

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM440011

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
MORGAN STANLEY SENIOR FUNDING, INC.		08/08/2017	Corporation: DELAWARE
RECEIVING PARTY DATA			
Name:	NEUSTAR, INC.		
Street Address:	21575 RIDGETOP CIRCLE		
City:	STERLING		
State/Country:	VIRGINIA		
Postal Code:	20166		
Entity Type:	Corporation: DELAWARE		
Name:	NEUSTAR IP INTELLIGENCE, INC.		
Street Address:	21575 RIDGETOP CIRCLE		
City:	STERLING		
State/Country:	VIRGINIA		
Postal Code:	20166		
Entity Type:	Corporation: DELAWARE		
Name:	ULTRADNS CORPORATION		
Street Address:	21575 RIDGETOP CIRCLE		
City:	STERLING		
State/Country:	VIRGINIA		
Postal Code:	20166		
Entity Type:	Corporation: DELAWARE		
Name:	NEUSTAR INFORMATION SERVICES, INC.		
Street Address:	21575 RIDGETOP CIRCLE		
City:	STERLING		
State/Country:	VIRGINIA		
Postal Code:	20166		
Entity Type:	Corporation: DELAWARE		
Name:	NEUSTAR DATA SERVICES, INC.		
Street Address:	21575 RIDGETOP CIRCLE		
City:	STERLING		

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State/Country:	VIRGINIA
Postal Code:	20166
Entity Type:	Corporation: DELAWARE
Name:	AGGREGATE KNOWLEDGE, INC.
Street Address:	21575 RIDGETOP CIRCLE
City:	STERLING
State/Country:	VIRGINIA
Postal Code:	20166
Entity Type:	Corporation: DELAWARE
Name:	MARKETSHARE ACQUISITION CORPORATION
Street Address:	21575 RIDGETOP CIRCLE
City:	STERLING
State/Country:	VIRGINIA
Postal Code:	20166
Entity Type:	Corporation: DELAWARE
Name:	MARKETSHARE HOLDINGS, INC.
Street Address:	21575 RIDGETOP CIRCLE
City:	STERLING
State/Country:	VIRGINIA
Postal Code:	20166
Entity Type:	Corporation: DELAWARE
Name:	MARKETSHARE PARTNERS, LLC
Street Address:	21575 RIDGETOP CIRCLE
City:	STERLING
State/Country:	VIRGINIA
Postal Code:	20166
Entity Type:	Limited Liability Company: DELAWARE

PROPERTY NUMBERS Total: 83

Property Type	Number	Word Mark
Registration Number:	3438033	ON-DEMAND LEAD VERIFICATION
Registration Number:	3446582	TARGUSINFO ON-DEMAND DATA
Registration Number:	2659443	TARGUSINFO
Registration Number:	3541072	ITACT
Registration Number:	3570463	FIRSTPASS ADVISOR
Registration Number:	3578176	ON-DEMAND IDENTIFICATION
Registration Number:	3578177	ON-DEMAND VERIFICATION
Registration Number:	3547605	LOCATIONID
Registration Number:	3534833	TELEPASS

TRADEMARK

REEL: 006134 FRAME: 0352

Property Type	Number	Word Mark
Registration Number:	3547615	CUSTOMERCOMPLETE
Registration Number:	3547616	CALLERCOMPLETE
Registration Number:	3547617	SHOPPERCOMPLETE
Registration Number:	3547618	SECONDAPPROACH
Registration Number:	3547619	CALLERINSIGHT
Registration Number:	3547679	ELEMENTONE
Registration Number:	3566144	LEADADVISOR
Registration Number:	3636191	ELEMENTONE
Registration Number:	3918472	IPAS
Registration Number:	3769527	ADADVISOR
Registration Number:	3718099	ON-DEMAND INSIGHT
Registration Number:	3888229	ON-DEMAND INFORMATION
Registration Number:	3809169	BUSINESS REACH
Registration Number:	3760585	BATCHCOMPLETE
Registration Number:	3996115	INFOZONE
Serial Number:	85063404	SEEWHO
Serial Number:	85380427	MANAGED
Serial Number:	85527093	IAN
Serial Number:	85527106	PAGEADVISOR
Serial Number:	85544831	CONSUMERREACH
Serial Number:	85708841	ACCOUNTLINK
Registration Number:	3331430	LOCALEZE
Registration Number:	2729224	AMACAI
Registration Number:	3203185	NEW MOVERS ON DEMAND
Registration Number:	3527090	NEW BUSINESSES ON DEMAND
Registration Number:	3830553	PURE APPEND PRO
Registration Number:	2699861	AMERICA'S INTERNET ADDRESS
Registration Number:	2921997	KIDS.US PLAY. LEARN. SURF.
Registration Number:	2918237	KIDS.US
Registration Number:	2912308	TRUSTED TO BRING NETWORKS TOGETHER
Registration Number:	2510765	NUMBERMANAGER
Registration Number:	2196447	ORDERPATH
Registration Number:	2525756	NEUSTAR
Registration Number:	3035697	NEUSTAR
Registration Number:	3773538	NEUSTAR
Registration Number:	3252515	SIP-IX
Registration Number:	3741210	NEUSTAR
Registration Number:	3559065	NEUSTAR

Property Type	Number	Word Mark
Registration Number:	3768328	PORT DR
Registration Number:	3775468	PORT DR
Registration Number:	3343135	NEUSTAR
Registration Number:	2019140	METAINFO
Registration Number:	2389344	META IP
Registration Number:	3711287	CACHE DEFENDER
Registration Number:	3789020	ECOSYSTEM MANAGEMENT
Registration Number:	3795217	.US
Registration Number:	3872035	NEUSTAR
Registration Number:	4036487	.BIZ
Registration Number:	4102975	BETTER NAME. BETTER RESULTS.
Registration Number:	3179222	WEBMETRICS
Serial Number:	85310228	NEUSHIELD
Serial Number:	85310215	NEUENTRY
Registration Number:	4219628	NEUENTRY
Registration Number:	3730052	DNS SHIELD
Registration Number:	2701805	ULTRA
Registration Number:	2628926	ULTRADNS
Registration Number:	2459099	ULTRADNS
Registration Number:	3573697	DNS ADVANTAGE
Registration Number:	3830681	DNS ADVANTAGE
Registration Number:	2746004	.BIZ
Registration Number:	2735926	NOTHING PERSONAL. JUST BUSINESS.
Serial Number:	85478079	TECHNOLOGY BEHIND THE TECHNOLOGY
Serial Number:	85723752	PROMOTE AND PROTECT
Serial Number:	85684464	COST TO CASH
Serial Number:	85478101	REAL INTELLIGENCE. BETTER DECISIONS.
Registration Number:	4718797	MARKETSHARE
Registration Number:	4718798	MARKETSHARE
Registration Number:	2790809	MARKETINGNPV
Registration Number:	2895012	+ - \$
Serial Number:	86520006	MARKETSHARE DECISIONCLOUD
Serial Number:	86519992	MARKETSHARE DECISIONCLOUD
Registration Number:	3548432	AGGREGATE KNOWLEDGE
Registration Number:	3633321	AGKNOW
Registration Number:	3544570	PIQUE

CORRESPONDENCE DATA

**TRADEMARK
REEL: 006134 FRAME: 0354**

Fax Number: 6508385109

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: 650-838-3743

Email: jlik@shearman.com

Correspondent Name: MARIE-ALEXIS VALENTE

Address Line 1: 599 Lexington Avenue

Address Line 2: Shearman & Sterling LLP

Address Line 4: New York, NEW YORK 10022

ATTORNEY DOCKET NUMBER: 37051/109

NAME OF SUBMITTER: MARIE-ALEXIS VALENTE

SIGNATURE: /MARIE-ALEXIS VALENTE/

DATE SIGNED: 08/21/2017

Total Attachments: 36

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INTELLECTUAL PROPERTY SECURITY AGREEMENT RELEASE

This INTELLECTUAL PROPERTY SECURITY AGREEMENT RELEASE (this “**Release**”), dated August 8, 2017, is made by Morgan Stanley Senior Funding, Inc., as collateral agent (in such capacity, the “**Collateral Agent**”) for the Secured Parties in favor of the parties listed as grantors to the IP Security Agreements (as defined below) (the “**Grantors**”). All capitalized terms used herein and not otherwise defined shall have the meaning assigned to such terms in the Credit Agreement (as defined below), or if not defined therein, as defined in the IP Security Agreements.

WHEREAS, Neustar, Inc., a Delaware corporation, has entered into a Credit Agreement, dated as of January 22, 2013 (as amended, amended and restated, supplemented or otherwise modified from time to time, the “**Credit Agreement**”), with the Collateral Agent and the Lender Parties party thereto;

WHEREAS, pursuant to the Credit Agreement, the Grantors and certain other Persons have executed and delivered that certain Security Agreement, dated as of January 22, 2013, made by the Grantors and such other Persons to the Collateral Agent (as amended, amended and restated, supplemented or otherwise modified from time to time, the “**Security Agreement**”);

WHEREAS, under the terms of the Security Agreement, the Grantors granted to the Collateral Agent for the ratable benefit of the Secured Parties a security interest in and to certain intellectual property of the Grantors and executed and delivered the following in favor of the Collateral Agent (each as amended, amended and restated, supplemented or otherwise modified from time to time): (i) that certain Intellectual Property Security Agreement, dated as of January 22, 2013 (the “**IP Security Agreement**”); (ii) that certain Intellectual Property Security Agreement Supplement, dated as of December 13, 2013 (the “**IP Security Agreement Supplement**”); and (iii) that certain Intellectual Property Security Agreement Supplement, dated as of January 22, 2016 (the “**Second IP Security Agreement Supplement**”) ((i)-(iii), together, the “**IP Security Agreements**”);

WHEREAS,

(i) the IP Security Agreement was recorded with the United States Patent and Trademark Office on February 13, 2013 at Reel 029809 and Frame 0260 with respect to patents and at Reel 4960 and Frame 0544 with respect to trademarks and with the United States Copyright Office at Volume 3627 and Document 075;

(ii) the IP Security Agreement Supplement was recorded with the United States Patent and Trademark Office on January 8, 2014 at Reel 031947 and Frame 0001 with respect to patents and at Reel 5189 and Frame 0529 with respect to trademarks; and

(iii) the Second IP Security Agreement Supplement was recorded with the United States Patent and Trademark Office on January 27, 2016 at Reel 037603 and Frame 0032 with respect to patents and at Reel 5716 and Frame 0260 with respect to trademarks.

WHEREAS, in accordance with the provisions of the Credit Agreement and the IP Security Agreements, the indebtedness under the Credit Agreement has been paid in full, and the Collateral Agent now agrees to release its security interest in and to the **Collateral** (as defined in the IP Security Agreement and listed on Schedule A hereto), the **Supplemental Collateral I** (defined as Additional Collateral in the IP Security Agreement Supplement and listed on Schedule B hereto) and the **Supplemental Collateral II** (defined as Additional Collateral in the Second IP Security Agreement Supplement and listed on Schedule C hereto) (collectively, the “*IP Collateral*”).

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

SECTION 1. Release of Grant of Security. The Collateral Agent hereby releases, without any recourse, representation, warranty or other assurance of any kind, its right, title and interest in and to the IP Collateral, including in and to the IP Collateral listed on Schedules A, B and C hereto, granted to it pursuant to the IP Security Agreements.

SECTION 2. Recordation. The Collateral Agent authorizes and requests, at the Grantors’ sole cost and expense, that the Commissioner for Patents and the Commissioner for Trademarks of the United States Patent and Trademark Office and the Register of Copyrights of the United States Copyright Office and any other applicable government officer record this Release.

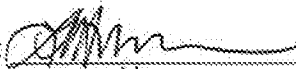
SECTION 3. Governing Law. This Release shall be governed by, and construed in accordance with, the laws of the State of New York.

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IN WITNESS WHEREOF, the Collateral Agent has caused this Release to be duly executed and delivered by its officer thereunto duly authorized as of the date first above written.

**MORGAN STANLEY
SENIOR FUNDING, INC.**

as Collateral Agent

By: 
Name: Lisa Hansen
Title: IR

Schedule A

Collateral

I. Patents

Assignee	Country	Serial No. Publication No. Patent No.	Filing Date	Title	Issue Date
NeuStar, Inc.	CA	CA 2,276,131	12/16/97	SYSTEMS AND METHODS FOR MANAGING AND PROVISIONING NETWORK ELEMENTS ASSOCIATED WITH NUMBER PORTABILITY	05/09/06
NeuStar, Inc.	CA	CA 2,276,019	12/22/97	SYSTEMS AND METHODS FOR PROVIDING TELECOMMUNICATIONS SERVICES	05/02/06
NeuStar, Inc. (Ultra DNS, Inc.)	Germany, United Kingdom, and Italy	EP 00912123.7 EPI157524A2 EPI157524	03/02/00	SCALABLE AND EFFICIENT DOMAIN NAME RESOLUTION	12/19/07
NeuStar, Inc.	US	08/907,323 6,122,362	08/06/97	SYSTEMS AND METHOD FOR PROVIDING NETWORK ELEMENT MANAGEMENT FUNCTIONALITY FOR MANAGING AND PROVISIONING NETWORK ELEMENTS ASSOCIATED WITH NUMBER PORTABILITY	9/19/00
NeuStar, Inc.	US	08/906,751 6,169,793	08/06/97	SYSTEMS AND METHODS FOR PROVIDING ORDER AND SERVICE MEDIATION FOR TELECOMMUNICATIONS SYSTEMS	01/02/01
NeuStar IP Intelligence, Inc.	US	09/825,675 6,684,250	04/03/01	METHOD AND APPARATUS FOR ESTIMATING A GEOGRAPHIC LOCATION OF A NETWORKED ENTITY	01/27/04
NeuStar, Inc.	US	10/665,076 US 2005/0060610 A1 US 7,337,361	09/16/03	TEST HARNESS FOR ENTERPRISE APPLICATION INTEGRATION ENVIRONMENT	02/26/08
NeuStar IP Intelligence, Inc.	US	10/685,991 7,072,963	10/14/03	METHOD AND SYSTEM TO MODIFY GEOLOCATION ACTIVITIES BASED ON LOGGED QUERY INFORMATION	07/04/06
NeuStar IP Intelligence, Inc.	US	10/686,102 7,472,172	10/14/03	METHOD AND SYSTEM TO INITIATE GEOLOCATION ACTIVITIES ON DEMAND AND RESPONSIVE TO RECEIPT OF A QUERY	12/30/08
NeuStar IP Intelligence, Inc.	US	10/686,135 7,809,857	10/14/03	METHOD AND SYSTEM TO COLLECT GEOGRAPHIC LOCATION INFORMATION FOR A NETWORK ADDRESS UTILIZING GEOGRAPHICALLY DISPERSED DATA COLLECTION AGENTS	10/05/10
NeuStar IP Intelligence, Inc.	US	11/073,149 7,685,279	03/04/05	GEO-LOCATION AND GEO-COMPLIANCE UTILIZING A CLIENT AGENT	03/23/10
NeuStar, Inc.	US	7,546,368 11/142,890 2006-0277001	06/01/05	SYSTEMS AND METHODS FOR ISOLATING LOCAL PERFORMANCE VARIATION IN WEBSITE MONITORING	06/9/09
NeuStar, Inc.	US	7,770,068 11/142,889 2006-0276697	06/01/05	SYSTEMS AND METHODS FOR WEBSITE MONITORING AND LOAD TESTING VIA SIMULATION	08/03/10
NeuStar, Inc.	US	8,005,890 11/537,740 2008-0082645	10/02/06	SYSTEM AND METHOD FOR OBTAINING AND EXECUTING INSTRUCTIONS FROM A PRIVATE NETWORK	08/23/11
NeuStar IP Intelligence, Inc.	US	11/948,771 8,055,792	11/30/07	METHOD AND SYSTEM FOR EVALUATING AND SELECTING TRACEROUTES TO BE USED IN DETERMINING THE GEOGRAPHIC LOCATION OF A NETWORK BLOCK	11/08/11
NeuStar, Inc.	US	7,925,747 12/253,652 2099-0106390	10/17/08	SYSTEM AND METHOD FOR SHARING WEB PERFORMANCE MONITORING DATA	04/12/11

Assignee	Country	Serial No. Publication No. Patent No.	Filing Date	Title	Issue Date
NeuStar, Inc.	US	7,814,202 12/479,152 2009-0240805	06/05/09	SYSTEMS AND METHODS FOR ISOLATING LOCAL PERFORMANCE VARIATION IN WEBSITE MONITORING	10/12/10
NeuStar IP Intelligence, Inc.	US	11/855,745 8,204,982	09/14/07	SYSTEM AND METHOD OF MIDDLEBOX DETECTION AND CHARACTERIZATION	
NeuStar, Inc.	US	12/509,622 8,126,426	07/27/09	SYSTEM AND METHOD FOR ASSESSING MOBILE APPLICATION VALUE	
NeuStar IP Intelligence, Inc.	US	12/166,622 8,239,510	7/2/2008	METHOD AND SYSTEM FOR LOCATING GEOGRAPHICAL LOCATIONS OF ONLINE USERS	

Patent Applications

Assignee	Country	Serial No. Publication No.	Filing Date	Title
NeuStar IP Intelligence, Inc.	US	10/685,692	10/14/03	METHOD AND SYSTEM TO ASSOCIATE GEOGRAPHIC LOCATION INFORMATION WITH A NETWORK ADDRESS USING A COMBINATION OF AUTOMATED AND MANUAL PROCESSES
NeuStar, Inc.	US	11/136,086 2005-0262240	05/24/05	SYSTEM AND METHOD FOR CORRELATION AND ANALYSIS OF WEBSITE PERFORMANCE, TRAFFIC AND HEALTH DATA
NeuStar IP Intelligence, Inc.	US	11/935,598 2009-0119394	11/06/07	METHOD AND SYSTEM FOR DETERMINING THE GEOGRAPHIC LOCATION OF A NETWORK BLOCK
NeuStar, Inc.	US	12/163,659 2009-0006614	06/27/08	MONITORING WEB SERVICE TRANSACTIONS
NeuStar, Inc.	US	12/237,144 2010-0077462	09/24/08	SECURE DOMAIN NAME SYSTEM
NeuStar, Inc.	US	12/705,268 2012-0009902	2/12/10	METHOD FOR DISTRIBUTING CONTACT INFORMATION BETWEEN APPLICATIONS
NeuStar, Inc.	US	12/902,619 2011-0029662	10/12/2010	ISOLATING LOCAL PERFORMANCE VARIATION IN WEBSITE MONITORING
NeuStar IP Intelligence, Inc.	US	12/908,287 2012-0102219	10/20/10	SYSTEM AND METHOD FOR MANAGING AN INTERNET DOMAIN BASED ON THE GEOGRAPHIC LOCATION OF AN ACCESSING USER
NeuStar, Inc.	US	13/085,323 2011-0191471	04/12/2011	SYSTEM AND METHOD FOR SHARING WEB PERFORMANCE MONITORING DATA
NeuStar IP Intelligence, Inc.	US	13/173,592 2013-0007256	06/30/11	SYSTEM AND METHOD FOR PREDICTING THE GEOGRAPHIC LOCATION OF AN INTERNET PROTOCOL ADDRESS
NeuStar IP Intelligence, Inc.	US	13/192,686	07/28/11	SYSTEM AND METHOD FOR IMPLEMENTING A LEARNING MODEL FOR PREDICTING THE GEOGRAPHIC LOCATION OF AN INTERNET PROTOCOL ADDRESS
NeuStar, Inc.	US	13/215,939 2012-0215827	08/23/2011	SYSTEM AND METHOD FOR OBTAINING AND EXECUTING INSTRUCTIONS FROM A PRIVATE NETWORK
NeuStar, Inc.	US	61/606,956	3/5/2012	METHOD AND APPARATUS FOR DETECTING NETWORK COMPROMISE
NeuStar, Inc.	US	13/221,507	8/30/2011	SYSTEM AND METHOD FOR DELIVERING SHORT MESSAGE SERVICE TEXT TO CALL CENTERS
NeuStar, Inc.	US	13/297,531	11/16/2011	METHOD AND APPARATUS FOR

Assignee	Country	Serial No. Publication No.	Filing Date	Title
NeuStar, Inc.	US	13/349,987	01/13/2012	FACILITATING ANSWERING A QUERY ON A DATABASE METHOD AND APPARATUS FOR IMPLEMENTING A LEARNING MODEL FOR FACILITATING ANSWERING A QUERY ON A DATABASE
NeuStar, Inc.	US	13/365,735	02/03/2012	METHOD AND APPARATUS FOR FACILITATING FINDING A NEAREST NEIGHBOR IN A DATABASE
NeuStar, Inc.	US	13/309,860	12/02/2011	SYSTEM AND METHOD OF MIDDLEBOX DETECTION AND CHARACTERIZATION

National Stage

Assignee	Country	Serial No. Publication No.	Filing Date	Title
NeuStar, Inc.	Canada	2,691,659	06/27/08	MONITORING WEB SERVICE TRANSACTIONS
NeuStar, Inc.	EPO	08772190.8	06/27/08	MONITORING WEB SERVICE TRANSACTIONS
NeuStar, Inc.	EPO	08839153.7	10/17/08	SYSTEM AND METHOD FOR SHARING WEB PERFORMANCE MONITORING DATA
NeuStar, Inc.	South Korea	10-2010-7001961	06/27/10	MONITORING WEB SERVICE TRANSACTIONS

Issued Patents and Patent Applications of NeuStar Information Services, Inc.

<u>Grantor</u>	<u>Title</u>	<u>Country</u>	<u>Patent No.</u>	<u>Application No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
NeuStar Information Services, Inc.	REAL-TIME PROCESS FOR DEFINING, PROCESSING AND DELIVERING A HIGHLY CUSTOMIZED CONTACT LIST OVER A NETWORK	US	7,243,075	09/678,752	10/3 /2000	7 /10/2007
NeuStar Information Services, Inc.	SYSTEM AND METHOD FOR LINKING INFORMATION IN A GLOBAL COMPUTER NETWORK	US	6,748,426	09/596,024	6 /15/2000	6 /8 /2004

<u>Grantor</u>	<u>Title</u>	<u>Country</u>	<u>Patent No.</u>	<u>Application No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
NeuStar Information Services, Inc.	SYSTEM FOR LINKING INFORMATION IN A GLOBAL COMPUTER NETWORK	US	7,167,907	10/828,638	4 /21/2004	1 /23/2007
NeuStar Information Services, Inc.	ONE NUMBER INTELLIGENT CALL PROCESSING SYSTEM	US	6,058,179	09/211,475	12/14/1998	5 /2 /2000
NeuStar Information Services, Inc.	AUTOMATIC ROUTING SYSTEM FOR TELEPHONIC SERVICES	US	5,506,897	08/365,325	12/28/1994	4 /9 /1996
NeuStar Information Services, Inc.	REAL-TIME PROCESS FOR DEFINING, PROCESSING AND DELIVERING A HIGHLY CUSTOMIZED CONTACT LIST OVER A NETWORK	US	8,064,586	11/673,485	2 /9 /2007	11/22/11
NeuStar Information Services, Inc.	ONE NUMBER INTELLIGENT CALL PROCESSING SYSTEM	US	5,901,214	08/748,192	11/12/1996	5 /4 /1999
NeuStar Information Services, Inc.	AUTOMATED CONCIERGE SYSTEM AND METHOD	US	8,160,614	11/462,167	8 /3 /2006	4/17/12
NeuStar Information Services, Inc.	METHOD OF QUERYING FOR DEVICE LOCATION IN A HETEROGENEOUS NETWORK	US		11/281,952	11/15/2005	
NeuStar Information Services, Inc.	SPATIALLY INDEXED GRAMMAR AND METHODS OF USE	US	8,060,367	11/768,433	6 /26/2007	11/15/11

<u>Grantor</u>	<u>Title</u>	<u>Country</u>	<u>Patent No.</u>	<u>Application No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
NeuStar Information Services, Inc.	SYSTEM AND METHOD FOR DEVELOPING SMALL GEOGRAPHIC AREA POPULATION, HOUSEHOLD, AND DEMOGRAPHIC COUNT ESTIMATES AND PROJECTIONS USING A MASTER ADDRESS FILE	US		12/208,715	9 /11/2008	
NeuStar Information Services, Inc.	AUTOMATED MOBILE INTELLIGENT CALL PROCESSING SYSTEM	US		12/198,573	8 /26/2008	
NeuStar Information Services, Inc.	AUTOMATED MOBILE INTELLIGENT COMMUNICATION PROCESSING SYSTEM	US		12/823,899	6 /25/2010	
NeuStar Information Services, Inc.	ON DEMAND MULTI-LOCATION LARGE DATABASE SYNCHRONIZATION SYSTEM	US		12/975,012	12/21/2010	
NeuStar Information Services, Inc.	ONE NUMBER INTELLIGENT CALL PROCESSING SYSTEM	US	6,185,290 (this case is under consideration to be dropped)	09/477,181	1 /4 /2000	2 /6 /2001
NeuStar Information Services, Inc.	ONE NUMBER, INTELLIGENT CALL PROCESSING SYSTEM	US	8,085,924	11/613,984	12/20/2006	12/27/11
NeuStar Information Services, Inc.	ONE NUMBER, INTELLIGENT CALL PROCESSING SYSTEM	US	8,180,041	12/274,154	11/19/2008	5/15/12

<u>Grantor</u>	<u>Title</u>	<u>Country</u>	<u>Patent No.</u>	<u>Application No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
NeuStar Information Services, Inc.	AUTOMATIC ROUTING AND INFORMATION SYSTEM FOR TELEPHONIC SERVICES	US	6,608,892	10/066,242	2 /1 /2002	8 /19/2003
NeuStar Information Services, Inc.	AUTOMATIC ROUTING AND INFORMATION SYSTEM FOR TELEPHONIC SERVICES	US	7,203,300	11/227,589	9 /15/2005	4 /10/2007
NeuStar Information Services, Inc.	AUTOMATIC ROUTING AND INFORMATION SYSTEM FOR TELEPHONIC SERVICES	US		11/690,289	3 /23/2007	
NeuStar Information Services, Inc.	AUTOMATIC ROUTING AND INFORMATION SYSTEM FOR TELEPHONIC SERVICES	US	7,136,474	10/454,396	6 /3 /2003	11/14/2006
NeuStar Information Services, Inc.	AUTOMATIC ROUTING AND INFORMATION SYSTEM FOR TELEPHONIC SERVICES	US	5,956,397	09/100,052	6 /19/1998	9 /21/1999
NeuStar Information Services, Inc.	AUTOMATIC ROUTING AND INFORMATION SYSTEM FOR TELEPHONIC SERVICES	US	5,910,982	09/100,305	6 /19/1998	6 /8 /1999
NeuStar Information Services, Inc.	AUTOMATIC ROUTING SYSTEM FOR TELEPHONIC SERVICES	US	5,907,608	09/099,821	6 /19/1998	5 /25/1999
NeuStar Information Services, Inc.	AUTOMATIC ROUTING AND INFORMATION SYSTEM FOR TELEPHONIC SERVICES	US	6,091,810	09/211,137	12/14/1998	7 /18/2000
NeuStar Information Services, Inc.	AUTOMATIC ROUTING AND INFORMATION SYSTEM FOR TELEPHONIC SERVICES	US	6,385,312	09/100,567	6 /19/1998	5 /7 /2002

<u>Grantor</u>	<u>Title</u>	<u>Country</u>	<u>Patent No.</u>	<u>Application No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
NeuStar Information Services, Inc.	AUTOMATIC ROUTING SYSTEM FOR TELEPHONIC SERVICES	US	6,570,975	10/053,290	1 /18/2002	5 /27/2003
NeuStar Information Services, Inc.	AUTOMATIC INFORMATION AND ROUTING SYSTEM FOR TELEPHONIC SERVICES	US	5,848,131	08/598,392	2 /8 /1996	12/8 /1998
NeuStar Information Services, Inc.	AUTOMATIC ROUTING AND INFORMATION SYSTEM FOR TELEPHONIC SERVICES	US	5,982,868	08/659,318	6 /6 /1996	11/9 /1999
NeuStar Information Services, Inc.	ONE NUMBER, INTELLIGENT CALL PROCESSING SYSTEM	US	6,381,324	09/690,661	10/17/2000	4 /30/2002
NeuStar Information Services, Inc.	ONE NUMBER INTELLIGENT CALL PROCESSING SYSTEM	US	6,661,884	10/082,669	2 /22/2002	12/9 /2003
NeuStar Information Services, Inc.	REAL-TIME PROCESS FOR DEFINING, PROCESSING AND DELIVERING A HIGHLY CUSTOMIZED CONTACT LIST OVER A NETWORK	US		13/302,861	11/22/11	
NeuStar Information Services, Inc.	ONE NUMBER, INTELLIGENT CALL PROCESSING SYSTEM	US		13/336,527	12/23/11	
NeuStar Information Services, Inc.	SYSTEMS AND METHODS FOR REGISTRATION AND USE OF A PAYMENT CARD	US		61/603,038	2/24/12	

<u>Grantor</u>	<u>Title</u>	<u>Country</u>	<u>Patent No.</u>	<u>Application No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
NeuStar Information Services, Inc.	ONE NUMBER, INTELLIGENT CALL PROCESSING SYSTEM	US	7,167,553	10/732,147	12/9 /2003	1 /23/2007

II. Trademarks

NEUSTAR INFORMATION SERVICES, INC.

Grantor	Domain Name/Mark	Country	Mark	Reg. No.	Application No.	Filing Date	Issue Date
NeuStar Information Services, Inc.		U.S.	ON-DEMAND LEAD VERIFICATION	3,438,033	78/827,865	3/2/06	5/27/08
NeuStar Information Services, Inc.		U.S.	TARGUSINFO ON DEMAND DATA	3,446,582	78/680,786	7/28/05	6/10/08
NeuStar Information Services, Inc.		U.S.	TARGUSINFO	2,659,443	78/050,329	2/26/01	12/10/02
NeuStar Information Services, Inc.		U.S.	ITACT	3541072	77/201,219	6/8/07	12/2/08
NeuStar Information Services, Inc.		U.S.	FIRSTPASS ADVISOR	3,570,463	77/201,262	6/8/07	2/3/09
NeuStar Information Services, Inc.		U.S.	ON-DEMAND IDENTIFICATION	3,578,176	77/203,812	6/12/07	2/17/09
NeuStar Information Services, Inc.		U.S.	ON-DEMAND VERIFICATION	3,578,177	77/203,824	6/12/07	2/17/09
NeuStar Information Services, Inc.		U.S.	LOCATIONID	3,547,605	77/203,887	6/12/07	12/16/08
NeuStar Information Services, Inc.		U.S.	TELEPASS	3,534,833	77/203,878	6/12/07	11/18/08
NeuStar Information Services, Inc.		U.S.	CUSTOMERCOMPLETE	3,547,615	77/210,823	6/20/07	12/16/08
NeuStar Information Services, Inc.		U.S.	CALLERCOMPLETE	3,547,616	77/210,850	6/20/07	12/16/08
NeuStar Information		U.S.	SHOPPERCOMPLETE	3,547,617	77/210,865	6/20/07	12/16/08

Grantor	Domain Name/Mark	Country	Mark	Reg. No.	Application No.	Filing Date	Issue Date
Services, Inc.							
NeuStar Information Services, Inc.		U.S.	SECONDDAPPROACH	3,547,618	77/210,915	6/20/07	12/16/08
NeuStar Information Services, Inc.		U.S.	CALLERINSIGHT	3,547,619	77/210,932	6/20/07	12/16/08
NeuStar Information Services, Inc.		U.S.	ELEMENTONE	3,547,679	77/241,105	7/27/07	12/16/08
NeuStar Information Services, Inc.		U.S.	LEADADVISOR	3,566,144	77/377,855	1/22/08	1/20/09
NeuStar Information Services, Inc.		U.S.	ELEMENTONE (Stylized)	3,636,191	77/377,928	1/22/08	6/9/09
NeuStar Information Services, Inc.		U.S.	IPAS	3,918,472	77/719,714	4/22/09	2/15/11
NeuStar Information Services, Inc.		U.S.	ADADVISOR	3,769,527	77/719,969	4/22/09	3/30/10
NeuStar Information Services, Inc.		U.S.	ON-DEMAND INSIGHT	3,718,099	77/719,771	4/22/09	12/1/09
NeuStar Information Services, Inc.		U.S.	ON-DEMAND INFORMATION	3,888,229	77/720,006	4/22/09	12/7/10
NeuStar Information Services, Inc.		U.S.	BUSINESS REACH	3,809,169	77/719,740	4/22/09	6/29/10
NeuStar Information Services, Inc.		U.S.	BATCHCOMPLETE	3,760,585	77/786,989	7/22/09	3/16/10
NeuStar Information Services, Inc.		U.S.	INFOZONE	3,996,115	85/034,300	5/10/10	7/19/11
NeuStar Information Services,		U.S.	SEEWHO		85/063,404	6/15/10	

Grantor	Domain Name/Mark	Country	Mark	Reg. No.	Application No.	Filing Date	Issue Date
Inc.							
NeuStar Information Services, Inc.		U.S.	MANAGED and Design		85/380,427	7/25/11	
NeuStar Information Services, Inc.		U.S.	IAN		85/527,093	1/27/12	
NeuStar Information Services, Inc.		U.S.	PAGEADVISOR		85/527,106	1/27/2012	
NeuStar Information Services, Inc.		U.S.	CONSUMERREACH		85/544,831	2/16/2012	
NeuStar Information Services, Inc.		U.S.	ACCOUNTLINK		85/708,841	8/21/2012	

NEUSTAR DATA SERVICES, INC.

Grantor	Country	Mark	Reg. No.	Application No.	Filing Date	Issue Date
NeuStar Data Services, Inc.	U.S.	LOCALEZE	3,331,430	78/702,741	8/29/07	11/6/07
NeuStar Data Services, Inc.	U.S.	AMACAI	2,729,224	78/139,562	6/27/02	6/24/03
NeuStar Data Services, Inc.	U.S.	NEW MOVERS ON DEMAND	3,203,185	78/885,867	5/17/06	1/23/07
NeuStar Data Services, Inc.	U.S.	NEW BUSINESSES ON DEMAND	3,527,090	77/430,982	3/25/08	11/4/08
NeuStar Data Services, Inc.	U.S.	PURE APPEND PRO	3,830,553	77/786,418	7/21/09	8/10/10

MARK/TITLE	COUNTRY	APPLICANT/ OWNER	APP NO.	DATE FILED	REG NO.	REG. DATE	STATUS
NEUSTAR (Stylized)	Taiwan R.O.C.	Neustar, Inc.	101880099	18-Aug-09			Pending
AMERICA'S INTERNET ADDRESS	United States of America	Neustar, Inc.	76362682	25-Jan-02	2699861	25-Mar-03	Registered
KIDS. US PLAY. LEARN. SURF. & Design	United States of America	Neustar, Inc.	76483430	21-Jan-03	2921997	1-Feb-05	Registered
KIDS.US & Design	United States of America	Neustar, Inc.	76483431	21-Jan-03	2918237	11-Jan-05	Registered
TRUSTED TO BRING NETWORKS TOGETHER	United States of America	Neustar, Inc.	76535927	29-Jul-03	2912308	21-Dec-04	Registered
NUMBERMANAGER	Canada	Neustar, Inc.	848672	20-Jun-97	TMA530777	7-Aug-00	Registered
NUMBERMANAGER	United States of America	Neustar, Inc.	75217681	23-Dec-96	2510765	20-Nov-01	Registered
ORDERPATH	Canada	Neustar, Inc.	848670	20-Jun-97	TMA530912	9-Aug-00	Registered
ORDERPATH	United States of America	Neustar, Inc.	75217683	23-Dec-96	2196447	13-Oct-98	Registered
NEUSTAR	United States of America	Neustar, Inc.	75772929	11-Aug-99	2525756	1-Jan-02	Registered
NEUSTAR	European Union	Neustar, Inc.	1487578	28-Jan-00	1487578	7-May-01	Registered

MARK/TITLE	COUNTRY	APPLICANT/ OWNER	APP. NO.	DATE FILED	REG. NO.	REG. DATE	STATUS
NEUSTAR	Canada	Neustar, Inc.	1045611	7-Feb-00	579687	16-Apr-03	Registered
NEUSTAR	Norway	Neustar, Inc.	200000900	28-Jan-00	208576	18-May-01	Registered
NEUSTAR	Switzerland	Neustar, Inc.	13432000	8-Feb-00	494238	25-Feb-02	Registered
NEUSTAR	United States of America	Neustar, Inc.	78537551	23-Dec-04	3035697	27-Dec-05	Registered
NEUSTAR	United States of America	Neustar, Inc.	78603996	7-Apr-05	3773538	6-Apr-10	Registered
SIP-IX	United States of America	Neustar, Inc.	78750154	9-Nov-05	3252515	12-Jun-07	Registered
SIP-IX	European Union	Neustar, Inc.	4709994	10-Nov-05	4709994	23-Oct-06	Registered
NEUSTAR	United States of America	Neustar, Inc.	78750147	9-Nov-05	3741210	19-Jan-10	Registered
NEUSTAR	European Union	Neustar, Inc.	4710257	10-Nov-05	4710257	7-Mar-07	Registered
NEUSTAR	United States of America	Neustar, Inc.	78813075	13-Feb-06	3559065	6-Jan-09	Registered
PORT DR	United States of America	Neustar, Inc.	77492629	6-Jun-08	3768328	30-Mar-10	Registered
PORT DR	United States of America	Neustar, Inc.	77492640	6-Jun-08	3775468	13-Apr-10	Registered

MARK/TITLE	COUNTRY	APPLICANT/ OWNER	APP. NO	DATE FILED	REG. NO	REG. DATE	STATUS
NEUSTAR	United States of America	Neustar, Inc.	77123952	6-Mar-07	3343135	27-Nov-07	Registered
METAINFO	United States of America	NeuStar, Inc.	75021223	17-Nov-95	2019140	26-Nov-96	Registered
META IP	United States of America	Neustar, Inc.	75644810	22-Feb-99	2389344	26-Sep-00	Registered
NEUSTAR	Brazil	Neustar, Inc.	829753990	12-Jun-08	829753990	2-Aug-11	Registered
NEUSTAR	Brazil	Neustar, Inc.	829753958	12-Jun-08			Allowed
NEUSTAR	Brazil	Neustar, Inc.	829753974	12-Jun-08	829753974	2-Aug-11	Registered
NEUSTAR	Brazil	Neustar, Inc.	829753982	12-Jun-08	829753982	2-Aug-11	Registered
NEUSTAR	Brazil	Neustar, Inc.	829753966	12-Jun-08	829753966	3-Jan-12	Registered
CACHE DEFENDER	United States of America	Neustar, Inc.	77615869	17-Nov-08	3711287	17-Nov-09	Registered
ECOSYSTEM MANAGEMENT	United States of America	Neustar, Inc.	76696231	10-Mar-09	3789020	18-May-10	Registered
.US Logo	United States of America	Neustar, Inc.	77725592	29-Apr-09	3795217	25-May-10	Registered
NEUSTAR (Stylized)	United States of America	Neustar, Inc.	77796898	4-Aug-09	3872035	9-Nov-10	Registered

MARK/TITLE	COUNTRY	APPLICANT/ OWNER	APP. NO	DATE FILED	REG. NO	REG. DATE	STATUS
NEUSTAR (Stylized)	Brazil	Neustar, Inc.	830368175	17-Aug-09	830368175	3-Jul-12	Registered
NEUSTAR (Stylized)	Brazil	Neustar, Inc.	830368191	17-Aug-09	830368191	2-Oct-12	Registered
NEUSTAR (Stylized)	Brazil	Neustar, Inc.	830368205	17-Aug-09	830368205	3-Jul-12	Registered
NEUSTAR (Stylized)	Switzerland	Neustar, Inc.	595282009	31-Aug-09	607146	27-Oct-10	Registered
NEUSTAR (Stylized)	European Union	Neustar, Inc.	8491334	14-Aug-09	8491334	31-May-10	Registered
NEUSTAR (Stylized)	Israel	Neustar, Inc.	222798	16-Aug-09	222798	6-Dec-10	Registered
NEUSTAR (Stylized)	Singapore	Neustar, Inc.	T0909102Z	14-Aug-09	T0909102Z	14-Aug-09	Registered
NEUSTAR (Stylized)	China	Neustar, Inc.	8051842	4-Feb-10	8051842	7-Apr-11	Registered
NEUSTAR (Stylized)	China	Neustar, Inc.	8051843	4-Feb-10			Pending
NEUSTAR (Stylized)	China	Neustar, Inc.	8051844	4-Feb-10			Pending
NEUSTAR (Stylized)	Canada	Neustar, Inc.	1454080	2-Oct-09	798914	31-May-11	Registered
NEUSTAR (Stylized)	Israel	Neustar, Inc.	222784	16-Aug-09	222784	6-Dec-10	Registered
NEUSTAR (Stylized)	Israel	Neustar, Inc.	222795	16-Aug-09	222795	6-Dec-10	Registered

MARK/TITLE	COUNTRY	APPLICANT/ OWNER	APP. NO	DATE FILED	REG. NO	REG. DATE	STATUS
NEUSTAR (Stylized)	Singapore	Neustar, Inc.	T1004357B	9-Apr-10 09	T1004357B	9-Apr-10 10	Registered
.BIZ & Design	United States of America	Neustar, Inc.	85105483	11-Aug-10	4036487	4-Oct-11	Registered
BETTER NAME. BETTER RESULTS.	United States of America	Neustar, Inc.	85105490	11-Aug-10	4102975	21-Feb-12	Registered
WEBMETRICS	United States of America	Neustar, Inc.	78413657	5-May-04	3179222	5-Dec-06	Registered
NEUSHIELD	United States of America	Neustar, Inc.	85310228	2-May-11			Allowed
NEUSENTRY	United States of America	Neustar, Inc.	85310215	2-May-11			Allowed
NEUSENTRY	United States of America	Neustar, Inc.	85977465	2-May-11	4219628	2-Oct-12	Registered
DNS SHIELD	United States of America	UltraDNS Corporation	78721326	27-Sep-05	3730052	22-Dec-09	Registered
ULTRA & Design	United States of America	UltraDNS Corporation	76227222	19-Mar-01	2701805	1-Apr-03	Registered
ULTRADNS	United States of America	UltraDNS Corporation	76037871	1-May-00	2628926	1-Oct-02	Registered
ULTRADNS	United States of America	UltraDNS Corporation	75737872	25-Jun-99	2459099	12-Jun-01	Registered
ULTRADNS	European Union	UltraDNS	1910876	19-Oct-	1910876	29-Jan-	Registered

MARK/TITLE	COUNTRY	APPLICANT/ OWNER	APP. NO	DATE FILED	REG. NO	REG. DATE	STATUS
ULTRA & Design	European Union	Corporation UltraDNS Corporation	2381861	18-Sep-01	2381861	17-Jan-03	Registered
ULTRA & Design	Australia	UltraDNS Corporation	889434	18-Sep-01	889434	18-Sep-01	Registered
ULTRA & Design	Japan	UltraDNS Corporation	2.001E09	18-Sep-01	4751441	27-Feb-04	Registered
DNS ADVANTAGE	United States of America	UltraDNS Corporation	77343365	4-Dec-07	3573697	10-Feb-09	Registered
DNS ADVANTAGE (Stylized)	United States of America	UltraDNS Corporation	77811259	24-Aug-09	3830681	10-Aug-10	Registered
.BIZ & Design	United States of America	Neustar, Inc.	76276055	25-Jun-01	2746004	5-Aug-03	Registered
.BIZ & Design	Israel	NeuLevel, Inc.	151196	2-Aug-01	151196	3-Feb-03	Registered
.BIZ & Design	Israel	NeuLevel, Inc.	151197	2-Aug-01	151197	3-Feb-03	Registered
NOTHING PERSONAL. JUST BUSINESS.	United States of America	NeuLevel, Inc.	76276826	27-Jun-01	2735926	15-Jul-03	Registered
TECHNOLOGY BEHIND THE TECHNOLOGY	United States of America	NeuStar, Inc.	85478079	21-Nov-11			Pending
PROMOTE AND PROTECT	United States of America	NeuStar, Inc.	85723752	7-Sep-12			Pending
COST TO CASH	United States of	NeuStar, Inc.	85684464	23-Jul-			Pending

MARK/TITLE	COUNTRY	APPLICANT/ OWNER	APP. NO	DATE FILED	REG. NO	REG. DATE	STATUS
REAL INTELLIGENCE. BETTER DECISIONS.	America	NeuStar, Inc.	85478101	21-Nov-11			Pending
REAL INTELLIGENCE. BETTER DECISIONS.	United States of America	NeuStar, Inc.	85478101	21-Nov-11			Pending
REAL INTELLIGENCE. BETTER DECISIONS.	India	NeuStar, Inc.	2351202	20-Jun-12			Pending
REAL INTELLIGENCE. BETTER DECISIONS.	India	NeuStar, Inc.	2351203	20-Jun-12			Pending
REAL INTELLIGENCE. BETTER DECISIONS.	India	NeuStar, Inc.	2351205	20-Jun-12			Pending
REAL INTELLIGENCE. BETTER DECISIONS.	India	NeuStar, Inc.	2351208	20-Jun-12			Pending
REAL INTELLIGENCE. BETTER DECISIONS.	Brazil	NeuStar, Inc.	1578672	22-May-12			Pending
REAL INTELLIGENCE. BETTER DECISIONS.	Brazil	NeuStar, Inc.	840135556	21-May-12			Pending
REAL INTELLIGENCE. BETTER DECISIONS.	Brazil	NeuStar, Inc.	840135688	21-May-12			Pending
REAL INTELLIGENCE. BETTER DECISIONS.	Brazil	NeuStar, Inc.	840135696	21-May-12			Pending
REAL INTELLIGENCE.	Brazil	NeuStar, Inc.	840135823	21-May-			Pending

MARK/TITLE	COUNTRY	APPLICANT/ OWNER	APP. NO	DATE FILED	REG. NO	REG. DATE	STATUS
BETTER DECISIONS.				12			
.BIZ & Design	Canada	NeuLevel, Inc.	11111977	8-Aug- 01	633791	25-Feb- 05	Registered
REAL INTELLIGENCE. BETTER DECISIONS.	Brazil	NeuStar, Inc.	840135505	21-May- 12			Pending

III. Copyrights

Title	Country	Owner	Assignee	Number	Date	Reg. Status
DNS for Windows NT	United States of America	MetaInfo, Inc.	Neustar, Inc.	TX4737320	2-Mar-98	Registered
Meta IP	United States of America	MetaInfo, Inc.	Neustar, Inc.	TX4730323	2-Mar-98	
NewsChannel	United States of America	MetaInfo, Inc.	Neustar, Inc.	TX4558609	12-May-97	
POP3H	United States of America	MetaInfo, Inc.	Neustar, Inc.	TX4561539	21-May-97	
Sendmail	United States of America	MetaInfo, Inc.	Neustar, Inc.	TX4736681	2-Mar-98	
NIGHTFIRE CORE V2.0	United States of America	Neustar, Inc.	Neustar, Inc.	TX5508930	27-Mar-01	
NIGHTFIRE CORE V3.1	United States of America	Neustar, Inc.	Neustar, Inc.	TX5361926	22-Mar-01	

Schedule B

Supplemental Collateral I

I. Patents

Issued Patents

Application No.	Country	File Date	Status	Publication No.	Patent No.	Issue Date	Title
2009-554723	Japan	2008-03-19	Issued	2010-522381	5453119	2014-01-10	AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
2014-000424	Japan	2008-03-19	Issued	2014-059921	5688169	2015-01-30	AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
2010-536213	Japan	2008-11-29	Issued	2011-505634	5374513	2013-09-27	AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
201003758-8	Singapore	2008-11-29	Issued		162042	2011-05-31	AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
2009217349	Australia	2009-02-20	Issued		2009217349	2015-01-15	AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
2010-547815	Japan	2009-02-20	Issued	2011-513817	5530368	2014-04-25	AUTOMATICALLY PRESCRIBING TOTAL BUDGET

Application No.	Country	File Date	Status	Publication No.	Patent No.	Issue Date	Title
							FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
2011-534803	Japan	2009-10-30	Issued	2012-507804	5677967	2015-01-09	AUTOMATED SPECIFICATION, ESTIMATION, DISCOVERY OF CAUSAL DRIVERS AND MARKET RESPONSE ELASTICITIES OR LIFT FACTORS
201103045-9	Singapore	2009-10-30	Issued		171013	2013-11-29	AUTOMATED SPECIFICATION, ESTIMATION, DISCOVERY OF CAUSAL DRIVERS AND MARKET RESPONSE ELASTICITIES OR LIFT FACTORS
12/609,440	US	2009-10-30	Issued	US2010-0145793A1	8,244,571	2012-08-14	AUTOMATED SPECIFICATION, ESTIMATION, DISCOVERY OF CAUSAL DRIVERS AND MARKET RESPONSE ELASTICITIES OR LIFT FACTORS
13/544,871	US	2012-07-09	Issued	US2012-0316920A1	8,468,045	2013-06-18	AUTOMATED SPECIFICATION, ESTIMATION, DISCOVERY OF CAUSAL DRIVERS AND MARKET RESPONSE ELASTICITIES OR LIFT FACTORS
12/366,937	US	2009-02-06	Issued		8,200,741	2012-06-12	SYSTEM FOR PAUSE AND PLAY DYNAMIC DISTRIBUTED COMPUTING
12/366,958	US	2009-02-06	Issued		8,090,974	2012-01-03	STATE MACHINE CONTROLLED DYNAMIC DISTRIBUTED COMPUTING
13/315,500	US	2011-12-09	Issued		8,352,775	2013-01-08	STATE MACHINE CONTROLLED DYNAMIC DISTRIBUTED

Application No.	Country	File Date	Status	Publication No.	Patent No.	Issue Date	Title
							COMPUTING
13/721,902	US	2012-12-20	Issued		8,984,327	2015-03-17	STATE MACHINE CONTROLLED DYNAMIC DISTRIBUTED COMPUTING
2012294601	Australia	2012-08-06	Issued		2012294601	2014-12-04	CROSS-MEDIA ATTRIBUTION MODEL FOR ALLOCATION OF MARKETING RESOURCES
12/692,580	US	2012-01-22	Issued		9,177,079	2015-11-03	APPARATUS AND METHOD FOR PROCESSING MULTI-DIMENSIONAL QUERIES IN A SHARED NOTHING SYSTEM THROUGH TREE REDUCTION

Pending Patent Applications

Application No.	Country	File Date	Status	Publication No.	Patent No.	Issue Date	Title
PI0809293-1	Brazil	2008-03-19	Pending	PI0809293-1			AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
2,680,826	Canada	2008-03-19	Pending				AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
08732503.1	Europe	2008-03-19	Pending	2126696			AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
2015-011481	Japan	2008-03-19	Pending	2015-097119			AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR

Application No.	Country	File Date	Status	Publication No.	Patent No.	Issue Date	Title
							MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
201201920-4	Singapore	2008-03-19	Pending				AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
14/678,793	US	2015-04-03	Pending				AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
PI0819766-0	Brazil	2008-11-29	Pending	PI0819766-0			AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
2,706,960	Canada	2008-11-29	Pending				AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
14/678,800	US	2015-04-03	Pending				AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
PI0907592-5	Brazil	2009-02-20	Pending	PI0907592-5			AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
2,716,166	Canada	2009-02-20	Pending				AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR

Application No.	Country	File Date	Status	Publication No.	Patent No.	Issue Date	Title
							MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
14/659,440	US	2015-03-16	Pending				AUTOMATICALLY PRESCRIBING TOTAL BUDGET FOR MARKETING AND SALES RESOURCES AND ALLOCATION ACROSS SPENDING CATEGORIES
2009308819	Australia	2009-10-30	Pending				AUTOMATED SPECIFICATION, ESTIMATION, DISCOVERY OF CAUSAL DRIVERS AND MARKET RESPONSE ELASTICITIES OR LIFT FACTORS
PI0921697-9	Brazil	2009-10-30	Pending				AUTOMATED SPECIFICATION, ESTIMATION, DISCOVERY OF CAUSAL DRIVERS AND MARKET RESPONSE ELASTICITIES OR LIFT FACTORS
2,742,307	Canada	2009-10-30	Pending				AUTOMATED SPECIFICATION, ESTIMATION, DISCOVERY OF CAUSAL DRIVERS AND MARKET RESPONSE ELASTICITIES OR LIFT FACTORS
2015-000410	Japan	2009-10-30	Pending	2015-092392			AUTOMATED SPECIFICATION, ESTIMATION, DISCOVERY OF CAUSAL DRIVERS AND MARKET RESPONSE ELASTICITIES OR LIFT FACTORS
201308084-1	Singapore	2013-10-31	Pending				AUTOMATED SPECIFICATION, ESTIMATION, DISCOVERY OF CAUSAL DRIVERS AND MARKET RESPONSE

Application No.	Country	File Date	Status	Publication No.	Patent No.	Issue Date	Title
							ELASTICITIES OR LIFT FACTORS
13/899,241	US	2013-05-21	Pending	US2013-0332223A1			AUTOMATED SPECIFICATION, ESTIMATION, DISCOVERY OF CAUSAL DRIVERS AND MARKET RESPONSE ELASTICITIES OR LIFT FACTORS
14/622,569	US	2015-02-13	Pending				STATE MACHINE CONTROLLED DYNAMIC DISTRIBUTED COMPUTING
12/692,577	US	2010-01-22	Pending				APPARATUS AND METHOD FOR SELECTIVE MATERIALIZATION OF COMPUTATIONALLY EXPENSIVE MULTI-DIMENSIONAL TUPLES IN A SHARED NOTHING SYSTEM
12/692,579	US	2010-01-22	Pending				APPARATUS AND METHOD FOR ACCESSING MATERIALIZED AND NON-MATERIALIZED VALUES IN A SHARED NOTHING SYSTEM
201400802-3	Singapore	2012-08-06	Abandoned				CROSS-MEDIA ATTRIBUTION MODEL FOR ALLOCATION OF MARKETING RESOURCES
PCT/US14/27409	PCT	2014-03-14	Abandoned	WO/2014/152501			ITERATIVE PROCESS FOR LARGE SCALE MARKETING SPEND OPTIMIZATION
13/837,785	US	2013-03-15	Pending	US2014-0278622A1			ITERATIVE PROCESS FOR LARGE SCALE MARKETING SPEND OPTIMIZATION
14/543,613	US	2014-11-17	Pending				UNIFIED MARKETING MODEL BASED ON CONDUIT VARIABLES

II. Trademarks

Registered Trademarks

Trademark Registrant	Country	Trademark	Serial Number	Filing Date	Registration No.	Registration Date
MarketShare Partners, LLC	US	MARKETSHARE	85/934244	5/16/2013	4,718,797	04/14/15
MarketShare Partners, LLC	US	MARKETSHARE (& DESIGN)	85/934275	5/16/2013	4,718,798	04/14/15
MNPV Acquisition, LLC	US	MARKETINGNPV	76/473,001	11/27/2002	2,790,809	12/9/2003
MNPV Acquisition, LLC	US	Design Mark	76/558,653	11/10/2003	2,895,012	10/19/2004
MarketShare Partners, LLC	State of California	MARKETSHARE	115375	1/28/2014	115375	04/09/14
MarketShare Partners, LLC	State of California	MARKETSHARE (& DESIGN)	115376	1/28/2014	115376	04/09/14
MarketShare Partners, LLC	State of California	MARKETSHARE	69132	1/28/2014	69132	04/09/14
MarketShare Partners, LLC	State of California	MARKETSHARE (& DESIGN)	69133	1/28/2014	69133	04/09/14

Material Unregistered Trademarks

Trademark Registrant	Country	Trademark	Filing Date	Application No.	Status
MarketShare Partners, LLC	US	MARKETSHARE DECISIONCLOUD	1/30/2015	86520006	PENDING

MarketShare Partners, LLC	US	MARKETSHARE DECISIONCLOUD (& DESIGN)	1/30/2015	86519992	PENDING
MarketShare Partners, LLC	Taiwan	RAPIDROI	1/9/2009	098000744	Pending
MarketShare Partners, LLC	UAE	ACE	1/13/2009	124693	Pending
MarketShare Partners, LLC	UAE	RAPIDROI	1/8/2009	152628	9/25/2011
MarketShare Partners, LLC	International	ACE	1/8/2009	990760	DELETED
MarketShare Partners, LLC	International	RAPIDROI	1/8/2009	990758	DELETED

Schedule C

Supplemental Collateral II

I. Patents

Issued Patents

ASSIGNEE	COUNTRY	PATENT NO.	STATUS	FILING DATE	GRANT DATE	TITLE
Aggregate Knowledge Inc.	US	13/442,759	Pending	09-Apr-2012		MULTI-TOUCH ATTRIBUTION MODEL FOR VALUING IMPRESSIONS AND OTHER ONLINE ACTIVITIES
Aggregate Knowledge Inc.	US		converted	07-Apr-2011		MULTI-TOUCH ATTRIBUTION MODEL FOR VALUING IMPRESSIONS AND OTHER ONLINE ACTIVITIES
Aggregate Knowledge Inc.	US	13/465,891	Pending	07-May-2012		SYSTEM AND METHOD FOR COUNTING AND STORING EVENTS AS SCALAR QUANTITIES IN SKEWED COUNTING ENVIRONMENTS
Aggregate Knowledge Inc.	US		converted	06-May-2011		SYSTEM AND METHOD FOR COUNTING AND STORING EVENTS IN HIGHLY SKEWED COUNTING ENVIRONMENTS

Aggregate Knowledge Inc.	US	7,853,630	Granted	08-Jan-2008	14-Dec-2010	SYSTEM AND METHOD FOR THE DYNAMIC GENERATION OF CORRELATION SCORES BETWEEN ARBITRARY OBJECTS
Aggregate Knowledge Inc.	US	8,200,677	Granted	09-Nov-2010	12-Jun-2012	SYSTEM AND METHOD FOR THE DYNAMIC GENERATION OF CORRELATION SCORES BETWEEN ARBITRARY OBJECTS
Aggregate Knowledge Inc.	US	8,489,619	Granted	30-May-2012	16-Jul-2013	SYSTEM AND METHOD FOR THE DYNAMIC GENERATION OF CORRELATION SCORES BETWEEN ARBITRARY OBJECTS
Aggregate Knowledge Inc.	US		converted	01-Jun-2007		SYSTEM AND METHOD FOR THE DYNAMIC GENERATION OF CORRELATION SCORES BETWEEN ARBITRARY OBJECTS
Aggregate Knowledge Inc.	US	12/072454	Published	26-Feb-2008		SYSTEM AND METHOD FOR MAINTAINING METADATA CORRECTNESS
Aggregate Knowledge Inc.	US		converted	30-Jul-2007		SYSTEM AND METHOD FOR MAINTAINING METADATA

Aggregate Knowledge Inc.	US	8,032,714	Granted	18-Jun-2008	04-Oct-2011	METHODS AND SYSTEMS FOR CACHING DATA USING BEHAVIORAL EVENT CORRELATIONS
Aggregate Knowledge Inc.	US	13/235219	Allowed	16-Sep-2011		METHODS AND SYSTEMS FOR CACHING DATA USING BEHAVIORAL EVENT CORRELATIONS
Aggregate Knowledge Inc.	US		converted	28-Sep-2007		METHODS AND SYSTEMS FOR CACHING DATA USING BEHAVIORAL EVENT CORRELATIONS
Aggregate Knowledge Inc.	US	7,788,358	Granted	06-Mar-2006	31-Aug-2010	USING CROSS-SITE RELATIONSHIPS TO GENERATE RECOMMENDATIONS
Aggregate Knowledge Inc.	US	7,904,524	Granted	30-Jun-2008	08-Mar-2011	A CLIENT RECOMMENDATION MECHANISM
Aggregate Knowledge Inc.	US	13/802,497	Pending	13-Mar-2013		SYSTEM AND METHOD FOR HANDLING MULTI-PASS QUERIES
Aggregate Knowledge Inc.	US		converted	13-Mar-2012		CLOUD-BASED QUERY PROCESSING AND ANALYSIS PLATFORM
Aggregate Knowledge Inc.	US	13/802,571	Pending	13-Mar-2013		MANAGING MEMORY RESOURCES IN A NETWORKED ENVIRONMENT

Aggregate Knowledge Inc.	US	13/802,616	Pending	13-Mar-2013		SYSTEM FOR MANAGING MEMORY RESOURCES IN A NETWORKED ENVIRONMENT
Aggregate Knowledge Inc.	US	13/802,636	Pending	13-Mar-2013		INTEGRATING DATA FROM DISPARATE DATA SOURCES FOR QUERY PROCESSING
Aggregate Knowledge Inc.	US	13/802,660	Pending	13-Mar-2013		INTEGRATING DATA FROM DISPARATE DATA SOURCES FOR QUERY PROCESSING USING A HASH-BASED NODE INDEX
Aggregate Knowledge Inc.	US	5,245,337	Granted	29-May-1991	14-Sep-1993	DATA COMPRESSION WITH PIPELINE PROCESS HAVING SEPARATE MEMORIES
Aggregate Knowledge Inc.	US	5,966,709	Granted	26-Sep-1997	12-Oct-1999	METHOD OF OPTIMIZING AN N-GRAM MEMORY STRUCTURE
Aggregate Knowledge Inc.	US	5,983,232	Granted	28-Sep-1998	09-Nov-1999	VIRTUAL STRUCTURED INFORMATION SYSTEM
Aggregate Knowledge Inc.	US	6,018,734	Granted	28-Sep-1998	25-Jan-2000	MULTI-DIMENSIONAL PATTERN ANALYSIS

II. Trademarks

AGGREGATE KNOWLEDGE	registration number 3548432	9/12/2006	Aggregate Knowledge Inc.
AGKNOW	registration number 3633321	9/12/2006	Aggregate Knowledge Inc.
PIQUE	registration number 3544570	8/23/2007	Aggregate Knowledge Inc.