### PATENT ASSIGNMENT

## Electronic Version v1.1

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SUBMISSION TYPE:	N TYPE: NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	OF CONVEYANCE: ASSIGNMENT		
CONVEYING PARTY DATA			
Name			Execution Date
Chakravarthi S. Chigurupati		05/17/2012	
Pawan Uberoy		05/17/2012	
Somnath Mani		06/05/2012	
Praveen Madhav		05/17/2012	
Duncan Stuart Ritchie		11/10/2010	
Sebastian Sapa			05/30/2012
RECEIVING PARTY DATA			
Name: Tellabs	Tellabs Operations, Inc.		
Street Address: 1415 W	1415 West Diehl Road		
City: Napervi	Naperville		
State/Country: ILLINOI	ILLINOIS		
Postal Code: 60563			
PROPERTY NUMBERS Total:			
Property Type	ty Type Number		
Application Number: 13526038			
CORRESPONDENCE DATA			
Fax Number:403Correspondence will be sent vitPhone:403Email:jimCorrespondent Name:JanAddress Line 1:84	2801800 wu@jwlawg nes M. Wu W. Santa C n Jose, CAL	<i>hen the fax attempt is unsuccessful.</i> roup.com lara St., Suite 820 .IFORNIA 95113 1057.P0054US (PB11020-21) James M. Wu	
502075915			PATENT REEL: 029032 FRAME: 0203

Total Attachments: 10 source=1057\_P0054US\_PB110020\_21\_Assignment\_partially\_executed#page1.tif source=1057\_P0054US\_PB110020\_21\_Assignment\_partially\_executed#page3.tif source=1057\_P0054US\_PB110020\_21\_Assignment\_partially\_executed#page4.tif source=1057\_P0054US\_PB110020\_21\_Assignment\_partially\_executed#page5.tif source=1057\_P0054US\_PB110020\_21\_Assignment\_partially\_executed#page5.tif source=1057\_P0054US\_PB110020\_21\_Assignment\_partially\_executed#page6.tif source=Ritchie Proprietary Information and Inventors Agreement#page1.tif source=Ritchie Proprietary Information and Inventors Agreement#page3.tif source=Ritchie Proprietary Information and Inventors Agreement#page3.tif

#### ASSIGNMENT

#### WHEREAS, we,

- Chakravarthi Chigurapti, a citizen of United States of America, residing at 818 E. Meadow Dr., Palo Alto, CA, 94301, USA,
- Pawan Uberoy, a citizen of United States of America, residing at 1819 Montage Court, San Jose, CA, 95131, USA,
- Somnath Mani, a citizen of United States of America, residing at 983 East River Pkwy., Santa Clara, CA, 95054, USA,
- Praveen Madhav, a citizen of, United States of America, residing at 1456 Miller Ave., San Jose, CA, 95129, USA
- Duncan Stuart Ritchie, a citizen of Canada, residing at RR #1-U4, Bowen Island, British Columbia, V0N 1G0, Canada, and
- Sebastian Sapa, a citizen of Canada, residing at #301 2121 Alma St., Vancouver, British Columbia, V6R 3R1, Canada

have made an invention in:

#### METHODS AND APPARATUS FOR IMPROVING RELIABILITY OF POINT-TO-POINT NETWORK CONNECTION

for which we have executed application papers for a U.S. patent thereon; and

WHEREAS, Tellabs Operations, Inc., a Delaware Corporation, having a place of business located at 1415 West Diehl Road, Naperville, IL 60563, USA, is desirous of acquiring the exclusive right, title and interest in and to said invention and in and to the Letters Patent to be granted and issued therefore in the United States of America and its territories and possessions, and all countries foreign thereto; NOW, THEREFORE, for a valuable consideration, the receipt of which is hereby acknowledged, we, Chakravarthi Chigurapti, Pawan Uberoy, Somnath Mani, Praveen Madhav, Duncan Stuart Ritchie, and Sebastian Sapa, do sell, assign, transfer and set over unto the said Tellabs Operations, Inc., its successors and assigns the full and exclusive right, title and interest in and to said invention, and in and to any and all Letters Patent to be granted and issued therefore, not only for, to and in the United States of America, its territories and possessions, but also for, to and in all other countries including all priority rights under the International Convention; and we hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to said Tellabs Operations, Inc., its successors and assigns, in accordance with this Assignment. IN TESTIMONY WHEREOF, we have hereunto signed our names on the date indicated hereinafter:

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# Re: U.S. Patent Application entitled:

## METHODS AND APPARATUS FOR PERFORMING IN-SERVICE SOFTWARE UPGRADE FOR A NETWORK DEVICE USING SYSTEM VIRTUALIZATION

1) Inv	entor: Chakravarthi S. Chigurupati	
Signature:	Chakravarthi S. Chigurupati	Date: <u>5/17/20</u> 12-
Witness:	-froots	Date: 17 2.01 2.
Witness:	Ritury	Date: _5/17/12
2) Inve	entor: Pawan Uberoy	
Signature: _	Pawan Uberoy	Date:5/17/12
		Date: $5 17 2012$
Witness:	Grand	Date: 5/17/2012_
3) Inve	ntor: Somnath Mani	
Signature: _	Somnath Mani	Date:
Witness:		Date:
Witness:		Date:

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### Re: U.S. Patent Application entitled:

## METHODS AND APPARATUS FOR PERFORMING IN-SERVICE SOFTWARE UPGRADE FOR A NETWORK DEVICE USING SYSTEM VIRTUALIZATION

### 1) Inventor: Chakravarthi S. Chigurupati

Signature:	Date:
Chakravarthi S. Chigurupati	
Witness:	Date:
Witness:	_ Date:
2) Inventor: Pawan Uberoy	
Signature:	Date:
Pawan Uberoy	
Witness:	_ Date:
Witness:	_ Date:
3) Inventor: Somnath Mani	
Signature: <u>JORNA</u>	Date: 06/15/2017
	ĩ
Witness:	_ Date: <u>6/5/12</u>
Witness:	n Aldin-

PATENT REEL: 029032 FRAME: 0208 Attorney Docket No. 1057 P0054US (PB110020/PB110021)

4) Inventor: Praveen Madhav	
Signature:	Date: 5/17/2012
	Date: _5/17/12
Witness:	Date: 2012_
5) Inventor: Duncan Stuart Ritchie	
Signature: Duncan Stuart Ritchie	Date:
Witness:	Date:
Witness:	Date:
6) Inventor: Sebastian Sapa	
Signature: Sebastian Sapa	Date:
Witness:	Date:
Witness:	Date:

PATENT REEL: 029032 FRAME: 0209

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Signature: Praveen Madhav	Date:
Witness:	Date:
Witness:	Date:
5) Inventor: Duncan Stuart Ritchie	
Signature: Duncan Stuart Ritchie	Date:
Witness:	Date:
Witness:	Date:
6) Inventor: Sebastian Sapa	
Signature:	$  Date: 30/5/2012 $ $  \underline{30/5/2012} $ $  \underline{30/5/2012} $
Witness: James Tar	19 Date: <u>30/5/201</u> 2
Witness:	G MDate: <u>30/5/20</u> 12

4) Inventor: Praveen Madhav

PATENT REEL: 029032 FRAME: 0210

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### PROPRIETARY INFORMATION AND INVENTIONS AGREEMENT

As a material part of the consideration for my employment by Tellabs Communications Canada Ltd., or one of its divisions, subsidiaries, or other affiliates (collectively the "Company"), I hereby agree to the terms set forth below:

- I recognize that the Company is engaged in continuous programs of research, development, 1. production, sales and marketing respecting its business, present and future, including fields generally related to its business, and that the Company possesses and will continue to possess information that has been created, discovered, developed or otherwise become known to the Company and/or in which property rights have been assigned or otherwise conveyed to the Company, which information has commercial value in the business in which the Company is engaged because the information is not available to the general public or otherwise provides commercial value. All of the aforementioned information is hereinafter called "Proprietary Information." Proprietary Information further includes, without limitation, anything (including but not limited to any Invention, as defined below) that I may make or conceive or reduce to practice or learn, either alone or jointly with others during the period of my employment, that is (a) capable of use in connection with the business of the Company, or (b) otherwise relates to the business of Company, or any actual or demonstrably anticipated research and development of the Company, or (c) made or conceived or reduced to practice or learned (i) with the use of the time, equipment, supplies, facilities or trade secret information of the Company, or (ii) as a result of work performed by me for the Company. By way of illustration, but not limitation, Proprietary Information includes trade secrets and other confidential information, formulas, data and know-how, product designs and specifications, computer programs and other software and firmware, other product information, improvements, ideas, concepts, discoveries, inventions, techniques, development plans, marketing plans, strategies, forecasts, copyrightable material, trademarks, employment and other corporate policies, customer lists, corporate records and processes, resumes, and other personnel information. Proprietary Information may include by way of further illustration, without limitation, proprietary information of vendors, partners, clients, customers or other third parties, entrusted to Company by such parties.
- 2. I understand that my employment creates a relationship of confidence and trust between me and the Company with respect to any information:
  - (a) applicable to the business of the Company; or
  - (b) applicable to the business of any vendor, partner, client or customer of the Company, or other third party with whom the Company may engage, which may be made known to me by the Company or by any such vendor, partner, client, customer or other third party, or otherwise learned by me during the period of my employment.

PATENT REEL: 029032 FRAME: 0211

- 3. In consideration of my employment by the Company and the compensation received by me from the Company from time to time, I hereby agree as follows:
  - (a) All Proprietary Information shall be the sole property of the Company and its successors, assigns and nominees, and the Company and its successors, assigns and nominees shall be the sole owner of all patents, copyrights and other rights in connection therewith. I hereby assign to the Company, its successors, assigns and nominees, any rights that I may have or acquire in such Proprietary Information, regardless of whether I hold such rights alone or jointly with others. At all times, both during my employment by the Company and after its termination, I will not use or disclose, nor assist or authorize anyone else in using or disclosing, any Proprietary Information without the written consent of the Company, except as may be necessary in the ordinary course of performing my duties to the Company. I also agree to use my best efforts to otherwise safeguard all Proprietary Information so that it is not made available to unauthorized persons or entities.
  - (b) All documents, records, apparatus, equipment and other physical property, whether or nor pertaining to Proprietary Information, furnished to me by the Company or produced by myself or others in connection with my employment shall be and remain the sole property of the Company and shall be returned to it immediately as and when requested by the Company. Even if the Company does not so request, I shall return and deliver to the Company, and not otherwise dispose or make use of, all such property upon termination of my employment by me or by the Company for any reason and I will not take with me any such property or any reproduction of such property upon such termination.
  - (c) [Intentionally omitted]
  - (d) I will promptly reduce to writing and disclose to the Company, or any persons designated by it, all improvements, discoveries, concepts, inventions, formulas, ideas, processes, techniques, know-how and data, whether or not patentable, made or conceived or reduced to practice or learned by me, either alone or jointly with others, during the term of my employment (all said improvements, discoveries, concepts, inventions, formulas, ideas, processes, techniques, know-how, and data shall be hereinafter collectively called "Inventions").
  - (e) Relative to each of all such Inventions, I will, both during my employment with Company and thereafter, assist the Company in every proper way (without charge to the Company, but at the Company's expense) as the Company may desire to pursue, from time to time enforce, and to further record the vesting of title in Company, its successors, assigns and nominees, any patent, copyright, and/or other right or registration in any and all countries as the Company may desire, and to that end I will without limitation execute, acknowledge and deliver all applications for patent and/or other documents as the Company may request. To the extent that the Company is unable for any reason whatsoever to secure my signature to any lawful and necessary document required to so pursue, enforce and/or to further record vesting of title as described above, I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents, as my agents and

Page 2 of 4

Rev. TCC N3C Nov. 2010 PATENT REEL: 029032 FRAME: 0212 attorneys-in-fact to act on my behalf and instead of me, to execute and file any such application and/or to do all other lawfully permitted acts to further the pursuit, enforcement and/or recordation of title of patents, copyrights and/or other rights or registrations relative to such Inventions with the same legal force and effect as if executed by me.

- (f) As a matter of record I attach hereto a list of all inventions that may be relevant to the subject matter of my employment by the Company which have been made or conceived or first reduced to practice by me, either alone or jointly with others, prior to my employment with the Company ("Prior Inventions"). I covenant that any such attached list is complete. If no such list is attached to this Agreement, I represent that I have no such Prior Inventions. I further agree that I shall not in any way introduce into the business of Company, or otherwise facilitate the use of in the business of Company, any such Prior Inventions of mine without the prior written consent of Company, as memorialized in a written amendment to this Agreement that both cites this Section 3(f) and is executed by an authorized representative of Company.
- (g) I represent that my performance of all the terms of this Agreement will not breach any agreement to keep in confidence proprietary information acquired by me in confidence or in trust prior to my employment by the Company or otherwise. I have not entered into, and I agree I will not enter into, any agreement, either written or oral, in conflict herewith.
- (h) I represent that execution of this Agreement, my employment with the Company and my performance of my proposed duties to the Company in the development of its business will not violate any obligations I may have to any former employer or other third party.
- (i) This Agreement does not require assignment to the Company of any rights to any invention for which no equipment, supplies, facility, or trade secret information of the Company was used and which was developed entirely on my own time, unless (a) the invention relates (i) to the business of the Company, or (ii) to the Company's actual or demonstrably anticipated research or development, or (b) the invention results from any work performed by me for the Company.
- (j) During my employment with the Company, I will not engage in, or be employed by, any business that is competitive to the business of the Company.
- (k) I hereby waive any and all moral rights I may have in any Proprietary Information, and agree that such waiver may be invoked by any person authorized by the Company to use any of the Proprietary Information, and/or by any assignee of any or all of the Company's rights in the Proprietary Information.
- 4. If one or more of the provisions of this Agreement are held to be unenforceable under applicable law, such provision(s) shall be excluded from this Agreement and the balance of the Agreement shall be interpreted as if such provision(s) were so excluded and shall be enforceable in accordance with its terms.
- 5. This Agreement shall be effective as of the first day of my employment by the Company or service for the Company.

Page 3 of 4

- This Agreement shall be binding upon me, my heirs, executors, assigns, and administrators 6. and shall inure to the benefit of the Company, its successors, assigns and nominees.
- The provisions of Sections 1 to 3 (inclusively) of this Agreement shall survive and remain in 7. full force and effect, notwithstanding any termination (whether lawful or not) of this Agreement, your employment with the Company or your employment contract with the Company.
- The provisions of Sections 1 to 3 (inclusively) of this Agreement of this letter are in addition to, 8. and shall not supersede, terminate or cancel, any other restrictive covenants that you have agreed to or are bound by, nor limit any of your fiduciary obligations to the Company. Such provisions are also in addition to, and shall not supersede, terminate or cancel, any other confidentiality obligations you have to the Company, including obligations to safeguard and maintain the confidentiality of personal information.

Dated: <u>Nov 10</u>, 2010

Stuart Ritchie Employee (Print Name)

STAR PUDD Employee (Signature)

Rev. TCC N3C Nov. 2010 PATENT REEL: 029032 FRAME: 0214

Page 4 of 4