## 503411927 07/28/2015 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3458561

SUBMISSION TYPE:		NEW AS	SSIGNMENT				
NATURE OF CONVEYANCE:		ASSIGN	ASSIGNMENT				
CONVEYING PARTY D	ΑΤΑ	I					
		Name				Executio	n Date
EXPANSE NETWORKS	S, INC					08/18/200	
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RECEIVING PARTY DA	ΑΤΑ						
Name:	PRIME F	PRIME RESEARCH ALLIANCE E, INC.					
Street Address:	CRAIGM	UIR CHAMB	BERS				
Internal Address:	P.O. BO	X 71, ROAD	TOWN				
City:	TORTOL	A					
State/Country:	VIRGIN	ISLANDS, BI	RITISH				
PROPERTY NUMBERS	S Total: 1						
Property Type			Number				
Application Number: 1448		4488005					
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CORRESPONDENCE	DATA						
Fax Number:	(2	215)735-9305					
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PATENT REEL: 036197 FRAME: 0113

#### ASSIGNMENT

WHEREAS, Expanse Networks, Inc., hereinafter referred to as the ASSIGNOR, a Corporation of Delaware, having its principal place of business at 6206 Kellers Church Road, Pipersville, PA 18947 is the owner of certain inventions or improvements for which applications for Letters Patent have been made or for which Letters Patent have been issued, all of which are listed on Attachment A hereto (hereafter Patent Property); and

WHEREAS, Prime Research Alliance E, Inc., hereinafter referred to as the ASSIGNEE, a Corporation of the British Virgin Islands, having its principal place of business at Craigmuir Chambers, P.O. Box 71, Road Town, Tortola, British Virgin Islands, is desirous of acquiring the entire right, title and interest in and to the said Patent Property in any and all countries;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over to said ASSIGNEE, the entire right, title and interest in and to said Patent Property and any and all continuations, divisions and renewals of and substitutes for said Patent Property and to and under any and all additional Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extensions of said Letters Patent, and the full right to sue for and recover damages recoverable for past infringement of the same (including the right of ASSIGNEE to be substituted for ASSIGNOR as a party in any pending action instituted by ASSIGNOR for infringement of any Patent Property), and for violations of provisional rights having arisen from any published application(s) for said Patent Property. ASSIGNOR further assigns to and authorizes said ASSIGNEE to file corresponding applications for Letters Patent in all countries, to be held and enjoyed by said ASSIGNEE, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by ASSIGNOR had this assignment, sale and transfer not been made.

It is hereby covenanted that ASSIGNOR has full right to convey the entire interest herein assigned, and that ASSIGNOR has not executed and will not execute any agreement in conflict herewith, and ASSIGNOR further covenants and agrees that it will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said Patent Property in said assignee, its successors, assigns, nominees, or legal representatives, and ASSIGNOR agrees to communicate to said ASSIGNEE or to its nominee all known facts respecting said Patent Property, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything reasonably possible to aid said ASSIGNEE, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries, all at the expense, however, of said ASSIGNEE, its successors, assigns, nominees or legal representatives. AND ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said ASSIGNEE, as assignee of the entire right, title and interest, any and all Letters Patent for said Patent Property, including any and all Letters Patent of the United States which may be issued and granted on or as a result of any applications included in said Patent Property, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, the undersigned, being properly authorized to execute this Assignment, hereunto sets their hand and seal.

Expanse Networks, Inc.

By: Chah Ud

Chief Executive Officer PRESEDENT

Date: AUG 18.2004

STATE OF <u>Parasylvania</u>: SS COUNTY OF <u>Fhiladelphia</u>:

On this  $13^{\frac{14}{2}}$  day of Avgust, year of  $500^{\circ}$ , before me, the undersigned officer, personally appeared (AR) is  $A \cdot E H gRi vg$ , who acknowledged himself/herself to be the <u>flexing with the second second</u>

Should A. 7/

Notary Public

NOTARIAL SEAL DEBORAH A. VANORE, Notary Public CRy of Philadelphia, Phila. County My Commission Expires March 28, 2005

#### ATTACHMENT A

#### List of Assigned Patents and Patent Applications

Patent Number Issue Date Title US 6,216,129 10-Apr-01 Advertisement Selection System Supporting Discretionary Target Market Characteristics US 6,298,348 2-Oct-01 Consumer Profiling System US 6,324,519 27-Nov-01 Advertisement Auction System US 6,457,010 24-Sep-02 Client-Server Based Subscriber Cinaracterization System US 6,560,578 6-May-03 Advertisement Selection System Supporting Discretionary Target Market Characteristics US 6,615,039 2-Sep-03 Advertisement Subgroups for Digital Streams US 6,684,194 27-Jan-04 Subscriber Identification System US 6,704,930 9-Mar-04 Advertisement Insertion Techniques for Digital Video Streams US 6,714,917 30-Mar-04 Subscriber Identification Based On Electronic Program Guide Data

Issued U.S. Patent Listing

#### Pending U.S. Patent Application Listing

Patent Application Number	Filing/ Publication Date	Title
09/204,888	3-Dec-98	Subscriber Characterization System
09/205,119	3-Dec-98	Advertisement Monitoring System
09/516,983	1-Mar-00	Subscriber Characterization System With Filters
09/553,637	20-Apr-00	Advertising Management System For Digital Video Streams
09/568,084	10-May-00	Advertisement Subgroups For Digital Video Streams
09/591,577	9-Jun-00	Privacy-Protected Advertising System
09/635,539	10-Aug-00	Delivering Targeted Advertisements In Cable-Based Networks

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09/635,542	10-Aug-00	Grouping Subscribers Based On Demographic Data
09/635,544	10-Aug-00	Transporting Ad Characterization Vectors
09/658,204	8-Sep-00	Targeted Advertising Through Electronic Program Guide
09/660,301	12-Sep-00	Viewership Reporting For Switched Digital Video Networks
09/680,622	6-Oct-00	Method And System For Addressable And Program Independent Advertising During Recorded Programs
09/694,848	20-Oct-00	Method And Apparatus For Inserting Digital Media Advertisements Into Statistical Multiplexed Streams
09/712,790	14-Nov-00	Queue Based Advertisement Scheduling And Sales
09/742,507 US20020083451A1	21-Dec-00 27-Jun-02	User-Friendly Electronic Program Guide Based On Subscriber Characterizations
09/742,527 US20020083444A1	21-Dec-00 27-Jun-02	System And Method For Automatically Managing Avail Inventory Data And Avail Pricing
09/742,534 US20020083442A1	21-Dec-00 27-Jun-02	Queue-Based Head-End Advertisement Scheduling Method And Apparatus
09/742,852 US20020083439A1	21-Dec-00 27-Jun-02	System For Rescheduling And Inserting Advertisements
09/748,942 US20020083443A1	27-Dec-00 27-Jun-02	Advertisement Distribution System For Distributing Targeted Advertisements In Television Systems
09/748,943 US20020083445A1	27-Dec-00 27-Jun-02	Delivering Targeted Advertisements To The Set-Top- Box
09/748,949 US20020083441A1	27-Dec-00 27-Jun-02	Advertisement Filtering And Storage For Targeted Advertisement Systems
09/749,255 US20010032333A1	27-Dec-00 18-Oct-01	Scheduling And Presenting IPG Ads In Conjunction With Programming Ads In A Television Environment
09/750,800 US20020087975A1	28-Dec-00 4-Jul-02	System And Method For Delivering Targeted Advertisements Using Multiple Presentation Streams
09/750,812 US20020087980A1	28-Dec-00 4-Jul-02	Grouping Advertisement Sub Avails
09/751,349 US20020087973A1	28-Dec-00 4-Jul-02	Inserting Local Signals During MPEG Channel Changes
09/766,004 US20020056107A1	19-Jan-01 9-May-02	System And Method For Delivering Statistically Scheduled

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		Advertisements
09/796,339	28-Feb-01	
US20010049620A1	6-Dec-01	Privacy-Protected Targeting
09/807,887		System
	19-Apr-01	Consumer Profiling And
09/824,434		Advertisement Selection System
US20020144263A1	3-Oct-02	Grouping Of Advertisements Or
	2-Apr-01	An Advertising Channel In A
09/857,160	1-Jul-01	Targeted Advertisement System
09/857,256	And a second sec	Subscriber Identification System
	1-Jun-01	Subscriber Characterization And
09/857,257		Advertisement Monitoring System
09/928,024	1-Jun-01	Advertisement Auction System
US20020123928A1	10-Aug-01	Targeting Ads To Subscribers
	5-Sep-02	Based On Privacy-Protected
09/998,979		Subscriber Profiles
US20020129368A1	31-Oct-01	Profiling And Identification Of
10/006,874	12-Sep-02	Television Viewers
US20020144262A1	14-Nov-01	Alternative Advertising In
10/031,142	3-Oct-02	Prerecorded Media
	9-Nov-01	Advertisement Subgroups For
10/031,268		Digital Video Streams
10/031,200	23-Mar-02	Advertising Management System
10/049,246		For Digital Video Streams
101049,240	28-Jan-02	Method And Apparatus For
		Inserting Digital Media
		Advertisements Into Statistical
10/068,771		Multiplexed Streams
US20030149975A1	5-Feb-02	Targeted Advertising In On
10/116,669	7-Aug-03	Demand Programming
US20020178445A1	3-Apr-02	Subscriber Selected
	28-Nov-02	Advertisement Display And
0/116,692	2.4	Scheduling
JS20020178447A1	3-Apr-02 28-Nov-02	Behavioral Targeted Advertising
0/116,694		
JS20020184047A1	3-Apr-02 5-Dec-02	Universal Ad Queue
0/229,784		
IS20020194058A1	28-Aug-02	Consumer Profiling
0/229783	19-Dec-02	
S20030004810A1	28-Aug-02	Advertisement Selection System
and contract	2-Jan-03	Supporting Discretionary Target
/759,620		Market Characteristics
<ul> <li>Alternation</li> </ul>	16-Jan-04	Advertisement Management
		System For Digital Video Streams

# Issued Foreign Patent Listing

CA 2,353,646	Issue Date	Title
AU 768680		Subscriber Characterization And Advertisement Monitoring System
	10-1760-03	Consumer Profiling And Advertisement Selection System

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### Pending Foreign Patent Application Listing

| Patent Application Number | Filing Date | Title                                                                                                         |
|---------------------------|-------------|---------------------------------------------------------------------------------------------------------------|
| CA2353384AA               | 2-Dec-99    | Advertisement Auction System                                                                                  |
| CA2353385AA               | 2-Dec-99    | Subscriber Identification System                                                                              |
| CA2353393AA               | 2-Dec-99    | Consumer Profiling And<br>Advertisement Selection System                                                      |
| CA2371906AA               | 10-May-00   | Advertisement Subgroups For<br>Digital Video Streams                                                          |
| CA2383352AA               | 20-Apr-00   | Advertising Management System<br>For Digital Video Streams                                                    |
| CA2386941AA               | 20-Oct-00   | Method And Apparatus For<br>Inserting Digital Media<br>Advertisements Into Statistical<br>Multiplexed Streams |
| CA2442842AA               | 3- Apr-02   | Alternative Advertising In<br>Prerecorded Media                                                               |
| EP1133745A1               | 2-Dec-99    | Consumer Profiling And<br>Advertisement Selection System                                                      |
| JP2002531897T2            | 1-Jun-01    | Consumer Profiling And<br>Advertisement Selection System                                                      |

PATENT REEL: 036197 FRAME: 0119 ~~~~

**RECORDED: 07/28/2015**