

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4464374

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
ASENTINEL, LLC	06/16/2017
TANGOE, INC.	06/16/2017

RECEIVING PARTY DATA

Name:	OBSIDIAN AGENCY SERVICES, INC., C/O TENNENBAUM CAPITAL PARTNERS, LLC
Street Address:	2951 28TH STREET
Internal Address:	SUITE 1000
City:	SANTA MONICA
State/Country:	CALIFORNIA
Postal Code:	90405

PROPERTY NUMBERS Total: 40

Property Type	Number
Patent Number:	7340422
Patent Number:	7805342
Patent Number:	8712878
Application Number:	14263117
PCT Number:	US2004003917
Patent Number:	7065496
Patent Number:	7412403
Patent Number:	7917641
Patent Number:	8209428
Patent Number:	8527644
Patent Number:	8433618
Patent Number:	7184749
Patent Number:	7366493
Patent Number:	8374579
Patent Number:	6681106
Patent Number:	6574465
Patent Number:	6813488
Patent Number:	7072639

PATENT

Property Type	Number
Patent Number:	7664484
Patent Number:	7761083
Patent Number:	7844263
Patent Number:	9473922
Application Number:	15270055
Patent Number:	8412154
Patent Number:	8626119
Patent Number:	8923810
Patent Number:	9344552
Patent Number:	7136467
Patent Number:	9325718
Patent Number:	9531652
Patent Number:	9191523
Patent Number:	9584672
Application Number:	15443728
Application Number:	14864420
Application Number:	14263772
Application Number:	14560201
Application Number:	14550434
Application Number:	15130496
Patent Number:	8588736
PCT Number:	US2016052850

CORRESPONDENCE DATA

Fax Number: (312)902-1061

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.

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Correspondent Name: VICKIE LEE C/O KATTEN MUCHIN ROSENMAN

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Address Line 4: CHICAGO, ILLINOIS 60661

ATTORNEY DOCKET NUMBER:	389395.00001
NAME OF SUBMITTER:	VICKIE LEE
SIGNATURE:	/Vickie Lee/
DATE SIGNED:	06/16/2017

Total Attachments: 9
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Patent Security Agreement

Patent Security Agreement, dated as of June 16, 2017, by ASENTINEL, LLC and TANGOE, INC. (individually, a “Grantor”, and, collectively, the “Grantors”), in favor of OBSIDIAN AGENCY SERVICES, INC., c/o Tennenbaum Capital Partners, LLC, 2951 28th Street, Suite 1000, Santa Monica, California 90405, in its capacity as collateral agent pursuant to the Credit Agreement (in such capacity, the “Collateral Agent”).

WITNESSETH:

WHEREAS, the Grantors are party to a Guarantee and Collateral Agreement, dated as of June 16, 2017 (as amended, amended and restated, supplemented or otherwise modified from time to time, the “GCA”), in favor of the Collateral Agent pursuant to which the Grantors are required to execute and deliver this Patent Security Agreement;

NOW, THEREFORE, in consideration of the premises and to induce the Collateral Agent, for the benefit of the Secured Parties, to enter into the Credit Agreement, the Grantors hereby agree with the Collateral Agent as follows:

SECTION 1. Defined Terms. Unless otherwise defined herein, terms defined in the GCA and used herein have the meaning given to them in the GCA.

SECTION 2. Grant of Security Interest in Patent and Patent License Collateral. Each Grantor hereby pledges and grants to the Collateral Agent for the benefit of the Secured Parties a lien on and security interest in and mortgage on all of its right, title and interest in, to and under all the following Collateral of such Grantor:

- A. all Patents of such Grantor listed on Schedule I attached hereto;
- B. all Proceeds of any and all of the foregoing; and
- C. all rights to sue for past, present or future infringements thereof.

Notwithstanding anything to the contrary contained in clauses A, B and C above, the security interest created by this Patent Security Agreement shall not extend to any Collateral excluded from the GCA.

SECTION 3. Guarantee and Collateral Agreement. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to the Collateral Agent pursuant to the GCA and the Grantors hereby acknowledge and affirm that the rights and remedies of the Collateral Agent with respect to the security interest in the Patents and Patent Licenses made and granted hereby are more fully set forth in the GCA, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. In the event that any provision of this Patent Security Agreement is deemed to conflict with the GCA, the provisions of the GCA shall control.

SECTION 4. Termination. Upon the payment in full of the Secured Obligations (other than unasserted contingent indemnification obligations and unasserted expense reimbursement obligations) and termination of the GCA, the Collateral Agent shall execute, acknowledge, and deliver to the Grantors an instrument in writing in recordable form releasing the collateral pledge, grant,

assignment, lien and security interest in the Patents and Patent Licenses under this Patent Security Agreement.

SECTION 5. Counterparts. This Patent Security Agreement may be executed in any number of counterparts, all of which shall constitute one and the same instrument, and any party hereto may execute this Patent Security Agreement by signing and delivering one or more counterparts.

[signature page follows]

IN WITNESS WHEREOF, each Grantor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

Very truly yours,

ASENTINEL, LLC, a Delaware limited liability company

By:  _____

Name: Joseph Sulak

Title: President and Assistant Secretary

TANGOE, INC., a Delaware corporation

By: Robb Warwick

Name: Robb Warwick

Title: Vice President

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[Signature Page to Patent Security Agreement]

PATENT
REEL: 042734 FRAME: 0561

Accepted and Agreed:

OBSIDIAN AGENCY SERVICES, INC.,
as Collateral Agent

By: 
Name: Rajneesh Vig
Title: Vice President

SCHEDULE I
to
PATENT SECURITY AGREEMENT
PATENT REGISTRATIONS , PATENT APPLICATIONS AND PATENT LICENSES

Asentinel, LLC U.S. Patents

	Title	Country	Application No./ Filing Date	Patent No./ Reg. Date	Status
1.	Systems And Method For Managing And Processing Of Telecommunications Invoices	U.S.	10/361,519 (02/10/2003)	7,340,422 (03/04/2008)	Issued
2.	Systems And Methods For Identifying And Processing Telecommunications Billing Exceptions	U.S.	12/031,406 (02/14/2008)	7,805,342 (09/28/2010)	Issued
3.	Systems And Methods For Analyzing Telecommunications Invoices For Payment	U.S.	12/031,399 (02/14/2008)	8,712,878 04/29/2014)	Issued
4.	Systems And Methods For Telecommunication Expense Management	U.S.	14/263,117 (04/28/2014)	N/A	Pending
5.	System And Method For Managing And Processing Telecommunication Invoices	PCT	PCT/US2004/ 003917 (02/10/2004)	N/A	Pending

Tangoe Inc. U.S. Patents

	Title	Country	Application No./ Filing Date	Patent No./ Reg. Date	Status
1.	System For Managing Equipment, Services And Service Provider Agreements	US	10/365,006 (02/12/2003)	7,065,496 (06/20/2006)	ISSUED
2.	System For Managing Services And Service Provider Agreements	US	11/451,104 (06/12/2006)	7,412,403 (08/12/2008)	ISSUED

	Title	Country	Application No./ Filing Date	Patent No./ Reg. Date	Status
3.	Apparatus And Method For Provisioning Wireless Data Communication Devices	US	11/717,851 (03/14/2007)	7,917,641 (03/29/2011)	ISSUED
4.	Apparatus And Method For Provisioning Wireless Data Communication Devices	US	13/041,060 (03/04/2011)	8,209,428 (06/26/2012)	ISSUED
5.	Apparatus And Method For Provisioning Wireless Data Communication Devices	US	13/476,544 (05/21/2012)	8,527,644 (09/03/2013)	ISSUED
6.	Systems And Methods For Streamlining The Provisioning Of Wireless Applications In An Organization	US	11/831,133 (07/31/2007)	8,433,618 (04/30/2013)	ISSUED
7.	System And Method For Analyzing Wireless Communication Data	US	09/758,815 (01/11/2001)	7,184,749 (02/27/2007)	ISSUED
8.	System And Method For Analyzing Wireless Communication Data	US	11/126,091 (05/10/2005)	7,366,493 (04/29/2008)	ISSUED
9.	System And Method For Analyzing Wireless Communication Data	US	11/843,188 (08/22/2007)	8,374,579 (02/12/2013)	ISSUED
10.	System And Method For Analyzing Wireless Communication Records And For Determining Optimal Wireless Communication Service Plans	US	09/758,816 (01/11/2001)	6,681,106 (01/20/2004)	ISSUED
11.	System And Method For Determining Optimal Wireless Communication Service Plans	US	09/758,818 (01/11/2001)	6,574,465 (06/03/2003)	ISSUED
12.	System And Method For Determining Optimal Wireless Communication Service Plans Based On Spectrum Licenses	US	09/760,315 (01/11/2001)	6,813,488 (11/02/2004)	ISSUED
13.	System And Method For Determining Optimal Wireless Communication Service Plans Based On Historical Projection Analysis	US	09/758,824 (01/11/2001)	7,072,639 (07/04/2006)	ISSUED
14.	Pooling Groups Of Wireless Communication Users	US	11/148,849 (06/08/2005)	7,664,484 (02/16/2010)	ISSUED
15.	Providing A Rebate To A	US	11/706,782	7,761,083	ISSUED

Schedule I-2

127133881

PATENT
REEL: 042734 FRAME: 0564

	Title	Country	Application No./ Filing Date	Patent No./ Reg. Date	Status
	User Of A Telecommunication Plan		(02/14/2007)	(07/20/2010)	
16.	Provisioning A User Device For Multiple Services	US	11/741,433 (04/27/2007)	7,844,263 (11/30/2010)	ISSUED
17.	Hybrid Liability Model	US	13/856,986 (04/04/2013)	9,473,922 (10/18/2016)	ISSUED
18.	Hybrid Liability Model	US	15/270,055 (09/20/2016)	N/A	PENDING
19.	System And Method For Managing A Mobile Device	US	13/560,383 (07/27/2012)	8,412,154 (04/02/2013)	ISSUED
20.	System And Method For Managing A Mobile Device	US	13/742,157 (01/15/2013)	8,626,119 (01/07/2014)	ISSUED
21.	System And Method For Managing A Mobile Device	US	14/146,330 (01/02/2014)	8,923,810 (12/30/2014)	ISSUED
22.	System And Method For Managing A Mobile Device	US	14/549,049 (11/20/2014)	9,344,552 (05/17/2016)	ISSUED
23.	Customer-Oriented Telecommunications Data Aggregation And Analysis Method And Object Oriented System	US	10/035,844 (01/04/2002)	7,136,467 (11/14/2006)	ISSUED
24.	System And Method For Communications Routing	US	14/181,084 (02/14/2014)	9,325,718 (04/26/2016)	ISSUED
25.	Communications Routing And Contact Updates	US	14/523,518 (10/24/2014)	9,531,652 (12/27/2016)	ISSUED
26.	Cost Allocation For Derived Data Usage	US	14/263,756 (04/28/2014)	9,191,523 (11/17/2015)	ISSUED
27.	Cost Allocation For Derived Data Usage	US	14/886,572 (10/19/2015)	9,584,672 (02/28/2017)	ISSUED
28.	Cost Allocation For Derived Data Usage	US	15/443,728 (02/27/2017)	N/A	PENDING
29.	Security Application For Data Security Formatting, Tagging And Control	US	14/864,420 (09/24/2015)	N/A	PENDING
30.	Data Usage Analysis And Reporting	US	14/263,772 (04/28/2014)	N/A	PENDING
31.	Host Optimization For Network Accessible Software	US	14/560,201 (12/04/2014)	N/A	PENDING
32.	Real-Time Usage Detection Of Software	US	14/550,434 (11/21/2014)	N/A	PENDING

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127133881

PATENT
REEL: 042734 FRAME: 0565

	Title	Country	Application No./ Filing Date	Patent No./ Reg. Date	Status
	Applications				
33.	Cloud Optimizer	US	15/130,496 (04/15/2016)	N/A	PENDING
34.	System And Method For Capturing Real Time Telecommunications Usage Data From Mobile Devices And Comparing That Data To Life Cycle Telecommunications Expense Management (Tem) Data	US	13/192,904 (07/28/2011)	8,588,736 (11/19/2013)	ISSUED
35.	Security Application For Data Security Formatting, Tagging A	US	PCT/US2016/05 2850 (09/21/2016)	N/A	PENDING