PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6871486

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
MAVENIR SYSTEMS, INC.	08/18/2021

RECEIVING PARTY DATA

Name:	JPMORGAN CHASE BANK, N.A.
Street Address:	CIB DMO WLO, MAIL CODE NY1-C413, 4 CMC
City:	BROOKLYN
State/Country:	NEW YORK
Postal Code:	11245-0001

PROPERTY NUMBERS Total: 61

Property Type	Number
Patent Number:	9749286
Patent Number:	9712488
Patent Number:	10225232
Patent Number:	9716996
Patent Number:	10021560
Patent Number:	8462770
Patent Number:	8363665
Patent Number:	9756524
Patent Number:	10506467
Patent Number:	8682322
Patent Number:	10004003
Patent Number:	9204361
Patent Number:	9363744
Patent Number:	10028175
Patent Number:	9906616
Patent Number:	9521145
Patent Number:	9549317
Patent Number:	9210615
Patent Number:	8503434
Patent Number:	10171548

PATENT REEL: 057221 FRAME: 0801

506824666

Property Type	Number			
Patent Number:	8837365			
Patent Number:	9614979			
Patent Number:	7564853			
Patent Number:	8477785			
Patent Number:	7039037			
Patent Number:	9526005			
Patent Number:	9832714			
Application Number:	15299714			
Patent Number:	8887235			
Patent Number:	8868083			
Patent Number:	8280373			
Patent Number:	9781624			
Patent Number:	10327137			
Patent Number:	7283539			
Patent Number:	8150927			
Patent Number:	8503438			
Patent Number:	8423760			
Patent Number:	7995519			
Patent Number:	8693401			
Patent Number:	7649895			
Patent Number:	9232370			
Patent Number:	9544337			
Patent Number:	9641415			
Patent Number:	9380486			
Patent Number:	8121147			
Patent Number:	9756681			
Patent Number:	8073473			
Patent Number:	9560515			
Patent Number:	10932166			
Patent Number:	10212192			
Patent Number:	10341906			
Patent Number:	10064146			
Patent Number:	9913252			
Patent Number:	7774006			
Patent Number:	7760684			
Patent Number:	7813730			
Patent Number:	10873851			
Application Number:	17213490			

Property Type	Number
Application Number:	17335655
Application Number:	17350147
Application Number:	17382594

CORRESPONDENCE DATA

Fax Number: (800)914-4240

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: 8007130755

Email: james.murray@wolterskluwer.com, ecarrera@cahill.com

CT CORPORATION **Correspondent Name:**

Address Line 1: 4400 EASTON COMMONS WAY

Address Line 2: **SUITE 125**

Address Line 4: COLUMBUS, OHIO 43219

NAME OF SUBMITTER:	ELAINE CARRERA
SIGNATURE:	/Elaine Carrera/
DATE SIGNED:	08/18/2021

Total Attachments: 14

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RECORDATION FORM COVER SHEET PATENTS ONLY				
To the Director of the U.S. Patent and Trademark Office: Pleas	e record the attached documents or the new address(es) below.			
Name of conveying party(ies) Mavenir Systems, Inc.	2. Name and address of receiving party(ies) Name: JPMorgan Chase Bank, N.A. Internal Address:			
Additional name(s) of conveying party(ies) attached? Yes No 3. Nature of conveyance/Execution Date(s): Execution Date(s) August 18, 2021	Street Address: CIB DMO WLO, Mail Code NY1-C413, 4 CMC			
Assignment Merger ∑Security Agreement Change of Name	City: Brooklyn			
Joint Research Agreement	State: NY			
Government Interest Assignment Executive Order 9424, Confirmatory License	Country: USA Zip: 11245-0001			
Other	Additional name(s) & address(es) attached? Yes XNo			
4. Application or patent number(s): A. Patent Application No.(s) See Schedule A	document serves as an Oath/Declaration (37 CFR 1.63). B. Patent No.(s) See Schedule A			
Additional numbers att	ached? XYes No			
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 61			
Name: Elaine Carrera, Senior Paralegal	7. Total fee (37 CFR 1.21(h) & 3.41) \$			
Internal Address:	Authorized to be charged to deposit account			
Street Address: c/o Cahill Gordon & Reindel LLP,	Enclosed			
32 Old Slip	None required (government interest not affecting title)			
City: New York	8. Payment Information			
State: NY Zip: 10005				
Phone Number: (212) 701-3365	Panadi Aangust Mumba			
Docket Number:	Deposit Account Number			
Ernail Address:_ecarrera@cahill.com	Authorized UserName			
9. Signature: Slava Car Signature	August 18, 2021			
(Date			
Elaine Carrera Name of Person Signing	Total number of pages including cover sheet, attachments, and documents:			

INTELLECTUAL PROPERTY SECURITY AGREEMENT (PATENTS)

This **INTELLECTUAL PROPERTY SECURITY AGREEMENT** (as amended, amended and restated, supplemented or otherwise modified from time to time, the "<u>IP Security Agreement</u>") dated as of August 18, 2021, is among the Persons listed on the signature pages hereof (collectively, the "<u>Grantors</u>") and JPMorgan Chase Bank, N.A., as collateral agent (the "<u>Collateral Agent</u>") for the Secured Parties (as defined in the Credit Agreement referred to below).

WHEREAS, Mavenir Systems, Inc., a Delaware corporation (together with any other Co-Borrower, the "Borrower") and Mavenir Private Holdings II Ltd, a company incorporated in England and Wales with registered number 10159026 ("Holdings") have entered into the Credit Agreement dated as of August 18, 2021 (as amended, restated, amended and restated, supplemented, replaced, refinanced or otherwise modified from time to time, the "Credit Agreement"), with the lenders and financial institutions from time to time party thereto and JPMorgan Chase Bank, N.A., as Administrative Agent, Collateral Agent and an L/C Issuer. Capitalized terms defined in the Credit Agreement or in the Security Agreement (as defined below) and not otherwise defined herein are used herein as defined in the Credit Agreement or the Security Agreement, as the case may be (and in the event of a conflict, the applicable definition shall be the one given to such term in the Security Agreement).

WHEREAS, as a condition precedent to the making of the Loans by the Lenders from time to time and the issuance of Letters of Credit by the L/C Issuers from time to time, the entry into Secured Hedge Agreements by the Hedge Banks from time to time and the entry into Secured Cash Management Agreements by the Cash Management Banks from time to time, each Grantor has executed and delivered that certain Security Agreement, dated as of August 18, 2021 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Security Agreement"), among the Grantors from time to time party thereto and the Collateral Agent.

WHEREAS, under the terms of the Security Agreement, the Grantors have granted to the Collateral Agent, for the benefit of the Secured Parties, a security interest in, among other property, certain intellectual property of the Grantors, and have agreed thereunder to execute this IP Security Agreement for recording with the USPTO.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor agrees as follows:

- A. <u>Grant of Security</u>. Each Grantor, as collateral security for the prompt and complete payment and performance of the Secured Obligations of such Grantor, hereby grants to the Collateral Agent (and its successors and permitted assigns), for the benefit of the Secured Parties, a security interest in and to all of such Grantor's right, title and interest in and to the following, whether now owned or hereafter acquired by the undersigned (the "<u>Collateral</u>"):
- a. all patents and patent applications, including, without limitation, those set forth in Schedule A hereto (the "Patents");

- b. all reissues, divisions, continuations, continuations-in-part, extensions, renewals and reexaminations of any of the foregoing, all rights in the foregoing provided by international treaties or conventions, all rights corresponding thereto throughout the world and all other rights of any kind whatsoever of such Grantor accruing thereunder or pertaining thereto;
- c. any and all claims for damages and injunctive relief for past, present and future infringement, dilution, misappropriation, violation, misuse or breach with respect to any of the foregoing, with the right, but not the obligation, to sue for and collect, or otherwise recover, such damages; and
- d. any and all proceeds of, collateral for, income, royalties and other payments now or hereafter due and payable with respect to, and supporting obligations relating to, any and all of the Collateral of or arising from any of the foregoing; <u>provided</u> that notwithstanding anything to the contrary contained in the foregoing clauses (a) through (d), the security interest created hereby shall not extend to, and the term "Collateral" shall not include, any Excluded Property.
- B. <u>Security for Obligations</u>. The grant of a security interest in, the Collateral by each Grantor under this IP Security Agreement secures the payment of all Secured Obligations of such Grantor now or hereafter existing under or in respect of the Secured Documents (as such Secured Documents may be amended, restated, amended and restated, supplemented, replaced, refinanced or otherwise modified from time to time (including any increases of the principal amount outstanding thereunder)). Without limiting the generality of the foregoing, this IP Security Agreement secures, as to each Grantor, the payment of all amounts that constitute part of the Secured Obligations that would be owed by such Grantor to any Secured Party under the Secured Documents but for the fact that they are unenforceable or not allowable due to the existence of a bankruptcy, or reorganization or similar proceeding involving a Loan Party.
- C. <u>Recordation</u>. Each Grantor authorizes and requests that the Commissioner for Patents record this IP Security Agreement.
- D. <u>Execution in Counterparts; Electronic Execution</u>. This IP Security Agreement may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. The words "execution," "execute", "signed," "signature," and words of like import in this IP Security Agreement or any amendment or other modification hereof shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable Law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act.
- E. <u>Grants, Rights and Remedies</u>. This IP Security Agreement has been entered into in conjunction with the provisions of the Security Agreement. Each Grantor does hereby acknowledge and confirm that the grant of the security interest hereunder to, and the rights and remedies of, the Collateral Agent with respect to the Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated herein by reference as if

fully set forth herein. In the event of any conflict between the terms of this IP Security Agreement and the terms of the Security Agreement, the terms of the Security Agreement shall govern.

- F. <u>Governing Law; Jurisdiction; Etc.</u> Sections 10.15, 10.16 and 10.17 of the Credit Agreement are hereby incorporated by reference, mutatis mutandis.
- G. <u>Intercreditor Agreement</u>. Notwithstanding any provision to the contrary in this IP Security Agreement (but without expanding the scope of the Collateral as set forth in this IP Security Agreement and the Credit Agreement), in the event of any conflict or inconsistency between the provisions of the First Lien/Second Lien Intercreditor Agreement (or any other intercreditor agreement entered into by the Collateral Agent in accordance with Section 9.11 of the Credit Agreement) and this IP Security Agreement, the provisions of the First Lien/Second Lien Intercreditor Agreement or such other intercreditor agreement, as applicable, shall prevail.

[SIGNATURE PAGES FOLLOW]

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IN WITNESS WHEREOF, the Grantor and the Collateral Agent have caused this Patent Security Agreement to be duly executed and delivered by its officer thereunto duly authorized as of the date first written above.

MAVENIR SYSTEMS, INC.

Title: Executive Vice President, Chief

Legal Officer and Corporate

Secretary

JPMORGAN CHASE BANK, N.A.,

as Collateral Agent

By: /-/ // Name: Eleftherios Karsos

Title: Authorized Officer

REEL: 057221 FRAME: 0809

SCHEDULE A

Patents

Title	Pat No. Pub No. App No.	Pat Date Pub Date App Date	Current Owner	Status
METHOD AND SYSTEM FOR	9749286	08-29-2017	MAVENIR	Granted
OPTIMIZED LOAD BALANCING	20160021572	01-21-2016	SYSTEMS, INC.	
ACROSS DISTRIBUTED DATA	14/801,615	07-16-2015		
PLANE PROCESSING ENTITIES				
FOR MOBILE CORE NETWORK				
METHOD AND SYSTEM FOR IDLE	9712488	07-18-2017	MAVENIR	Granted
MODE TRANSFER FOR LOAD	20160021573	01-21-2016	SYSTEMS, INC.	
BALANCING ACROSS	14/801,629	07-16-2015		
DISTRIBUTED DATA PLANE				
PROCESSING ENTITIES FOR				
MOBILE CORE NETWORK				
METHOD AND SYSTEM FOR IDLE	10225232	03-05-2019	MAVENIR	Granted
MODE TRANSFER FOR LOAD	20170353427	12-07-2017	SYSTEMS, INC.	
BALANCING ACROSS	15/628,516	06-20-2017		
DISTRIBUTED DATA PLANE				
PROCESSING ENTITIES FOR				
MOBILE CORE NETWORK				
METHOD AND SYSTEM FOR	9716996	07-25-2017	MAVENIR	Granted
SELECTIVE AND SECURE	20140349611	11-27-2014	SYSTEMS, INC.	
INTERACTION OF BYOD (BRING	13/899,533	05-21-2013		
YOUR OWN DEVICE) WITH				
ENTERPRISE NETWORK				
THROUGH MOBILE WIRELESS				
NETWORKS				
METHOD AND SYSTEM FOR	10021560	07-10-2018	MAVENIR	Granted
SELECTIVE AND SECURE	20170353852	12-07-2017	SYSTEMS, INC.	
INTERACTION OF BYOD (BRING	15/628,507	06-20-2017		
YOUR OWN DEVICE) WITH				
ENTERPRISE NETWORK				
THROUGH MOBILE WIRELESS				
NETWORKS				
METHOD AND SYSTEM FOR	8462770	06-11-2013	MAVENIR	Granted
BYPASSING 3GPP PACKET	20100027533	02-04-2010	SYSTEMS, INC.	
SWITCHED CORE NETWORK	12/415,853	03-31-2009		
WHEN ACCESSING INTERNET				
FROM 3GPP UES USING 3GPP				
RADIO ACCESS NETWORK				

	Pat No.	Pat Date		
Title	Pub No. App No.	Pub Date App Date	Current Owner	Status
METHOD AND SYSTEM FOR BYPASSING 3GPP PACKET	8363665 20100077102	01-29-2013 03-25-2010	MAVENIR SYSTEMS, INC.	Granted
SWITCHED CORE NETWORK	12/620,969	11-18-2009	5151EMS, INC.	
WHEN ACCESSING INTERNET				
FROM 3GPP UES USING IP-BTS,				
FEMTO CELL, OR LTE ACCESS				
NETWORK	075(504	00.05.2017	MANIENID	Cuantad
METHOD AND SYSTEM FOR SIGNALING SAVING ON RADIO	9756524 20140056132	09-05-2017 02-27-2014	MAVENIR SYSTEMS, INC.	Granted
ACCESS NETWORKS USING	13/972,760	08-21-2013	5151EMS, INC.	
EARLY THROTTLING	13/7/2,700	00 21 2013		
MECHANISM FOR				
COMMUNICATION DEVICES				
METHOD AND SYSTEM FOR	10506467	12-10-2019	MAVENIR	Granted
SIGNALING SAVING ON RADIO	20170359751	12-14-2017	SYSTEMS, INC.	
ACCESS NETWORKS USING	15/639,810	06-30-2017		
EARLY THROTTLING MECHANISM FOR				
COMMUNICATION DEVICES				
INTERNETWORKING FOR	8682322	03-25-2014	MAVENIR	Granted
CIRCUIT SWITCHED FALLBACK	20120302234	11-29-2012	SYSTEMS, INC.	
	13/480,792	05-25-2012		
INTERNETWORKING FOR	10004003	06-19-2018	MAVENIR	Granted
CIRCUIT SWITCHED FALLBACK-			SYSTEMS, INC.	
NETWORK INITIATED USSD	20170332285	11-16-2017		
REQUEST/NOTIFICATION PROCEDURE MOBILE-	14/403,996	05-20-2015		
TERMINATED LOCATION				
REQUEST PROCEDURE PROVIDE				
SUBSCRIBER INFORMATION				
PROCEDURE				
METHOD AND SYSTEM FOR	9204361	12-01-2015	MAVENIR	Granted
SCALABLE AND MANAGEABLE	20150117308	04-30-2015	SYSTEMS, INC.	
NON-ACCESS STRATUM (NAS)	14/067,272	10-30-2013		
NODE SELECTION FUNCTION FOR EVOLVED PACKET SYSTEM				
METHOD AND SYSTEM FOR	9363744	06-07-2016	MAVENIR	Granted
SCALABLE AND MANAGEABLE	20160050620	02-18-2016	SYSTEMS, INC.	Stanted
NON-ACCESS STRATUM (NAS)	14/856,248	09-16-2015		
NODE SELECTION FUNCTION				
FOR EVOLVED PACKET				
SYSTEMS				

	Pat No.	Pat Date		
Title	Pub No.	Pub Date	Current Owner	Status
Time	App No.	App Date	Current Owner	Surus
SYSTEMS AND METHODS FOR	10028175	07-17-2018	MAVENIR	Granted
SINGLE RADIO VOICE CALL	20160353331	12-01-2016	SYSTEMS, INC.	Granica
CONTINUITY IN A MULTI-LINE,	14/992,771	01-11-2016		
MULTI-DEVICE SERVICE	Í			
ENVIRONMENT IN A				
COMMUNICATIONS NETWORK				
SYSTEMS AND METHODS FOR	9906616	02-27-2018	MAVENIR	Granted
MULTI-LINE, MULTI-DEVICE	20160352855	12-01-2016	SYSTEMS, INC.	
SERVICE IN A	14/992,791	01-11-2016		
COMMUNICATIONS NETWORK				
METHODS AND APPARATUSES	9521145	12-13-2016	MAVENIR	Granted
TO PROVIDE SECURE	20130097418	04-18-2013	SYSTEMS, INC.	
COMMUNICATION BETWEEN AN	13/326,191	12-14-2011		
UNTRUSTED WIRELESS ACCESS				
NETWORK AND A TRUSTED				
CONTROLLED NETWORK	0.7.10.0.1.7	04.45.0045	26.775275	
METHODS AND APPARATUSES	9549317	01-17-2017	MAVENIR	Granted
TO PROVIDE SECURE	20130097674	04-18-2013	SYSTEMS, INC.	
COMMUNICATION BETWEEN AN	13/572,573	08-10-2012		
UNTRUSTED WIRELESS ACCESS				
NETWORK AND A TRUSTED CONTROLLED NETWORK				
METHOD AND SYSTEM FOR	9210615	12-08-2015	MAVENIR	Granted
ELASTIC AND RESILIENT 3G/4G	20140078988	03-20-2014	SYSTEMS, INC.	Granted
MOBILE PACKET NETWORKING	14/029,784	09-17-2013	5151EM5, INC.	
FOR SUBSCRIBER DATA FLOW	14/02/,/04	05-17-2013		
USING VIRTUALIZED				
SWITCHING AND FORWARDING				
METHOD AND SYSTEM FOR	8503434	08-06-2013	MAVENIR	Granted
INSERTING A NEW NODE INTO A	20110075659	03-31-2011	SYSTEMS, INC.	
COMMUNICATIONS PATH	12/568,613	09-28-2009		
BETWEEN TWO EXISTING	ĺ			
NODES WITHOUT DISRUPTION				
METHOD AND SYSTEM FOR	10171548	01-01-2019	MAVENIR	Granted
EFFICIENT ENRICHMENT OF	20160065644	03-03-2016	SYSTEMS, INC.	
UPPER LAYER PROTOCOL	14/469,049	08-26-2014		
CONTENT IN TRANSMISSION				
CONTROL PROGRAM (TCP)				
BASED SESSIONS				
METHOD AND SYSTEM FOR	8837365	09-16-2014	MAVENIR	Granted
SECURELY ROUTING TRAFFIC	20130051316	02-28-2013	SYSTEMS, INC.	
ON X2 INTERFACE IN A 3GPP	13/309,332	12-01-2011		
NETWORK				

	Pat No.	Pat Date		
Title	Pub No.	Pub Date	Current Owner	Status
CHOREN AND METHOD FOR	App No.	App Date	MANUENIE	
SYSTEM AND METHOD FOR	9614979	04-04-2017	MAVENIR SYSTEMS INC	Granted
GENERATING CHARGING DATA	20160295025	10-06-2016	SYSTEMS, INC.	
FOR SHORT MESSAGE DELIVERY INTER-WORKING BETWEEN	14/677,083 7564853	04-02-2015	MAVENIR	Granted
UMA AND SIP SIGNALING	11/351,834	02-09-2006	SYSTEMS, INC.	Granted
METHOD AND SYSTEM FOR	8477785	07-02-2013	MAVENIR	Granted
INTERWORKING A WLAN INTO A	20120008578	01-12-2012	SYSTEMS, INC.	Granieu
WWAN FOR SESSION AND	13/177,353	07-06-2011	SISIEMS, INC.	
MOBILITY MANAGEMENT	13/177,333	07-00-2011		
METHOD AND APPARATUS FOR	7039037	05-02-2006	MAVENIR	Granted
PROVIDING SERVICE	20030035409	02-20-2003	SYSTEMS, INC.	Granted
SELECTION, REDIRECTION AND	09/933,781	08-20-2001		
MANAGING OF SUBSCRIBER	0,7,500,7,01	00 20 2001		
ACCESS TO MULTIPLE WAP				
(WIRELESS APPLICATION				
PROTECOL) GETEWAYS				
SIMULTANEOUSLY				
GSM A3/A8 AUTHENTICATION IN	9526005	12-20-2016	MAVENIR	Granted
AN IMS NETWORK	20150304846	10-22-2015	SYSTEMS, INC.	
	14/683,483	04-10-2015		
METHOD AND SYSTEM FOR	9832714	11-28-2017	MAVENIR	Granted
NETWORK NODE SELECTION	20160242110	08-18-2016	SYSTEMS, INC.	
BASED USER EQUIPMENT	14/622,545	02-13-2015		
AGENT ASSISTED				
MODIFICATION OF TEMPORARY				
IDENTITY IN 3G AND 4G				
NETWORKS	20170127272	05.04.2017	MANIENIID	D 1.11.11
METHOD AND SYSTEM FOR SECURE DISTRIBUTION OF	20170127273	05-04-2017 10-21-2016	MAVENIR SYSTEMS INC	Published
MOBILE DATA TRAFFIC TO	13/299,/14	10-21-2010	SYSTEMS, INC.	
CLOSER NETWORK ENDPOINTS				
AUTHENTICATION	8887235	11-11-2014	MAVENIR	Granted
INTERWORKING	20080092212	04-17-2014	SYSTEMS, INC.	Granica
A.Z.E. OKIMIO	11/550,343	10-17-2006	SISILINIS, IIIC.	
DISCOVERING CELLULAR	8868083	10-21-2014	MAVENIR	Granted
NETWORK ELEMENTS	20080293433	11-27-2008	SYSTEMS, INC.	
	12/119,633	05-13-2008		
TERMINAL DEVICE CONTROL	8280373	10-02-2012	MAVENIR	Granted
SERVER AND METHOD FOR	20090061863	03-05-2009	SYSTEMS, INC.	
CONTROLLING ACCESS TO A	11/849,940	09-04-2007		
MOBILE COMMUNICATION				
NETWORK				

	Pat No.	Pat Date		a.
Title	Pub No. App No.	Pub Date App Date	Current Owner	Status
SYSTEM AND METHOD FOR	9781624	10-03-2017	MAVENIR	Granted
INTUITIVE PACKET BUFFERING	20160128078	05-05-2016	SYSTEMS, INC.	
AND ADAPTIVE PAGING	14/529,901	10-31-2014		
SYSTEM AND METHOD FOR	10327137	06-18-2019	MAVENIR	Granted
DETECTING MALICIOUS	20160277926	09-22-2016	SYSTEMS, INC.	
ATTACKS IN A	14/658,324	03-16-2015		
TELECOMMUNICATION				
NETWORK				
METHOD AND SYSTEM FOR	7283539	10-16-2007	MAVENIR	Granted
MANAGING MESSAGE-BASED	20030227894	12-11-2003	SYSTEMS, INC.	
APPLICATIONS AND	10/164,605	06-10-2002		
APPLICATIONS PROVIDERS IN A				
COMMUNICATIONS NETWORK				
PROCESSING OF MESSAGES TO	8150927	04-03-2012	MAVENIR	Granted
BE TRANSMITTED OVER	20080189373	08-07-2008	SYSTEMS, INC.	
COMMUNICATION NETWORKS	11/719,515	11-18-2007		
METHOD AND SYSTEM FOR	8503438	08-06-2013	MAVENIR	Granted
SELECTIVELY BYPASSING	20110116499	05-19-2011	SYSTEMS, INC.	
PACKET CORE NETWORK	12/949,624	11-18-2010		
WITHIN A SESSION BASED ON				
TRAFFIC TYPE				
METHOD AND SYSTEM FOR	8423760	04-16-2013	MAVENIR	Granted
REDUCING PACKET OVERHEAD	20110208959	08-25-2011	SYSTEMS, INC.	
FOR AN LTE ARCHITECTURE	12/711,140	02-23-2010		
WHILE SECURING TRAFFIC IN				
AN UNSECURED ENVIRONMENT				
CENTRALISED MANAGEMENT	7995519	08-09-2011	MAVENIR	Granted
FOR A SET OF NETWORK NODES	20090098861	04-16-2009	SYSTEMS, INC.	
	11/885,311	03-21-2006		
METHOD AND SYSTEM FOR	8693401	04-08-2014	MAVENIR	Granted
OPTIMIZED HANDLING OF	20130021972	01-24-2013	SYSTEMS, INC.	
CONTEXT USING HIERARCHICAL	13/553,772	07-19-2012		
GROUPING (FOR MACHINE TYPE				
COMMUNICATIONS)	= <4000 =	04.40.6010	16.44	
APPARATUS AND METHOD FOR	7649895	01-19-2010	MAVENIR	Granted
ROUTING MULTIMEDIA	20050141522	06-30-2005	SYSTEMS, INC.	
MESSAGES BETWEEN A USER	10/747,366	12-30-2003		
AGENT AND MULTIPLE				
MULTIMEDIA MESSAGE				
SERVICE CENTERS				

	Pat No.	Pat Date		
Title	Pub No.	Pub Date	Current Owner	Status
	App No.	App Date		
ENHANCED CONVERGED IP	9232370	01-05-2016	MAVENIR	Granted
MESSAGE SERVER SYSTEM AND	20140222901	08-07-2014	SYSTEMS, INC.	
METHOD	14/169,229	01-31-2014		
CONVERGED MEDIA PACKET	9544337	01-10-2017	MAVENIR	Granted
GATEWAY FOR A NOVEL LTE	20150063346	03-05-2015	SYSTEMS, INC.	
DATA AND VOICE CORE	14/477,002	09-04-2014		
NETWORK ARCHITECTURE				
METHOD AND SYSTEM FOR	9641415	05-02-2017	MAVENIR	Granted
SEAMLESS SCTP FAILOVER	20150256436	09-10-2015	SYSTEMS, INC.	
BETWEEN SCTP SERVERS	14/636,165	03-02-2015		
RUNNING ON DIFFERENT				
MACHINES				
METHOD AND SYSTEM FOR	9380486	06-28-2016	MAVENIR	Granted
SIGNALING REDUCTION ON	20150327112	11-12-2015	SYSTEMS, INC.	
RADIO ACCESS NETWORKS	13/763,372	02-08-2013		
USING TARGETED				
INTELLIGENCE FOR				
COMMUNICATION DEVICES				
CONTEXT-SENSITIVE	8121147	02-21-2012	MAVENIR	Granted
MULTIMEDIA MESSAGE	20070070979	03-29-2007	SYSTEMS, INC.	
SERVICE RESPONSE	11/234,648	09-23-2005		
SYSTEM AND METHOD FOR	9756681	09-05-2017	MAVENIR	Granted
PROVIDING IP VERSION	20160057788	02-25-2016	SYSTEMS, INC.	
INTERWORKING FOR IMS	14/465,303	08-21-2014		
ACCESS THROUGH EPC				
METHOD FOR PROCESSING A	8073473	12-06-2011	MAVENIR	Granted
MESSAGE	20070191035	08-16-2007	SYSTEMS, INC.	
	11/559,463	11-14-2006		
SYSTEM AND METHOD FOR	9560515	01-31-2017	MAVENIR	Granted
SUPPLEMENTARY SERVICES	20160100306	04-07-2016	SYSTEMS, INC.	
SETTING SYNCHRONIZATION	14/508,078	10-07-2014		
METHOD AND SYSTEM FOR	10932166	02-23-2021	MAVENIR	Granted
SESSION RESILIENCE IN PACKET	20190223062	07-18-2019	SYSTEMS, INC.	
GATEWAYS	16/360,156	03-21-2019		
SYSTEMS AND METHODS FOR	10212192	02-19-2019	MAVENIR	Granted
INTERWORKING WITH OVER	20180198830	07-12-2018	SYSTEMS, INC.	
THE TOP APPLICATIONS IN	15/402,608	01-10-2017		
COMMUNICATIONS NETWORK				
SYSTEM AND METHOD FOR	10341906	07-02-2019	MAVENIR	Granted
CIRCUIT SWITCHED FALLBACK	20180035335	02-01-2018	SYSTEMS, INC.	
IN IMS CENTRALIZED SERVICES	15/727,734	10-09-2017		

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	Dez Nie	Dot Date		
Title	Pat No. Pub No.	Pat Date Pub Date	Current Owner	Status
Title	App No.	App Date	Current Owner	Status
METHOD AND SYSTEM FOR	10064146	08-28-2018	MAVENIR	Granted
SUPPLEMENTARY SERVICES	20170086155	03-23-2017	SYSTEMS, INC.	Granicu
SYNCHRONIZATION ACROSS	15/274,379	09-23-2017	5151LM5, INC.	
NETWORKS	13/2/4,3/9	09-23-2010		
COMMUNICATION SYSTEM AND	9913252	03-06-2018	MAVENIR	Granted
METHOD FOR MULTI-LINE,	20170201965	07-13-2017	SYSTEMS, INC.	
MULTI-DEVICE SERVICE WITH	14/992,848	01-11-2016		
USER CAPABILITY DISCOVERY				
APPARATUS AND METHOD FOR	7774006	08-10-2010	MAVENIR	Granted
IMPROVING SHORT MESSAGE	20070178919	08-02-2007	SYSTEMS, INC.	
SERVICE DEPENDABILITY	11/351,566	02-10-2006		
MEASURING MEDIA	7760684	07-20-2010	MAVENIR	Granted
DISTRIBUTION AND IMPACT IN	20070191040	08-16-2007	SYSTEMS, INC.	
A MOBILE COMMUNICATION	11/674,355	02-13-2007		
NETWORK				
PROVIDING MOBILE CORE	7813730	10-12-2010	MAVENIR	Granted
SERVICES INDEPENDENT OF A	20080091824	04-17-2008	SYSTEMS, INC.	
MOBILE DEVICE	11/550,334	10-17-2006		
METHOD AND SYSTEM FOR	10873851	12-22-2020	MAVENIR	Granted
SCALABLE DOWNLINK DATA	20200092714	03-19-2020	SYSTEMS, INC.	
LOAD DISTRIBUTION BETWEEN	16/494,170	09-13-2019		
DATA PROCESSING UNITS FOR				
MOBILE PACKET DATA				
GATEWAY USING NETWORK				
ADDRESS TRANSLATION				
DECODING UPLINK IN A MASSIVE	17/213490	3/26/21	MAVENIR	Pending
MULTIPLE INPUT MULTIPLE			SYSTEMS, INC.	
OUTPUT WIRELESS			,	
COMMUNICATION SYSTEM FOR AN OPEN RADIO ACCESS NETWORK				
OI EN RADIO ACCESS NET WORK				
METHOD FOR ENABLING NON-	17/335655	6/1/21	MAVENIR	Pending
DELAY MANAGED TRAFFIC FOR O-				
RAN FRONTHAUL INTERFACE IN			SYSTEMS, INC.	
CLOUD RAN SYSTEMS				
METHOD FOR ASSIGNING	17/350147	6/17/21	MAVENIR	Pending
IDENTIFIERS TO FRONTHAUL			SYSTEMS, INC.	
TRAFFIC FLOW IN O-RAN			a ratema, inc.	
COMPLIANT RADIO ACCESS				
NETWORK				

Title	Pat No. Pub No. App No.	Pat Date Pub Date App Date	Current Owner	Status
METHOD FOR SELECTING THE TRANSPORT NETWORK LAYER ASSOCIATION (TNLA) WITHIN 5G RAN SYSTEMS	17/382594	7/22/21	MAVENIR SYSTEMS, INC.	Pending