: March 22, 2019

Issue Date: May 11, 2021

Title: Architecture for Management of Digital Files Across Distributed Network

DECLARATION OF RAVIN BALAKRISHNAN, PH.D.

Declaration of Ravin Balakrishnan, Ph.D. in Support of
Petitions for *Inter Partes* Review of U.S. Patent Nos. 9,143,561, 10,067,942,
10,289,607, 10,642,787, 10,754,823, and 11,003,622

Table of Contents

I.	INTRODUCTION AND QUALIFICATIONS	7
A.	Qualifications and Experience	7
B.	Materials Considered.....	13
II.	PERSON OF ORDINARY SKILL IN THE ART (“POSA”).....	15
III.	STATEMENT OF LEGAL PRINCIPLES.....	18
A.	Claim Construction.....	18
B.	Obviousness.....	20
IV.	OVERVIEW OF THE CHALLENGED PATENTS	25
A.	The Specifications of the Challenged Patents.....	26
B.	File Histories of the Challenged Patents	33
C.	The Challenged Claims of the Challenged Patents	38
V.	THE CHALLENGED CLAIMS OF THE ’823, ’787, ’607, ’622, ’942, AND ’561 PATENTS ALL RECITE SUBJECT MATTER THAT IS NOT DISCLOSED IN U.S. PROVISIONAL APPLICATION NO. 60/986,896	67
A.	The Challenged Claims of the ’823 Patent Each Recite One or More Limitations that are Not Disclosed in the ’896 Provisional	68
B.	The Challenged Claims of the ’787 Patent Each Recite One or More Limitations that are Not Disclosed in the ’896 Provisional	74
C.	The Challenged Claims of the ’607 Patent Each Recite One or More Limitations that are Not Disclosed in the ’896 Provisional	77
D.	The Challenged Claims of the ’622 Patent Each Recite One or More Limitations that are Not Disclosed in the ’896 Provisional	84
E.	The Challenged Claims of the ’942 Patent Each Recite One or More Limitations that are Not Disclosed in the ’896 Provisional	92

Declaration of Ravin Balakrishnan, Ph.D. in Support of
 Petitions for *Inter Partes* Review of U.S. Patent Nos. 9,143,561, 10,067,942,
 10,289,607, 10,642,787, 10,754,823, and 11,003,622

F.	The Challenged Claims of the '561 Patent Each Recite One or More Limitations that are Not Disclosed in the '896 Provisional	98
VI.	THE CHALLENGED CLAIMS OF THE '823, '787, '607, '622, '942, AND '561 PATENTS WOULD HAVE BEEN OBVIOUS IN VIEW OF SIGURDSSON IN COMBINATION WITH ONE OR MORE OF MOROMISATO, RAO AND/OR SHAPPELL	104
A.	Summary of the Prior Art.....	104
B.	'823 Ground 1: Claims 1-4, 8-11, and 13-16 of the '823 Patent Would Have Been Obvious in View of Sigurdsson in Combination with Shappell and Rao.....	123
C.	'823 Ground 2: Claims 1-4, 8-11, and 13-16 of the '823 Patent Would Have Been Obvious in View of Sigurdsson in Combination with Shappell, Rao, and Moromisato.	198
D.	'787 Ground 1: Claims 1-4, 8-11, and 13-16 of the '787 Patent Would Have Been Obvious in View of Sigurdsson in Combination with Shappell and Rao.....	222
E.	'787 Ground 2: Claims 1-4, 8-11, and 13-16 of the '787 Patent Would Have Been Obvious in View of Sigurdsson in Combination with Shappell, Rao, and Moromisato.	244
F.	'607 Ground 1: Claims 1, 3-5, 7, 12, 14, 17, 19, and 20 of the '607 Patent Would Have Been Obvious in View of Sigurdsson in Combination with Shappell and Rao.	250
G.	'607 Ground 2: Claims 1, 3-5, 7, 12, 14, 17, 19, and 20 of the '607 Patent Would Have Been Obvious in View of Sigurdsson in Combination with Shappell, Rao, and Moromisato.	280
H.	'622 Sigurdsson Grounds: Claims 1, 3-5, 7, 11, 12, 14, 16, and 17 of the '622 Patent Would Have Been Obvious in View of Sigurdsson in Combination with One or More of Shappell, Rao, and Moromisato.....	292
I.	'942 Ground 1: Claims 1, 3, 4, 10, 12 and 13 of the '942 Patent Would Have Been Obvious in View of Sigurdsson in Combination with Shappell.....	299

Declaration of Ravin Balakrishnan, Ph.D. in Support of
Petitions for *Inter Partes* Review of U.S. Patent Nos. 9,143,561, 10,067,942,
10,289,607, 10,642,787, 10,754,823, and 11,003,622

J.	'942 Ground 2: Claims 1, 3, 4, 10, 12 and 13 of the '942 Patent Would Have Been Obvious in View of Sigurdsson in Combination with Shappell and Moromisato.	351
K.	'561 Ground 1: Claims 1, 3, 4, 8, 10 and 11 of the '561 Patent Would Have Been Obvious in View of Sigurdsson in Combination with Shappell.	361
L.	'561 Ground 2: Claims 1, 3, 4, 8, 10 and 11 of the '561 Patent Would Have Been Obvious in View of Sigurdsson in Combination with Shappell and Moromisato.	399
VII.	THE CHALLENGED CLAIMS OF THE '823, '787, '607, '622, '942, AND '561 PATENTS WOULD HAVE BEEN OBVIOUS IN VIEW OF BROWN IN COMBINATION WITH HESSELINK AND ONE OR MORE OF RAO AND/OR SHAPPELL	405
A.	Summary of the Prior Art.....	405
B.	'823 Ground 3: Claims 1-4, 8-11, and 13-16 of the '823 Patent Would Have Been Obvious in View of Brown in Combination with Hesselink, Shappell, and Rao.....	416
C.	'787 Ground 3: Claims 1-4, 8-11, and 13-16 of the '787 Patent Would Have Been Obvious in View of Brown in Combination with Hesselink, Shappell, and Rao.....	497
D.	'607 Ground 3: Claims 1, 3-5, 7, 12, 14, 17, 19, and 20 of the '607 Patent Would Have Been Obvious in View of Brown in Combination with Hesselink, Shappell, and Rao.....	519
E.	'622 Brown Grounds: Claims 1, 3-5, 7, 11, 12, 14, 16, and 17 of the '622 Patent Would Have Been Obvious in View of Brown in Combination with Hesselink, Shappell, and Rao... ..	548
F.	'942 Ground 3: Claims 1, 3, 4, 10, 12 and 13 of the '942 Patent Would Have Been Obvious in View of Brown in Combination with Hesselink Alone (Claims 1, 3, 4, 10, 12 and 13) and in Further Combination with Shappell (Claims 4 and 13).	559
G.	'561 Ground 3: Claims 1, 3, 4, 8, 10 and 11 of the '561 Patent Would Have Been Obvious in View of Brown in Combination with Hesselink.	601

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.