

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM529394

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT		
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST		
<b>CONVEYING PARTY DATA</b>			
<b>Name</b>	<b>Formerly</b>	<b>Execution Date</b>	<b>Entity Type</b>
Barefoot Networks, Inc.		06/24/2019	Corporation: DELAWARE
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	SILICON VALLEY BANK		
<b>Street Address:</b>	380 Interlocken Crescent, Suite 600		
<b>City:</b>	Broomfield		
<b>State/Country:</b>	CALIFORNIA		
<b>Postal Code:</b>	80021		
<b>Entity Type:</b>	Corporation: CALIFORNIA		
<b>PROPERTY NUMBERS Total: 3</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Registration Number:</b>	5746571	BAREFOOT	
<b>Registration Number:</b>	5745897	BAREFOOT NETWORKS	
<b>Registration Number:</b>	5745898		
<b>CORRESPONDENCE DATA</b>			
<b>Fax Number:</b>	4152687522		
<i>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.</i>			
<b>Phone:</b>	4152687000		
<b>Email:</b>	ksamia@mofo.com		
<b>Correspondent Name:</b>	Jennifer Lee Taylor		
<b>Address Line 1:</b>	425 Market Street		
<b>Address Line 2:</b>	c/o Morrison & Foerster LLP		
<b>Address Line 4:</b>	San Francisco, CALIFORNIA 94105		
<b>ATTORNEY DOCKET NUMBER:</b>	27292-245		
<b>NAME OF SUBMITTER:</b>	Jennifer Lee Taylor		
<b>SIGNATURE:</b>	/JLT2/		
<b>DATE SIGNED:</b>	06/26/2019		
<b>Total Attachments: 23</b>			
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page1.tif			
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page2.tif			

CH \$90.00 5746571

source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page3.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page4.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page5.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page6.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page7.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page8.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page9.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page10.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page11.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page12.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page13.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page14.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page15.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page16.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page17.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page18.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page19.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page20.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page21.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page22.tif  
source=3 - Intellectual Property Security Agreement (Senior Facility) - Barefoot Networks (June 2019)#page23.tif

## INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this "Agreement") is entered into as of June 24, 2019 by and between **SILICON VALLEY BANK**, a California corporation, with a loan production office located at 380 Interlocken Crescent, Suite 600, Broomfield, Colorado 800214 ("Bank") and **BAREFOOT NETWORKS, INC.**, a Delaware corporation, with its principal place of business located at 4750 Patrick Henry Drive, Santa Clara, California 95054 ("Grantor").

### RECITALS

A. Bank has agreed to make certain advances of money and to extend certain financial accommodations to Grantor (the "Loans") in the amounts and manner set forth in that certain Loan and Security Agreement by and among Bank and Grantor dated as of September 26, 2014, as amended by a certain First Amendment to Loan and Security Agreement dated as of August 4, 2015, and as further amended by a certain Second Amendment to Loan and Security Agreement dated as of the date hereof (as the same has been and as may be further amended, restated, modified or supplemented from time to time, the "Loan Agreement"; capitalized terms used herein are used as defined in the Loan Agreement). Bank is willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Bank a security interest in its Copyrights, Trademarks, Patents, and Mask Works (as each term is described below) to secure the obligations of Grantor to Bank.

B. Pursuant to the terms of the Loan Agreement, Grantor has granted to Bank a security interest in all of Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of Grantor's obligations to Bank, Grantor hereby represents, warrants, covenants and agrees as follows:

### AGREEMENT

1. Grant of Security Interest. To secure Grantor's obligations to Bank, Grantor grants and pledges to Bank a security interest in all of Grantor's right, title and interest in, to and under its intellectual property (all of which shall collectively be called the "Intellectual Property Collateral"), including, without limitation, the following:

(a) Any and all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on Exhibit A attached hereto (collectively, the "Copyrights");

(b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c) Any and all design rights that may be available to Grantor now or hereafter existing, created, acquired or held;

(d) All patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");

(e) Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks");

(f) All mask works or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on Exhibit D attached hereto (collectively, the "Mask Works");

(g) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(h) All licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(i) All amendments, extensions, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and

(j) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

2. Recordation. Grantor authorizes the Commissioner for Patents, the Commissioner for Trademarks and the Register of Copyrights and any other government officials to record and register this Agreement upon request by Bank.

3. Loan Documents. This Agreement has been entered into pursuant to and in conjunction with the Loan Agreement, which is hereby incorporated by reference. The provisions of the Loan Agreement shall supersede and control over any conflicting or inconsistent provision herein. The rights and remedies of Bank with respect to the Intellectual Property Collateral are as provided by the Loan Agreement and related documents, and nothing in this Agreement shall be deemed to limit such rights and remedies.

4. Execution in Counterparts. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page to this Agreement by facsimile or in electronic (i.e., "pdf" or "tif" format) shall be effective as delivery of a manually executed counterpart of this Agreement.

5. Successors and Assigns. This Agreement will be binding on and shall inure to the benefit of the parties hereto and their respective successors and assigns.

6. Governing Law. This Agreement and any claim, controversy, dispute or cause of action (whether in contract or tort or otherwise) based upon, arising out of or relating to this Agreement and the transactions contemplated hereby and thereby shall be governed by, and construed in accordance with, the

laws of the United States and the State of California, without giving effect to any choice or conflict of law provision or rule (whether of the State of California, or any other jurisdiction).

[Signature page follows.]

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

BAREFOOT NETWORKS, INC.

By: Craig Barnett

Title: CEO

BANK:

SILICON VALLEY BANK

By: \_\_\_\_\_

Title: \_\_\_\_\_

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

BAREFOOT NETWORKS, INC.

By: \_\_\_\_\_

Title: \_\_\_\_\_

BANK:

SILICON VALLEY BANK

By: A. H. A.

Title: Managing Director

EXHIBIT A

Copyrights

Description

Registration/  
Application  
Number

Registration/  
Application  
Date

None.



EXHIBIT B

Patents

(see attached)

Title	Application No.	Patent No.	Publication No.	Filing Date
PROXY HASH TABLE	14/507,811	9529531	20160098198	10/6/2014
PROXY HASH TABLE	15/365,887	10268634	-	11/30/2016
PROXY HASH TABLE	16/271,669	-	-	2/8/2019
FAST ADJUSTING LOAD BALANCER	14/507,814	10063479	20160099872	10/6/2014
FAST ADJUSTING LOAD BALANCER	16/049,154	-	20180337860	7/30/2018
HASH TABLE STORING REDUCED SEARCH KEY	15/006,151	10067967	-	1/26/2016
HASH TABLE STORING REDUCED SEARCH KEY	16/047,032	-	-	7/27/2018
HASH TABLE STORING REDUCED SEARCH KEY	62/108,508	-	-	1/27/2015
DYNAMIC MEMORY REALLOCATION FOR MATCH-ACTION PACKET PROCESSING	15/007,209	9880768	20160216913	1/27/2016
DYNAMIC MEMORY REALLOCATION FOR MATCH-ACTION PACKET PROCESSING	16/108,516	-	-	8/22/2018
DYNAMIC MEMORY REALLOCATION FOR MATCH-ACTION PACKET PROCESSING	15/784,336	10078463	-	10/16/2017
DYNAMIC MEMORY REALLOCATION FOR MATCH-ACTION PACKET PROCESSING	62/108,409	-	-	1/27/2015
Virtual Addresses for Action Memories	14/968,840	-	20160246541	12/14/2015
Virtual Memory Pages	62/119,786	-	-	2/23/2015
FAST DETECTION AND IDENTIFICATION OF LOST PACKETS	14/832,221	10044583	20170054619	8/21/2015
PACKET HEADER FIELD EXTRACTION	14/836,850	9825862	20170063690	8/26/2015
PACKET HEADER FIELD EXTRACTION	15/729,555	-	-	10/10/2017
ALGORITHMIC TCAM BASED TERNARY LOOKUP	15/094,914	10318587	-	4/8/2016
ALGORITHMIC TCAM BASED TERNARY LOOKUP	16/383,448	-	-	4/12/2019
ALGORITHMIC TCAM BASED TERNARY LOOKUP	62/221,071	-	-	9/20/2015
IDENTIFYING AND MARKING FAILED EGRESS LINKS IN DATA PLANE	15/150,015	10063407	-	5/9/2016
IDENTIFYING AND MARKING FAILED EGRESS LINKS IN DATA PLANE	16/048,202	-	-	7/27/2018
IDENTIFYING AND MARKING FAILED EGRESS LINKS IN DATA PLANE	62/292,498	-	-	2/8/2016
RESILIENT HASHING FOR FORWARDING PACKETS	15/094,987	10313231	-	4/8/2016
RESILIENT HASHING FOR FORWARDING PACKETS	16/378,491	-	-	4/8/2019
RESILIENT HASHING FOR FORWARDING PACKETS	62/292,507	-	-	2/8/2016
DATA-PLANE STATEFUL PROCESSING UNITS IN PACKET PROCESSING PIPELINES	14/863,961	9912610	20170093986	9/24/2015
DATA-PLANE STATEFUL PROCESSING UNITS IN PACKET PROCESSING PIPELINES	15/888,050	-	20180234355	2/4/2018
FAST DETECTION AND IDENTIFICATION OF LOST PACKETS	14/836,872	10110454	20170054618	8/26/2015
FAST DETECTION AND IDENTIFICATION OF LOST PACKETS	16/108,570	-	20190058646	8/22/2018
Virtual Addresses for Match Memories	14/968,843	-	20160246532	12/14/2015
Coding Scheme for Indirect Addressing of Multiple Action Memories	14/968,844	9910615	20160246535	12/14/2015
Coding Scheme for Indirect Addressing of Multiple Action Memories	15/898,162	10303387	20180239551	2/15/2018
Coding Scheme for Indirect Addressing of Multiple Action Memories	16/376,902	-	-	4/5/2019
CONFIGURING A SWITCH FOR EXTRACTING PACKET HEADER FIELDS	14/836,855	9826071	20170064047	8/26/2015

CONFIGURING A SWITCH FOR EXTRACTING PACKET HEADER FIELDS	15/729,593	10225381	-	10/10/2017
CONFIGURING A SWITCH FOR EXTRACTING PACKET HEADER FIELDS	16/288,074	-	-	2/27/2019
Path and Latency Tracking	62/340,046	-	-	5/23/2016
DATA-PLANE STATEFUL PROCESSING UNITS IN PACKET PROCESSING PIPELINES	14/864,032	9923816	20170093707	9/24/2015
DATA-PLANE STATEFUL PROCESSING UNITS IN PACKET PROCESSING PIPELINES	15/888,054	-	20180234340	2/4/2018
DATA-PLANE STATEFUL PROCESSING UNITS IN PACKET PROCESSING PIPELINES	14/864,088	-	20170093987	9/24/2015
GENERATING CONFIGURATION DATA AND API FOR PROGRAMMING A FORWARDING ELEMENT	15/071,527	-	-	3/16/2016
Storing Packet Data in Mirror Buffer	15/161,263	10230810	-	5/22/2016
Storing Packet Data in Mirror Buffer	16/289,001	-	-	2/28/2019
Packet Coalescing in Mirror Buffer	62/310,608	-	-	3/18/2016
FLEXIBLE PACKET REPLICATION AND FILTERING FOR MULTICAST/BROADCAST	15/091,550	10038624	-	4/5/2016
FLEXIBLE PACKET REPLICATION AND FILTERING FOR MULTICAST/BROADCAST	16/024,985	-	-	7/2/2018
CODING SCHEME FOR IDENTIFYING LOCATION OF ACTION ENTRIES	14/968,847	9940056	20160246507	12/14/2015
CODING SCHEME FOR IDENTIFYING LOCATION OF ACTION ENTRIES	15/898,172	10133499	20180173448	2/15/2018
Coding Scheme for Identifying Location of Action Entities	15/167,552	10075567	-	5/27/2016
PACKET GENERATION IN THE DATA PLANE OF A FORWARDING ELEMENT	16/048,760	-	-	7/30/2018
PACKET GENERATION IN THE DATA PLANE OF A FORWARDING ELEMENT	62/292,517	-	-	5/29/2016
Buffer Space Availability for Different Packet Classes	15/374,828	-	-	12/9/2016
DATA PLANE ERROR DETECTION FOR TERNARY CONTENT-ADDRESSABLE MEMORY (TCAM) OF	15/682,316	10303544	-	8/21/2017
DATA PLANE ERROR DETECTION FOR TERNARY CONTENT-ADDRESSABLE MEMORY (TCAM) OF	16/380,978	-	-	4/10/2019
DATA PLANE ERROR DETECTION FOR TERNARY CONTENT-ADDRESSABLE MEMORY OF A FORW	62/419,451	-	-	11/8/2016
ERROR HANDLING FOR MATCH ACTION UNIT MEMORY OF A FORWARDING ELEMENT	15/682,323	10127983	-	8/21/2017
ERROR HANDLING FOR MATCH ACTION UNIT MEMORY OF A FORWARDING ELEMENT	16/181,095	-	-	11/5/2018
Transmission of Mirror Buffer Contents	15/161,262	-	-	5/22/2016
Hierarchical Queue Scheduler	15/682,479	-	-	8/21/2017
Queue Scheduler Control via Packet Data	62/474,594	-	-	3/21/2017
Hierarchical Queue Scheduler	62/485,145	-	-	4/13/2017
Distributing Key-Value Pairs to Forwarding Elements for Caching	15/730,699	10257122	-	10/11/2017
Distributing Key-Value Pairs to Forwarding Elements for Caching	16/290,899	-	-	3/2/2019
Mechanism for Communicating to Remote Control Plane from Forwarding Element	15/784,190	-	-	10/16/2017
Priority-Based Flow Control	15/374,820	-	-	12/9/2016
Network Forwarding Element with Key-Value Processing in the Data Plane	15/730,700	10305820	-	10/11/2017
Network Forwarding Element with Key-Value Processing in the Data Plane	16/372,370	-	-	4/1/2019
NETWORK FORWARDING ELEMENT WITH DATA COMPUTE CAPABILITIES IN THE DATA PLANE	62/407,465	-	-	10/12/2016
NETWORK FORWARDING ELEMENT WITH DATA COMPUTE CAPABILITIES IN THE DATA PLANE	62/426,873	-	-	11/28/2016
PACKET GENERATION-BASED BIDIRECTIONAL FORWARDING DETECTION	15/261,941	10050854	-	9/10/2016
PACKET GENERATION-BASED BIDIRECTIONAL FORWARDING DETECTION	16/024,908	-	-	7/1/2018

WEIGHTED-COST MULTI-PATHING USING RANGE LOOKUPS	15/382,711	10084687	-	12/18/2016
WEIGHTED-COST MULTI-PATHING USING RANGE LOOKUPS	16/108,623	-	-	8/22/2018
WEIGHTED-COST MULTI-PATHING USING RANGE LOOKUPS	62/423,710	-	-	11/17/2016
USING STATEFUL TRAFFIC MANAGEMENT DATA TO PERFORM PACKET PROCESSING	15/835,238	-	-	12/7/2017
Configurable Packet Processing Pipeline for Handling Non-Packet Data	62/535,934	-	-	7/23/2017
Configurable Packet Processing Pipeline for Handling Non-Packet Data	62/537,917	-	-	7/27/2017
LINK AGGREGATION GROUP FALLOVER FOR MULTICAST	15/449,969	-	-	3/5/2017
DYNAMICALLY RECONFIGURING DATA PLANE OF FORWARDING ELEMENT TO ACCOUNT FOR P	15/683,743	10298456	-	8/22/2017
DYNAMICALLY RECONFIGURING DATA PLANE OF FORWARDING ELEMENT TO ACCOUNT FOR P	16/372,214	-	-	4/1/2019
DYNAMICALLY RECONFIGURING DATA PLANE TO ACCOUNT FOR OPERATING TEMPERATURE O	62/426,674	-	-	11/28/2016
DYNAMICALLY RECONFIGURING DATA PLANE TO ACCOUNT FOR OPERATING TEMPERATURE O	62/456,641	-	-	2/8/2017
PROVIDING PACKET RESILIENCE BETWEEN TWO FORWARDING ELEMENTS	15/924,153	-	-	3/16/2018
PROVIDING PACKET RESILIENCE BETWEEN TWO FORWARDING ELEMENTS	62/472,546	-	-	3/16/2017
EQUAL COST MULTIPLE PATH GROUP FALLOVER FOR MULTICAST	15/449,974	10237206	-	3/5/2017
EQUAL COST MULTIPLE PATH GROUP FALLOVER FOR MULTICAST	16/271,624	-	-	2/8/2019
Remote Control Plane Directing Data Plane Configurator	15/784,191	-	-	10/16/2017
IN-BAND, REMOTELY PROGRAMMABLE FORWARDING ELEMENT	62/452,364	-	-	1/31/2017
FAST RECONFIGURATION OF THE DATA PLANE OF A HARDWARE FORWARDING ELEMENT	15/682,513	-	-	8/21/2017
FAST RECONFIGURATION OF THE DATA PLANE OF A HARDWARE FORWARDING ELEMENT	62/474,004	-	-	3/20/2017
Source Routing Design with Simplified Forwarding Elements	15/948,946	-	-	4/9/2018
Source Routing Design with Simplified Forwarding Elements	62/483,431	-	-	4/9/2017
FORWARDING ELEMENT FOR NETWORK WITH ROUTING PERFORMED AT EDGES	62/640,559	-	-	3/8/2018
GENERATION OF PATH FAILURE MESSAGE AT FORWARDING ELEMENT	PCT/US2019/020842	-	-	3/5/2019
FORWARDING ELEMENT WITH DATA PLANE FLOW LEARNING CIRCUITS	62/474,119	-	-	3/21/2017
NETWORK FORWARDING ELEMENT WITH DATA PLANE PACKET SNAPSHOTTING CAPABILITIES	15/682,332	-	-	8/21/2017
NETWORK FORWARDING ELEMENT WITH DATA PLANE PACKET SNAPSHOTTING CAPABILITIES	62/505,985	-	-	5/15/2017
NETWORK FORWARDING ELEMENT WITH DATA PLANE PACKET SNAPSHOTTING CAPABILITIES	62/525,721	-	-	6/27/2017
FORWARDING ELEMENT WITH A DATA PLANE LOAD BALANCER	15/600,752	10158573	-	5/21/2017
FORWARDING ELEMENT WITH A DATA PLANE LOAD BALANCER	16/180,981	-	-	11/5/2018
FORWARDING ELEMENT WITH A DATA PLANE LOAD BALANCER	62/492,908	-	-	5/1/2017
Packet Replication and Forwarding Based on Payload Sections	15/838,701	-	-	12/12/2017
Packet Replication and Forwarding Based on Payload Sections	62/527,637	-	-	6/30/2017
Configurable Forwarding Element Deparser	15/678,549	-	-	8/16/2017
Configurable Forwarding Element Deparser	62/488,800	-	-	4/23/2017
Configurable Forwarding Element Deparser	62/503,307	-	-	5/8/2017
Packet Reconstruction at Deparser	15/678,556	-	-	8/16/2017
Queue Scheduler Control via Packet Data	15/682,481	-	-	8/21/2017

Path and Latency Tracking	15/600,751	-	-	5/21/2017
Latency Tracking	15/726,347	-	-	10/5/2017
Copying Packet Data to Mirror Buffer	15/836,528	-	-	12/8/2017
Copying Packet Data to Mirror Buffer	62/558,748	-	-	9/14/2017
Generation of Descriptive Data for Packet Fields	15/678,565	-	-	8/16/2017
COMPILER AND HARDWARE INTERACTIONS TO REUSE REGISTER FIELDS IN THE DATA PLANE O	15/682,363	-	-	8/21/2017
COMPILER AND HARDWARE INTERACTIONS TO REUSE REGISTER FIELDS IN THE DATA PLANE O	62/530,289	-	-	7/9/2017
CONFIGURABLE PACKET PROCESSING PIPELINE FOR HANDLING NON-PACKET DATA	15/835,239	-	-	12/7/2017
Pipeline Chaining	15/838,697	-	-	12/12/2017
DYNAMIC ALLOCATION OF UNIT MEMORIES TO MATCH TABLES FOR A NETWORK FORWARDIN	15/833,965	-	-	12/6/2017
DYNAMIC ALLOCATION OF UNIT MEMORIES TO MATCH TABLES FOR A NETWORK FORWARDIN	62/564,702	-	-	9/28/2017
INCREMENTAL UPDATE OF THE DATA PLANE OF A HARDWARE FORWARDING ELEMENT	15/682,515	10164829	-	8/21/2017
INCREMENTAL UPDATE OF THE DATA PLANE OF A HARDWARE FORWARDING ELEMENT	16/219,921	-	-	12/13/2018
COMPILER AND HARDWARE INTERACTIONS TO REMOVE ACTION DEPENDENCIES IN THE DATA	15/682,365	10313495	-	8/21/2017
COMPILER AND HARDWARE INTERACTIONS TO REMOVE ACTION DEPENDENCIES IN THE DATA	16/383,276	-	-	4/12/2019
MULTIPLE COPIES OF STATEFUL TABLES	15/835,242	-	-	12/7/2017
STATEFUL PROCESSING UNIT WITH MIN/MAX CAPABILITY	15/835,247	-	-	12/7/2017
TRANSMISSION OF TRAFFIC MANAGEMENT DATA TO PROCESSING PIPELINE	15/835,249	-	-	12/7/2017
BUS FOR PROVIDING TRAFFIC MANAGEMENT STATISTICS TO PROCESSING PIPELINE	15/835,250	-	-	12/7/2017
DYNAMICALLY RECONFIGURING DATA PLANE OF FORWARDING ELEMENT TO ACCOUNT FOR O	15/683,745	-	-	8/22/2017
DYNAMICALLY RECONFIGURING DATA PLANE OF FORWARDING ELEMENT TO ADJUST DATA PL	15/683,742	-	-	8/22/2017
Generation of Path Failure Message at Forwarding Element	15/948,991	-	-	4/9/2018
Execution of Packet-Specified Actions at Forwarding Element	15/948,992	-	-	4/9/2018
DATA PLANE WITH HEAVY HITTER DETECTOR	16/051,405	-	-	7/31/2018
Messaging Between Remote Controller and Forwarding Element	15/784,192	-	-	10/16/2017
DATA PLANE WITH HEAVY HITTER DETECTOR	16/051,417	-	-	7/31/2018
FORWARDING ELEMENT DATA PLANE WITH FLOW SIZE DETECTOR	62/690,954	-	-	6/28/2018
FORWARDING ELEMENT DATA PLANE WITH FLOW SIZE DETECTOR	PCT/US2019/021467	-	-	3/8/2019
Forwarding Element with a Data Plane DDoS Attack Detector	15/897,361	-	-	2/15/2018
Forwarding Element with a Data Plane DDoS Attack Detector	62/554,024	-	-	9/5/2017
Forwarding Element with a Data Plane DDoS Attack Detector	62/556,470	-	-	9/10/2017
MULTIPLE TYPES OF PACKET DATA CONTAINERS	15/835,235	-	-	12/7/2017
Multiple Types of Packet Data Containers	62/564,659	-	-	9/28/2017
Accurate Packet Flow Statistics	15/985,667	-	-	5/21/2018
Accurate Packet Flow Statistics	62/568,777	-	-	10/5/2017
Accurate Packet Flow Statistics	62/668,694	-	-	5/8/2018
CONFIGURING A NETWORK FORWARDING ELEMENT WITH DATA PLANE PACKET SNAPSHOTTING	15/980,543	-	-	5/15/2018

Data Plane with Heavy Hitter Detector	62/674,596	-	-	5/21/2018
DATA PLANE WITH HEAVY HITTER DETECTOR	PCT/US2019/021456	-	-	3/8/2019
DATA PLANE WITH CONNECTION VALIDATION CIRCUITS	15/986,048	-	-	5/22/2018
DATA PLANE WITH CONNECTION VALIDATION CIRCUITS	62/658,296	-	-	4/16/2018
FORWARDING ELEMENT DATA PLANE WITH FLOW SIZE DETECTOR	16/051,399	-	-	7/31/2018
DATA PLANE PROGRAM VERIFICATION	16/022,601	-	20190108045	6/28/2018
DATA PLANE PROGRAM VERIFICATION	62/571,121	-	-	10/11/2017
DATA PLANE PROGRAM VERIFICATION	62/663,141	-	-	4/26/2018
Forwarding Element Data Plane with Computing Parameter Distributor	62/718,373	-	-	8/13/2018
Forwarding Element Data Plane with Computing Parameter Distributor	PCT/US2019/021429	-	-	3/8/2019
Forwarding Element Data Plane with Computing Parameter Distributor	62/733,441	-	-	9/19/2018
RUNTIME SHARING OF UNIT MEMORIES BETWEEN MATCH TABLES IN A NETWORK FORWARDING	15/986,795	-	-	5/22/2018
RUNTIME SHARING OF UNIT MEMORIES BETWEEN MATCH TABLES IN A NETWORK FORWARDING	62/569,641	-	-	10/9/2017
Forwarding Element Data Plane with Computing Parameter Distributor	16/147,750	-	-	9/30/2018
Forwarding Element Integrated Circuit Chip with Separate I/O and Switching Tiles	15/896,018	-	-	2/13/2018
Forwarding Element Integrated Circuit Chip with Separate I/O and Switching Tiles	62/612,059	-	-	12/29/2017
Flow Control Visibility	16/108,661	-	-	8/22/2018
Flow Control Visibility	62/712,927	-	-	7/31/2018
Flow Control Visibility	PCT/US2019/021459	-	-	3/8/2019
Forwarding Element with a Data Plane DDOS Attack Detector	15/897,366	-	-	2/15/2018
EXPANSION OF PACKET DATA WITHIN PROCESSING PIPELINE	15/835,233	-	-	12/7/2017
IDENTIFYING CONGESTION IN A NETWORK	15/895,908	-	-	2/13/2018
Chained Longest Prefix Matching in Programmable Switch	15/927,663	-	-	3/21/2018
Longest Prefix Matching in Programmable Switch	62/638,954	-	-	3/6/2018
CHAINED LONGEST PREFIX MATCHING IN PROGRAMMABLE SWITCH	PCT/US2019/020846	-	-	3/5/2019
Algorithmic Longest Prefix Matching in Programmable Switch	15/927,684	-	-	3/21/2018
DATA PLANE WITH FLOW LEARNING CIRCUIT	15/927,723	-	-	3/21/2018
FORWARDING ELEMENT WITH FLOW LEARNING CIRCUIT IN ITS DATA PLANE	15/927,868	-	-	3/21/2018
DATA PLANE FOR LEARNING FLOWS, COLLECTING METADATA REGARDING LEARNED FLOWS A	15/927,859	-	-	3/21/2018
Verification of Access Control List Rules	15/948,990	-	-	4/9/2018
FORWARDING ELEMENT FOR NETWORK WITH ROUTING PERFORMED AT EDGES	62/646,341	-	-	3/21/2018
Forwarding Element Data Plane with Computing Parameter Distributor	16/147,754	-	-	9/30/2018
Forwarding Element Data Plane Performing Floating Point Computations	16/147,755	-	-	9/30/2018
AUGMENTING DATA PLANE FUNCTIONALITY WITH FIELD PROGRAMMABLE INTEGRATED CIRCUIT	62/847,284	-	-	5/13/2019
Data Plane Circuit Performing Character Pattern Identification	62/751,832	-	-	10/29/2018

EXHIBIT C

Trademarks

(see attached)

Barefoot Networks – Active Trademark Status Report - April 2019

Mark	Country	Status	Class Goods/Services	Application No.	Application Date	Registration No.	Registration Date	Status/Next Due Date
BAREFOOT	United States	Allowed	Class 09: Integrated circuits; computer networking systems, namely, computer hardware and operating system software for operating computer networks	87/6883090	Nov-13-2017			Statement of Use Filed. Awaiting review.
BAREFOOT	United States	Allowed	Class 41: Education services, namely, organizing and providing live, broadcast, and on-line classes, seminars, webinars, conferences, workshops, training and curriculum development in the field of networking technology	87/6883099	Nov-13-2017			Statement of Use or EOT3 Due Oct-03-2019
BAREFOOT	United States	Allowed	Class 42: Providing design, development, maintenance and support for the development, deployment, installation, implementation, analysis, modification, integration and management of computer software, computer hardware, and computer networks; technical consulting and research services in the fields of computer software, computer hardware, and computer networks; customization and configuration of computer software, computer hardware, and computer networks; technical support services, namely, trouble-shooting in the nature of diagnosing computer software, computer hardware, and computer network problems	87/6883114	Nov-13-2017			Statement of Use or EOT3 Due Oct-03-2019

TRADEMARK



Mark	Country	Status	Class Goods/Services	Application No.	Application Date	Registration No.	Registration Date	Status/Next Due Date
<b>BAREFOOT</b> BAREFOOT & Design	European Union	Registered	<p><b>Class 09:</b> Integrated circuits; computer networking systems; namely, computer hardware and operating system software for operating computer networks; computer hardware; computer software; downloadable computer software; downloadable instruction manuals in electronic form; electronic circuits; printed circuits; control circuits; electrical circuits; printed electronic circuits; microchips; semiconductors; integrated electronic circuits; hybrid integrated circuits; large scale integrated circuits; electronic memory circuits; printed circuit boards incorporating integrated circuits; parts and fittings for the aforesaid goods.</p> <p><b>Class 41:</b> Education services; namely, organizing, sponsoring, and providing live, broadcast, and on-line classes, seminars, webinars, conferences, workshops, training and curriculum development in the field of networking technology; education; providing of training; arranging and conducting of conferences, congresses and seminars.</p> <p><b>Class 42:</b> Providing design, development, maintenance and support for the development, deployment, installation, implementation, analysis, modification, integration and management of computer software; computer hardware, and computer networks; technical consulting and research services in the fields of computer software, computer hardware, and computer networks; customization and configuration of computer software; computer hardware, and computer networks; technical support services; namely, troubleshooting in the nature of diagnosing computer software; computer hardware, and computer network problems; updating of computer software; maintenance of computer software; computer software design; computer programming; computer system design; duplication of computer programs.</p>	017395294	Oct-27-2017	017395294	Feb-22-2018	Renewal Deadline Oct-27-2027

TRADEMARK

REEL: 006679 FRAME: 0115

Mark	Country	Status	Class Goods/Services	Application No.	Application Date	Registration No.	Registration Date	Status/Next Due Date
<b>BAREFOOT</b> BAREFOOT & Design	India	Allowed	<p><b>Class 09:</b> Integrated circuits; computer networking systems; namely, computer hardware and operating system software for operating computer networks</p> <p><b>Class 41:</b> Education services, namely organizing, sponsoring, and providing live, broadcast, and on-line classes, seminars, webinars, conferences, workshops, training and curriculum development in the field of network technology.</p> <p><b>Class 42:</b> Providing design, development, maintenance and support for the development, deployment, installation, implementation, analysis, modification, integration and management of computer software; computer hardware, and computer networks; technical consulting and research services in the fields of computer software, computer hardware, and computer networks; customization and configuration of computer software, computer hardware, and computer networks; technical support services, namely, trouble-shooting in the nature of diagnosing computer software, computer hardware, and computer network problems.</p>	36821787	Nov-20-2017			Application accepted and will publish shortly.

**TRADEMARK**

**REEL: 006679 FRAME: 0116**

Mark	Country	Status	Class Goods/Services	Application No.	Application Date	Registration No.	Registration Date	Status/Next Due Date
<b>BAREFOOT</b> BAREFOOT & Design	Japan	Registered	<p><b>Class 09:</b> Integrated circuits; computer networking systems; namely, computer hardware and operating system software for operating computer networks; electronic machines, apparatus and their parts.</p> <p><b>Class 41:</b> Education services; namely, organizing, sponsoring, and providing live, broadcast, and on-line classes, seminars, webinars, conferences, workshops, training and curriculum development in the field of networking technology.</p> <p><b>Class 42:</b> Providing design, development, maintenance and support for the development, deployment, installation, implementation, analysis, modification, integration and management of computer software; computer hardware, and computer networks; technical consulting and research services in the fields of computer software; computer hardware, and computer networks; customization and configuration of computer software; computer hardware, and computer networks; technical support services; namely, trouble-shooting in the nature of diagnosing computer software, computer hardware, and computer network problems.</p>	2017-143812	Oct-31-2017	6099428	Nov-16-2018	Registration Fee 2nd installment deadline Nov-16-2023

**TRADEMARK**

**REEL: 006679 FRAME: 0117**

Mark	Country	Status	Class Goods/Services	Application No.	Application Date	Registration No.	Registration Date	Status/Next Due Date
<b>BAREFOOT</b> BAREFOOT & Design	Republic of Korea	Registered	Class 09: Computer networking systems, namely, computer hardware and operating system software for operating computer networks Class 41: Education services, namely organizing, sponsoring, and providing live, broadcast, and on-line classes, seminars, webinars, conferences, workshops, training and curriculum development in the field of network technology. Class 42: Providing design, development, maintenance and support for the development, deployment, installation, implementation, analysis, modification, integration and management of computer software, computer hardware, and computer networks; technical consulting and research services in the fields of computer software, computer hardware, and computer networks; customization and configuration of computer software, computer hardware, and computer networks; technical support services, namely, trouble-shooting in the nature of diagnosing computer software, computer hardware, and computer network problems.	40-2017- 0136731	Oct-30-2017	40-1386392	Aug-10-2018	Renewal Deadline Aug-10-2028

TRADEMARK

REEL: 006679 FRAME: 0118

Mark	Country	Status	Class Goods/Services	Application No.	Application Date	Registration No.	Registration Date	Status/Next Due Date
<b>BAREFOOT</b> BAREFOOT & Design	Taiwan	Registered	Class 09: Integrated circuits; computer networking systems, namely, computer hardware and operating system software for operating computer networks. Class 41: Education services, namely, organizing, sponsoring, and providing live, broadcast, and on-line classes, seminars, webinars, conferences, workshops, training and curriculum development in the field of networking technology. Class 42: Providing design, development, maintenance and support for the development, deployment, installation, implementation, analysis, modification, integration and management of computer software; computer hardware, and computer networks; technical consulting and research services in the fields of computer software, computer hardware, and computer networks; customization and configuration of computer software; computer hardware, and computer networks; technical support services, namely, trouble-shooting in the nature of diagnosing computer software, computer hardware, and computer network problems.	106078106	Dec-08-2017	01937494	Sep-01-2018	Renewal Deadline Aug-31-2028
BAREFOOT NETWORKS	United States	Allowed	Class 09: Integrated circuits; computer networking systems, namely, computer hardware and operating system software for operating computer networks	87/041451	May-18-2016			Statement of Use Filed. Awaiting review.
BAREFOOT NETWORKS	United States	Allowed	Class 41: Education services, namely, organizing and providing live, broadcast, and on-line classes, seminars, webinars, conferences, workshops, training and curriculum development in the field of networking technology	87/588778	Aug-29-2017			Statement of Use or EOT3 Due Sep-27-2019

TRADEMARK

REEL: 006679 FRAME: 0119



Mark	Country	Status	Class Goods/Services	Application No.	Application Date	Registration No.	Registration Date	Status/Next Due Date
BAREFOOT NETWORKS	United States	Allowed	Class 42: Providing design, development, maintenance and technical support for the development, deployment, installation, implementation, analysis, modification, integration and management of computer software and computer networks; technical consulting and research services in the fields of computer software, computer hardware, and computer networks; customization and configuration of computer software, computer hardware, and computer networks; technical support services, namely, trouble-shooting in the nature of diagnosing computer software, computer hardware, and computer network problems	87/588826	Aug-29-2017			Statement of Use or EOT3 Due Sep-27-2019
BAREFOOT NETWORKS BAREFOOT NETWORKS & Design	China	Published	Class 09: Computer network server; Computer operating software; Computer hardware; Plotters; Photocopiers [photographic, electrostatic, thermic]; Teleprinters / teletypewriters; Electronic notice boards; Light-emitting electronic pointers; Digital signs; Network communication device; Cameras [photography]; Screens [photography]; Projection apparatus; Surveying instruments; Counters/ meters; Computerized vehicle engines analyzer; Integrated circuits	27908973	Dec-06-2017			If no oppositions are filed, application will register shortly.
BAREFOOT NETWORKS BAREFOOT NETWORKS & Design	China	Registered	Class 41: Educational services; Instruction services; Coaching [training]; Training for communication technology; Arranging and conducting of conferences; Arranging and conducting of workshops [training]; Arranging and conducting of seminars; Lending library services; Mobile library services/Bookmobile services; Library for literature and documentary records reference; Publication of books; Providing on-line electronic publications, not downloadable; Electronic desktop publishing; On-line publication of electronic books and journals; Distribution of video cassettes; Providing on-line videos, not downloadable; Game services provided on-line from a computer network	27908974	Dec-06-2017	27908974	Dec-14-2018	Renewal Deadline Dec-13-2028


TRADEMARK

REEL: 006679 FRAME: 0120

**TRADEMARK**

**REEL: 006679 FRAME: 0121**

Mark	Country	Status	Class Goods/Services	Application No.	Application Date	Registration No.	Registration Date	Status/Next Due Date
<b>BAREFOOT NETWORKS</b> BAREFOOT NETWORKS & Design	China	Registered	Class 42: Technical project studies; Telecommunications technology consultancy; Quality checking and testing; Quality system certification; Design and development for multi-media products; Industrial design; Computer programming; Computer software design; Updating of computer software; Computer system analysis; Computer system design; Computer hardware design; Computer security consultancy; Duplication of computer programs; Providing information on computer technology and programming via a web site; Maintenance of computer software; Recovery of computer data; Computer virus protection services; monitoring of computer systems to detect breakdowns	27908975	Dec-06-2017	27908975	Nov-21-2018	Renewal Deadline Nov-20-2028
CAPILANO	United States	Allowed	Class 09: Software development kit for developing software for integrated circuits	87/070851	Jun-14-2016			Statement of Use or EOT5 Due Jun-06-2019
DEEP INSIGHT	United States	Allowed	Class 09: Integrated circuits, networks servers, and computer network switches	87/676751	Nov-08-2017			Statement of Use or EOT3 Due Sept-13-2019
 INFINITY FOOT LOGO	United States	Allowed	Class 09: Integrated circuits; computer networking systems, namely, computer hardware and software for operating computer networks	87/041494	May-18-2016			Statement of Use Filed. Awaiting review.
 INFINITY FOOT LOGO	United States	Allowed	Class 41: Education services, namely, organizing and providing live, broadcast, and on-line classes, seminars, webinars, conferences, workshops, training and curriculum development in the field of networking technology	87/588811	Aug-29-2017			Statement of Use or EOT3 Due Sep-27-2019

Mark	Country	Status	Class Goods/Services	Application No.	Application Date	Registration No.	Registration Date	Status/Next Due Date
 INFINITY FOOT LOGO	United States	Allowed	Class 42: Providing design, development, maintenance and technical support for the development, deployment, installation, implementation, analysis, modification, integration and management of computer software and computer networks; technical consulting and research services in the fields of computer software, computer hardware, and computer networks; customization and configuration of computer software, computer hardware, and computer networks; technical support services, namely, trouble-shooting in the nature of diagnosing computer software, computer hardware, and computer network problems	87/588836	Aug-29-2017			Statement of Use or EOT3 Due Sep-27-2019
	European Union	Registered	Class 09: Integrated circuits; electronic circuits; printed circuits; control circuits; electrical circuits; semiconductors; integrated electronic circuits; hybrid integrated circuits; large scale integrated circuits; electronic memory circuits; printed circuit boards incorporating integrated circuits; parts and fittings for the aforesaid goods	017390915	Oct-26-2017	017390915	Feb-09-2018	Renewal Deadline Oct-26-2027
	India	Registered	Class 09: Integrated circuits	3682177	Nov-20-2017	3682177	Jun-01-2018	Renewal Deadline Nov-20-2027
	Japan	Pending	Class 09: Integrated circuits	2017-142686	Oct-27-2017			Refusal issued and response filed Oct-2018. Awaiting review.
	Republic of Korea	Registered	Class 09: Integrated circuits	40-2017-0136089	Oct-27-2017	40-1375536	Jul-06-2018	Renewal Deadline Jul-06-2028
TOFINO	Taiwan	Registered	Class 09: Integrated circuits	106078105	Dec-08-2017	01926206	Jul-16-2018	Renewal Deadline Jul-15-2028
TOFINO	United States	Allowed	Class 09: Integrated circuits	87/058463	Jun-02-2016			Statement of Use or EOT4 Due May-09-2019

TRADEMARK

REEL: 006679 FRAME: 0122



EXHIBIT D

Mask Works

Description

Registration/  
Application  
Number

Registration/  
Application  
Date

None.