UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

JANUARY 1, 2025

PTAS

WALTER W. RICHARDSON
11491 SUNSET HILLS ROAD
SUITE 340
RESTON, VA 20190

**508946066**

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT RECORDATION BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE ASSIGNMENT RECORDATION BRANCH AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT RECORDATION BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 12/31/2024 REEL/FRAME: 069707/0882
NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
RAPPAPORT, THEODORE S. DOC DATE: 12/31/2024

ASSIGNEE:
MASSIVELY BROADBAND LLC
5900 BALCONES DRIVE
SUITE 12392
AUSTIN, TEXAS 78731

APPLICATION NUMBER: 10919515 FILING DATE: 08/17/2004
PATENT NUMBER: 7676194 ISSUE DATE: 03/09/2010
TITLE: BROADBAND REPEATER WITH SECURITY FOR ULTRAWIDEBAND TECHNOLOGIES

APPLICATION NUMBER: 12208007 FILING DATE: 09/10/2008
PATENT NUMBER: 8224794 ISSUE DATE: 07/17/2012
TITLE: CLEARINGHOUSE SYSTEM, METHOD, AND PROCESS FOR INVENTORYING AND ACQUIRING INFRASTRUCTURE, MONITORING AND CONTROLLING NETWORK PERFORMANCE FOR ENHANCEMENT, AND PROVIDING LOCALIZED CONTENT IN COMMUNICATION NETWORKS

APPLICATION NUMBER: 12541764 FILING DATE: 08/14/2009
PATENT NUMBER: 8350763 ISSUE DATE: 01/08/2013
TITLE: ACTIVE ANTENNAS FOR MULTIPLE BANDS IN WIRELESS PORTABLE DEVICES

APPLICATION NUMBER: 12689052 FILING DATE: 01/18/2010
PATENT NUMBER: 7983613 ISSUE DATE: 07/19/2011
TITLE: BROADBAND REPEATER WITH SECURITY FOR ULTRAWIDEBAND TECHNOLOGIES

APPLICATION NUMBER: 12814974 FILING DATE: 06/14/2010
PATENT NUMBER: 8572117 ISSUE DATE: 10/29/2013
TITLE: CLEARINGHOUSE SYSTEM AND METHOD FOR GAINING ACCESS TO USE PROPERTIES FOR CARRIER-BASED SERVICES

APPLICATION NUMBER: 12815165 FILING DATE: 06/14/2010
PATENT NUMBER: 8725700 ISSUE DATE: 05/13/2014
TITLE: CLEARINGHOUSE SYSTEMS AND METHODS FOR COLLECTING OR PROVIDING QUALITY OR PERFORMANCE DATA FOR ENHANCED AVAILABILITY OF WIRELESS COMMUNICATIONS

APPLICATION NUMBER: 13157789 FILING DATE: 06/10/2011
PATENT NUMBER: 8331854 ISSUE DATE: 12/11/2012
TITLE: BROADBAND RELAY FOR ULTRAWIDEBAND TECHNOLOGIES

APPLICATION NUMBER: 13490133 FILING DATE: 06/06/2012
PATENT NUMBER: 8515925 ISSUE DATE: 08/20/2013
TITLE: CLEARINGHOUSE SYSTEM, METHOD, AND PROCESS FOR INVENTORYING AND ACQUIRING INFRASTRUCTURE, MONITORING AND CONTROLLING NETWORK PERFORMANCE FOR ENHANCEMENT, AND PROVIDING LOCALIZED CONTENT IN COMMUNICATION NETWORKS

APPLICATION NUMBER: 13490711 FILING DATE: 06/07/2012
PATENT NUMBER: 8489546 ISSUE DATE: 07/16/2013
TITLE: CLEARINGHOUSE SYSTEMS AND METHODS FOR COLLECTING OR PROVIDING QUALITY, SERVICE, OR ASSET INFORMATION PERTAINING TO WIRELESS COMMUNICATIONS

APPLICATION NUMBER: 13676207 FILING DATE: 11/14/2012
PATENT NUMBER: 8923754 ISSUE DATE: 12/30/2014
TITLE: INTELLIGENT BROADBAND RELAY FOR WIRELESS NETWORKS

APPLICATION NUMBER: 13676215 FILING DATE: 11/14/2012
PATENT NUMBER: 8600295 ISSUE DATE: 12/03/2013
TITLE: NETWORKING METHOD WITH BROADBAND RELAY

APPLICATION NUMBER: 13676246 FILING DATE: 11/14/2012
PATENT NUMBER: 8918049 ISSUE DATE: 12/23/2014
TITLE: NETWORK WITH INTELLIGENT BROADBAND WIRELESS RELAY

APPLICATION NUMBER: 13676262 FILING DATE: 11/14/2012
PATENT NUMBER: 8611812 ISSUE DATE: 12/17/2013
TITLE: BROADBAND WIRELESS RELAY

APPLICATION NUMBER: 13713804 FILING DATE: 12/13/2012
PATENT NUMBER: 8593358 ISSUE DATE: 11/26/2013
TITLE: ACTIVE ANTENNAS FOR MULTIPLE BANDS IN WIRELESS PORTABLE DEVICES

APPLICATION NUMBER: 13966853 FILING DATE: 08/14/2013
PATENT NUMBER: 11063625 ISSUE DATE: 07/13/2021
TITLE: STEERABLE ANTENNA DEVICE

APPLICATION NUMBER: 14540660 FILING DATE: 11/13/2014
PATENT NUMBER: 9722690 ISSUE DATE: 08/01/2017
TITLE: NETWORK AND NETWORKING METHOD WITH INTELLIGENT BROADBAND WIRELESS RELAY FOR CONNECTIVITY TO MOBILE OR PORTABLE DEVICES

APPLICATION NUMBER: 14540773 FILING DATE: 11/13/2014
PATENT NUMBER: 9667337 ISSUE DATE: 05/30/2017
TITLE: INTELLIGENT BROADBAND RELAY FOR WIRELESS NETWORKS FOR CONNECTIVITY TO MOBILE OR PORTABLE DEVICES

APPLICATION NUMBER: 15627903 FILING DATE: 06/20/2017
PATENT NUMBER: 10224999 ISSUE DATE: 03/05/2019
TITLE: BROADBAND REPEATER WITH SECURITY FOR ULTRAWIDEBAND TECHNOLOGIES

APPLICATION NUMBER: 16250099 FILING DATE: 01/17/2019
PATENT NUMBER: 10797783 ISSUE DATE: 10/06/2020
TITLE: BROADBAND REPEATER WITH SECURITY FOR ULTRAWIDEBAND TECHNOLOGIES

APPLICATION NUMBER: 17008740 FILING DATE: 09/01/2020
PATENT NUMBER: 11509386 ISSUE DATE: 11/22/2022
TITLE: BROADBAND REPEATER WITH SECURITY FOR ULTRAWIDEBAND TECHNOLOGIES

APPLICATION NUMBER: 17346533 FILING DATE: 06/14/2021
PATENT NUMBER: 11876548 ISSUE DATE: 01/16/2024
TITLE: STEERABLE ANTENNA DEVICE

APPLICATION NUMBER: 18461998 FILING DATE: 09/06/2023
PATENT NUMBER: ISSUE DATE:
TITLE: CLEARINGHOUSE SYSTEM AND METHOD FOR ENHANCING THE QUALITY, OPERATION AND ACCESSIBILITY OF CARRIER-BASED NETWORKS

APPLICATION NUMBER: 18517550 FILING DATE: 11/22/2023
PATENT NUMBER: ISSUE DATE:
TITLE: STEERABLE ANTENNA DEVICE

ASSIGNMENT RECORDATION BRANCH
PUBLIC RECORDS DIVISION

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

Assignment ID: PATI725770

| | |
|---|---|
| **SUBMISSION TYPE:** | NEW ASSIGNMENT |
| **NATURE OF CONVEYANCE:** | ASSIGNMENT |

**CONVEYING PARTY DATA**

| Name | Execution Date |
|---|---|
| Theodore S. Rappaport | 12/31/2024 |

**RECEIVING PARTY DATA**

| | |
|---|---|
| **Company Name:** | MASSIVELY BROADBAND LLC |
| **Street Address:** | 5900 Balcones Drive |
| **Internal Address:** | Suite 12392 |
| **City:** | Austin |
| **State/Country:** | TEXAS |
| **Postal Code:** | 78731 |

**PROPERTY NUMBERS Total: 23**

| Property Type | Number |
|---|---|
| **Patent Number:** | 7676194 |
| **Patent Number:** | 7983613 |
| **Patent Number:** | 8331854 |
| **Patent Number:** | 8600295 |
| **Patent Number:** | 8611812 |
| **Patent Number:** | 8918049 |
| **Patent Number:** | 8923754 |
| **Patent Number:** | 9667337 |
| **Patent Number:** | 9722690 |
| **Patent Number:** | 10224999 |
| **Patent Number:** | 10797783 |
| **Patent Number:** | 11509386 |
| **Patent Number:** | 8224794 |
| **Patent Number:** | 8489546 |
| **Patent Number:** | 8515925 |
| **Patent Number:** | 8572117 |
| **Patent Number:** | 8725700 |
| **Patent Number:** | 8350763 |
| **Patent Number:** | 8593358 |

| Property Type | Number |
|---|---|
| **Patent Number:** | 11063625 |
| **Patent Number:** | 11876548 |
| **Application Number:** | 18461998 |
| **Application Number:** | 18517550 |

**CORRESPONDENCE DATA**

**Fax Number:**

***Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.***


**Phone:** 7037879400

**Email:** walter@wcf-ip.com

**Correspondent Name:** Walter W. Richardson

**Address Line 1:** 11491 Sunset Hills Road

**Address Line 2:** Suite 340

**Address Line 4:** Reston, VIRGINIA 20190


| | |
|---|---|
| **NAME OF SUBMITTER:** | WALTER RICHARDSON |
| **SIGNATURE:** | WALTER RICHARDSON |
| **DATE SIGNED:** | 12/31/2024 |

**Total Attachments: 3**

source=Assignment#page1.tiff

source=Assignment#page2.tiff

source=Assignment#page3.tiff

**QUITCLAIM ASSIGNMENT**

This Quitclaim Assignment is by Theodore S. Rappaport, of 1416 Ridge Road, PO BOX 33366, Raleigh, North Carolina, 27636-3366 (hereinafter "ASSIGNOR") with respect to the patents and pending patent applications listed in Appendix A hereto, and to all new and useful improvements described therein (hereinafter "the Patents"):

WHEREAS, MASSIVELY BROADBAND LLC of 5900 Balcones Drive, Suite 12392, Austin, Texas, 78731 (hereinafter "ASSIGNEE"), desires to obtain a quitclaim of any right, title, and interest the Assignor may have in or to said Patents.

NOW, THEREFORE, in consideration of the sum of One Dollar ($1.00), and other good and valuable consideration, the receipt of which is hereby acknowledged, I, as ASSIGNOR, do quitclaim, assign, transfer and set over unto ASSIGNEE, its successors, legal representatives and assigns, any right, title, and interest I may have to the Patents, and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed from the Patents in any country or countries foreign to the United States, and all Letters Patent which may be granted for said Patents in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and I hereby authorize and request, to the extent of any right I may have to do so, the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said Patents to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND I DO HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns any claims for damages and all remedies arising out of any violation of the rights assigned hereby that I may have that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of the said Letters Patent before or after issuance.

AND, as part of this Quitclaim Assignment, I make no representations or warranties, either express or implied, as the adequacy of sufficiency of the Patents, their freedom from defects of any kind, including freedom from any claim of patent or trade secret infringement and may result from the use thereof. This Quitclaim Assignment provides no warranties, including warranties of title.

IN TESTIMONY WHEREOF, I hereunto set my hand this day of 31 December 2024.

Theodore S. Rappaport

**Appendix A**

Patent Family 1

US Patent 7,676,194 US Patent 7,983,613 US Patent 8,331,854 US Patent 8,600,295

US Patent 8,611,812 US Patent 8,918,049 US Patent 8,923,754 US Patent 9,667,337

US Patent 9,722,690 US Patent 10,224,999 US Patent 10,797,783 US Patent 11,509,386

Patent Family 2

US Patent 8,224,794 US Patent 8,489,546 US Patent 8,515,925 US Patent 8,572,117

US Patent 8,725,700 IN Patent 341672 AU Patent 2008299011

USSN 18/461,998

Patent Family 3

US Patent 8,350,763 US Patent 8,593,358 US Patent 11,063,625 US Patent 11,876,548

USSN 18/517,550

Notarization in FLORIDA

County of Palm Beach

Sworn to (or affirmed) and subscribed before me by means of physical presence notarization, this 31st day of December, 2024 by Theodore S. Rappaport, who produced a Driver Licence as identification, regarding the attached instrument described as Quitclaim Assignment and to whose signature this notarization applies.

NOTARY PUBLIC
RAYMOND GONZALEZ
Notary Public, State of Florida
Commission# HH 438729
My comm. expires August 28, 2027

(Seal) _____

Notary public signature

Notary public printed name Raymond Gonzalez