505714406 10/09/2019

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT | |
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| NATURE OF CONVEYANCE: | ASSIGNMENT | |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------------------------|----------------|
| VISHWAS SHARADANAGAR PANCHAKSHARAIAH | 03/02/2017 |
| VIKRAM MAKAM GUPTA | 03/02/2017 |

RECEIVING PARTY DATA

| Name: | ROVI GUIDES, INC. | |
|-----------------|-------------------|--|
| Street Address: | 2160 GOLD STREET | |
| City: | SAN JOSE | |
| State/Country: | CALIFORNIA | |
| Postal Code: | 95002 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16490196 |

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using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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| ATTORNEY DOCKET NUMBER: | 003597-1604-301 | |
|-------------------------|------------------|--|
| NAME OF SUBMITTER: | TER: LINDA BLAKE | |
| SIGNATURE: | /Linda Blake/ | |
| DATE SIGNED: | 10/09/2019 | |

Total Attachments: 2

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PATENT 505714406 REEL: 050663 FRAME: 0989

Docket#: 003599-1604-WO1 003597-1604-301

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ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned,

Vishwas Sharadanagar Panchaksharaiah; and Vikram Makam Gupta

who have created a certain invention for which an International Patent Application is being filed under the Patent Cooperation Treaty in the United States Receiving Office concurrently herewith and is entitled:

SYSTEMS AND METHODS FOR ADDRESSING A CORRUPTED SEGMENT IN A MEDIA ASSET

Do hereby sell, assign and transfer to Rovi Guides, Inc., a corporation of Delaware, having a place of business at Two Circle Star Way, San Carlos, CA 94070, its successors, assigns, and legal representatives, the full and exclusive right to said invention and any application directed to said invention in the United States, its territorial possessions and all foreign countries, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States, its territorial possessions and all foreign countries; and in and to any and all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, and all other applications for Letters Patent relating thereto which have been or shall be filed in the United States, its territorial possessions and/or any foreign countries, and all rights, together with all priority rights, under any of the international conventions, unions, agreements, acts, and treaties, including all future conventions, unions, agreements, acts, and treaties, and in any and all International Patent Applications directed to said invention filed, in any receiving office, under the Patent Cooperation Treaty, designating any or all Patent Cooperation Treaty member countries, including Albania (AL), Algeria (DZ), Angola (AO), Antigua & Barbuda (AG), Armenia (AM), Australia (AU), Austria (AT), Azerbaijan (AZ), Bahrain (BH), Barbados (BB), Belarus (BY), Belgium (BE), Belize (BZ), Benin (BJ), Bosnia and Herzegovina (BA), Botswana (BW), Brazil (BR), Bulgaria (BG), Burkina Faso (BF), Brunei Darussalam (BN), Cameroon (CM), Canada (CA), Central African Republic (CF), Chad (TD), Chile (CL), China (CN), Colombia (CO), Comoros (KM), Congo (CG), Costa Rica (CR), Côte d'Ivoire (CI), Croatia (HR), Cuba (CU), Cyprus (CY), Czech Republic (CZ), Democratic People's Republic of Korea (KP), Denmark (DK), Dominica (DM), Dominican Republic (DO), Ecuador (EC), Egypt (EG), El Salvador (SV), Equatorial Guinea (GQ), Estonia (EE), Finland (FI), France (FR), Gabon (GA), Gambia (GM), Georgia (GE), Germany (DE), Ghana (GH), Greece (GR), Grenada (GD), Guatemala (GT), Guinea (GN), Guinea Bissau (GW), Honduras (HN), Hungary (HU), Iceland (IS), India (IN), Islamic Republic o Iran (IR), Indonesia (ID), Ireland (IE), Israel (IL), Italy (IT), Japan (JP), Kazakstan (KZ), Kenya (KE), Kyrgyzstan (KG), Lao People's Democratic Republic (LA), Latvia (LV), Lesotho (LS), Liberia (LR), Libya (LY), Liechtenstein (LI), Lithuania (LT), Luxembourg (LU), Madagascar (MG), Malawi (MW), Malaysia (MY), Mali (ML), Malta (MT), Mauritania (MR), Mexico (MX), Monaco (MC), Mongolia (MN), Montenegro (ME); Morocco (MA), Mozambique (MZ), Namibia (NA), Netherlands (NL), New Zealand (NZ), Nicaragua (NI), Niger (NE), Nigeria (NG), Norway (NO), Oman (OM), Panama (PA), Papua New Guinea (PG), Peru (PE), Philippines (PH), Poland (PL), Portugal (PT), Qatar (QA), Republic of Korea (KR), Republic of Moldova (MD), Romania (RO), Russian Federation (RU), Rwanda (RW), Saudi Arabia (SA), Saint Kitts and Nevis (KN), Saint Lucia (LC), Saint Vincent and the Grenadines (VC), San Marino (SM), Sao Tome and Principe (ST), Senegal (SN), Serbia (RS), Sevenelles (SC), Sierra Leone (SL), Singapore (SG), Slovakia (SK), Slovenia (SI), South Africa (ZA), Spain (ES), Sri Lanka (LK), Sudan (SD), Swaziland (SZ), Sweden (SE), Switzerland (CH), Syrian Arab Republic (SY), Tajikistan (TI), Thailand (TH). The former Yugoslav Republic of Macedonia (MK), Togo (TG), Trinidad and Tobago (FT), Tunisia (TN), Turkey (TR), Turkmenistan (TM), Uganda (UG), Ukraine (UA), United Arab Emirates (AE), United Kingdom (GB), United Republic of Tanzania (TZ), United States of America (US), Uzbekistan (UZ), Viet Nam (VN), Zambia (ZM) and Zimbabwe (ZW) and all other PCT member countries, including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof, and any substitute applications therefore:

Agree that Rovi Guides, Inc., hereinafter referred to as Assignee, may apply for and receive Letters Patent for said invention and said inventions, hereinafter referred to as said invention, in its own name, in the United States, its territorial possessions, any receiving office under the Patent Cooperation Treaty, and all foreign countries; and that, when requested to carry out in good faith the intent and purpose of this assignment, at the expense of said Assignee, its successors, assigns and legal representatives, the undersigned will execute all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, execute all rightful oaths, assignments, powers of

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attorney and other papers, testify in any legal or quasi legal proceedings; communicate to said Assignee, its successors, assigns or legal representatives all facts known to the undersigned relating to said invention and the history thereof; and generally do everything possible which said Assignee, its successors, assigns, or legal representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said invention and for vesting title to said invention and all applications for patents on said invention in said Assignee, its successors, assigns, or legal representatives; and

Covenant with said Assignee, its successors, assigns, or legal representatives that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

IN TESTIMONY WHEREOF we have hereunto set our signatures on the date indicated below.

| Full Name of First Inventor: | | |
|--------------------------------------|----------------------|--|
| Vishwas Sharadanagar Panchaksharaiah | | |
| Inventor's Signature: | Date: Month/Day/Year | |
| Mishwas rp | 03/02/2017 | |
| Full Name of Second Inventor: | | |
| Vikram Makam Gupta | | |
| Inventor's Signature: | Date: Month/Day/Year | |
| 1 Mendry 16 | 03/02/2017 | |
| <u> </u> | | |