

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5697904

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
SEQUENCE:	4

CONVEYING PARTY DATA

Name	Execution Date
SMARTDRIVE SYSTEMS, INC.	08/30/2019

RECEIVING PARTY DATA

Name:	TCS TALENTS, LLC, AS THE COLLATERAL AGENT
Street Address:	2100 MCKINNEY AVE, SUITE 1500
City:	DALLAS
State/Country:	TEXAS
Postal Code:	75201

PROPERTY NUMBERS Total: 87

Property Type	Number
Application Number:	16400806
Application Number:	16430262
Application Number:	16426386
Application Number:	16417604
Application Number:	16531896
Application Number:	14594387
Application Number:	11296906
Application Number:	13734800
Application Number:	11377164
Application Number:	11377167
Application Number:	13957810
Application Number:	14076511
Application Number:	14055833
Application Number:	14036299
Application Number:	13571416
Application Number:	14525416
Application Number:	14529134
Application Number:	14516650
Application Number:	14486744

PATENT

Property Type	Number
Application Number:	14540825
Application Number:	14592245
Application Number:	14592446
Application Number:	14531854
Application Number:	14676622
Application Number:	14798454
Application Number:	12096591
Application Number:	12096592
Application Number:	11593659
Application Number:	11593682
Application Number:	11637754
Application Number:	11800876
Application Number:	13539312
Application Number:	14186416
Application Number:	11595015
Application Number:	14177047
Application Number:	14634688
Application Number:	14935247
Application Number:	15006066
Application Number:	15151877
Application Number:	15077825
Application Number:	14929197
Application Number:	14944037
Application Number:	14981384
Application Number:	14975304
Application Number:	15201385
Application Number:	15583854
Application Number:	15341714
Application Number:	15341737
Application Number:	15295932
Application Number:	15357897
Application Number:	15346479
Application Number:	15370707
Application Number:	15441070
Application Number:	15458610
Application Number:	15483825
Application Number:	15486951
Application Number:	15606760

Property Type	Number
Application Number:	15478019
Application Number:	15620420
Application Number:	15592009
Application Number:	15658136
Application Number:	15674915
Application Number:	15958636
Application Number:	15958659
Application Number:	15727227
Application Number:	15782140
Application Number:	15879927
Application Number:	15879772
Application Number:	15881518
Application Number:	15906977
Application Number:	16058591
Application Number:	16025852
Application Number:	16025813
Application Number:	16025799
Application Number:	15969614
Application Number:	16034185
Application Number:	16049389
Application Number:	16158124
Application Number:	16138588
Application Number:	16138666
Application Number:	16160451
Application Number:	16400841
Application Number:	16400874
Application Number:	16400903
Application Number:	16279859
Application Number:	16280922
Application Number:	16280903

CORRESPONDENCE DATA

Fax Number: (214)981-3400

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PATENT

REEL: 050255 FRAME: 0073

Address Line 4: DALLAS, TEXAS 75201	
ATTORNEY DOCKET NUMBER:	69347-10090
NAME OF SUBMITTER:	DUSAN CLARK
SIGNATURE:	/Dusan Clark/
DATE SIGNED:	09/03/2019
Total Attachments: 5 source=SmartDrive - Patent Security Agreement [Executed]#page1.tif source=SmartDrive - Patent Security Agreement [Executed]#page2.tif source=SmartDrive - Patent Security Agreement [Executed]#page3.tif source=SmartDrive - Patent Security Agreement [Executed]#page4.tif source=SmartDrive - Patent Security Agreement [Executed]#page5.tif	

GRANT OF A SECURITY INTEREST – PATENTS

August 30, 2019

WHEREAS, SmartDrive Systems, Inc., a Delaware corporation (the “Grantor”), holds all right, title and interest in the letter patents, design patents and utility patents listed on the attached Schedule A, which patents are issued or applied for in the United States Patent and Trademark Office (the “Patents”);

WHEREAS, the Grantor has entered into a Pledge and Security Agreement, dated as of the date hereof (as amended, restated, amended and restated, supplemented, modified or otherwise changed from time to time, the “Security Agreement”), in favor of TCS Talents, LLC, as the Collateral Agent for itself and certain lenders (in such capacity, together with its successors and assigns, if any, the “Grantee”); and

WHEREAS, pursuant to the Security Agreement, the Grantor has granted to the Grantee, and granted to the Grantee for the benefit of the Secured Parties (as such term is defined in the Security Agreement), a continuing security interest in all right, title and interest of the Grantor in, to and under the Patents and the applications and registrations thereof, and all proceeds thereof, including, without limitation, any and all causes of action which may exist by reason of infringement thereof and any and all damages arising from past, present and future violations thereof (the “Collateral”), to secure the payment, performance and observance of the Secured Obligations (as defined in the Security Agreement).

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantor does hereby grant to the Grantee and grant to the Grantee for the benefit of the Secured Parties, a continuing security interest in the Collateral to secure the prompt payment, performance and observance of the Secured Obligations.

The Grantor does hereby further acknowledge and affirm that the rights and remedies of the Grantee with respect to the Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein.

If any conflict or inconsistency exists between this Grant of Security Interest – Patents and the Security Agreement, the Security Agreement shall govern.

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IN WITNESS WHEREOF, the Grantor has caused this Assignment to be duly executed by its officer thereunto duly authorized as of the date first written above.

SMARTDRIVE SYSTEMS, INC.

By: 
Name: Shawn Swaney
Title: Chief Financial Officer

[Signature Page to Grant of a Security Interest – Patents]

PATENT
REEL: 050255 FRAME: 0076

SCHEDULE A TO GRANT OF A SECURITY INTEREST

[See attached]

Patents as of August 15, 2019

Patent Number	Patent Title	Applicant	Status	Priority Date	Effective Date	IPC Class	IPC Class	IPC Class
45YN-028001	SYSTEMS AND METHODS FOR VERIFYING WHETHER VEHICLE OPERATORS ARE PAYING ATTENTION	United States of America	Pending	16/400,806	May 1, 2019			
45YN-028002	SYSTEMS AND METHODS FOR USING ON-BOARD RESOURCES OF INDIVIDUAL VEHICLES IN A FLE...	PCT	Pending	PCT/US2019/027860	Apr 17, 2019			
45YN-028003	LANE-SPECIFIC RECOMMENDATIONS	United States of America	Pending	16/430,262	Jun 3, 2019			
45YN-028004	MEASURING OPERATOR READINESS AND READINESS TESTING TRIGGERING IN AN AUTONOMOUS V...	European Patent Office	Pending	17867507.0	Oct 13, 2017			
45YN-028005	AUTONOMOUS VEHICLE OPERATOR PERFORMANCE TRACKING	European Patent Office	Pending	17867883.5	Oct 13, 2017			
45YN-028006	SYSTEMS AND METHODS FOR COMPARING DRIVING PERFORMANCE FOR SIMULATED DRIVING	PCT	Pending	PCT/US2019/039197	Jun 26, 2019			
45YN-028007	VEHICLE EVENT RECORDING SYSTEM AND METHOD	United States of America	Pending	16/426,386	May 30, 2019			
45YN-028008	AUTONOMOUS VEHICLE OPERATOR PERFORMANCE TRACKING	United States of America	Pending	16/417,604	May 20, 2019			
45YN-028009	VEHICLE EXCEPTION EVENT MANAGEMENT SYSTEMS	United States of America	Pending	16/531,896	Aug 5, 2019			
45YN-213618	RAIL VEHICLE EVENT TRIGGERING SYSTEM METHOD	United States of America	Issued	14/594,387	1/12/2015 0:00	9,296,401	3/29/2016 0:00	
45YN-213619	VEHICLE EVENT RECORDER SYSTEMS	United States of America	Pending	11/296,906	Dec 8, 2005			
45YN-213620	VEHICLE EVENT RECORDER SYSTEMS	Canada	Issued	2632689	12/8/2006 0:00	2632689	10/18/2016 0:00	
45YN-213621	MEMORY MANAGEMENT IN EVENT RECORDING SYSTEMS	United States of America	Issued	13/734,800	1/4/2013 0:00	8,880,279	11/4/2014 0:00	
45YN-213622	MEMORY MANAGEMENT IN EVENT RECORDING SYSTEMS	Canada	Issued	2632738	12/7/2006 0:00	2632738	5/17/2016 0:00	
45YN-213623	MULTI-STAGE MEMORY BUFFER AND AUTOMATIC TRANSFERS IN VEHICLE EVENT RECORDING SYS...	Canada	Allowed	2,632,685	Dec 7, 2006			
45YN-213624	VEHICLE EVENT RECORDED SYSTEMS AND NETWORKS HAVING PARALLEL COMMUNICATION LINKS	European Patent Office	Issued	07753183.8	3/14/2007 0:00	2002369	8/5/2015 0:00	
45YN-213624	VEHICLE EVENT RECORDED SYSTEMS AND NETWORKS HAVING PARALLEL COMMUNICATION LINKS	France	Granted	07753183.8	Mar 14, 2007	2002369	Aug 5, 2015	
45YN-213624	VEHICLE EVENT RECORDED SYSTEMS AND NETWORKS HAVING PARALLEL COMMUNICATION LINKS	Germany	Granted	07753183.8	Mar 14, 2007	602007042445.3	Aug 5, 2015	
45YN-213624	VEHICLE EVENT RECORDED SYSTEMS AND NETWORKS HAVING PARALLEL COMMUNICATION LINKS	United Kingdom	Granted	07753183.8	Mar 14, 2007	2002369	Aug 5, 2015	
45YN-213625	VEHICLE EVENT RECORDERS WITH INTEGRATED WEB SERVER	United States of America	Issued	11/377,164	3/16/2006 0:00	8,996,240	3/31/2015 0:00	
45YN-213626	VEHICLE EVENT RECORDER SYSTEMS AND NETWORKS HAVING INTEGRATED CELLULAR WIRELESS COMMUNICATIONS SYSTEMS	United States of America	Issued	11/377,167	3/16/2006 0:00	9,201,842	12/1/2015 0:00	
45YN-213626	VEHICLE EVENT RECORDER SYSTEMS AND NETWORKS HAVING INTEGRATED CELLULAR WIRELESS COMMUNICATIONS SYSTEMS	United States of America	Issued	13/957,810	8/2/2013 0:00	9,208,129	12/8/2015 0:00	
45YN-213629	VEHICLE FUEL CONSUMPTION MONITOR AND FEEDBACK SYSTEMS	United States of America	Issued	14/076,511	11/11/2013 0:00	9,610,955	4/4/2017 0:00	
45YN-213630	VEHICLE EVENT PLAYBACK APPARATUS AND METHODS	United States of America	Issued	14/055,833	10/16/2013 0:00	9,501,878	11/22/2016 0:00	
45YN-213631	DISTRIBUTED VEHICLE EVENT RECORDER SYSTEMS HAVING A PORTABLE MEMORY DATA TRANSFER SYSTEM	United States of America	Issued	14/036,299	9/25/2013 0:00	9,183,679	11/10/2015 0:00	
45YN-213632	VEHICLE EVENT PLAYBACK APPARATUS AND METHODS	United States of America	Issued	13/571,416	8/10/2012 0:00	9,728,228	8/8/2017 0:00	
45YN-213634	RAIL VEHICLE EVENT DETECTION AND RECORDING SYSTEM	United States of America	Issued	14/525,416	10/28/2014 0:00	9,663,127	5/30/2017 0:00	
45YN-213635	VEHICLE OPERATOR PERFORMANCE HISTORY RECORDING, SCORING AND REPORTING SYSTEMS	United States of America	Issued	14/529,134	10/30/2014 0:00	9,761,067	9/12/2017 0:00	
45YN-213636	VEHICLE EXCEPTION EVENT MANAGEMENT SYSTEMS	United States of America	Issued	14/516,650	10/17/2014 0:00	9,738,156	8/22/2017 0:00	
45YN-213637	SYSTEM AND METHOD TO DETECT EXECUTION OF DRIVING MANEUVERS	United States of America	Issued	14/486,744	9/15/2014 0:00	9,594,371	3/14/2017 0:00	
45YN-213638	SYSTEM AND METHOD FOR DETECTING A VEHICLE EVENT AND GENERATING REVIEW CRITERIA	United States of America	Pending	14/540,825	Nov 13, 2014			
45YN-213639	SYSTEM AND METHOD FOR AGGREGATION DISPLAY AND ANALYSIS OF RAIL VEHICLE EVENT INFORMATION	United States of America	Issued	14/592,245	1/8/2015 0:00	9,487,222	11/8/2016 0:00	
45YN-213640	SYSTEM AND METHOD FOR SYNTHESIZING RAIL VEHICLE EVENT INFORMATION	United States of America	Issued	14/592,446	1/8/2015 0:00	9,902,410	2/27/2018 0:00	
45YN-213641	MEMORY MANAGEMENT IN EVENT RECORDING SYSTEMS	United States of America	Issued	14/531,854	11/3/2014 0:00	9,226,004	12/29/2015 0:00	
45YN-213642	VEHICLE EVENT RECORDING SYSTEM AND METHOD	United States of America	Issued	14/676,622	4/1/2015 0:00	9,679,420	6/13/2017 0:00	
45YN-213643	SYSTEM AND METHOD TO DETECT EXECUTION OF DRIVING MANEUVERS	European Patent Office	Pending	15155661.0	Feb 18, 2015			
45YN-213645	VEHICLE EVENT RECORDER SYSTEMS AND NETWORKS HAVING INTEGRATED CELLULAR WIRELESS COMMUNICATIONS SYSTEMS	United States of America	Issued	14/798,454	7/13/2015 0:00	9,545,881	1/17/2017 0:00	
45YN-213839	VEHICLE EVENT RECORDER SYSTEMS	United States of America	Issued	12/096,591	10/3/2008 0:00	9,633,318	4/25/2017 0:00	
45YN-213840	VEHICLE EVENT RECORDER SYSTEMS	European Patent Office	Pending	06847537.5	Dec 8, 2006			
45YN-213843	MEMORY MANAGEMENT IN EVENT RECORDING SYSTEMS	United States of America	Issued	12/096,592	10/3/2008 0:00	8,374,746	2/12/2013 0:00	
45YN-213844	MEMORY MANAGEMENT IN EVENT RECORDING SYSTEMS	GB	Issued	811334.2	12/7/2006 0:00	2447184	5/4/2011 0:00	
45YN-213847	MULTI-STAGE MEMORY BUFFER AND AUTOMATIC TRANSFERS IN VEHICLE EVENT RECORDING SYSTEMS	GB	Issued	811338.3	12/7/2006 0:00	2446994	7/12/2011 0:00	
45YN-213853	VEHICLE EVENT RECORDERS WITH INTEGRATED WEB SERVER	European Patent Office	Pending	07772812.9	Mar 13, 2007			
45YN-213855	VEHICLE EVENT RECORDER SYSTEMS AND NETWORKS HAVING INTEGRATED CELLULAR WIRELESS	European Patent Office	Issued	07752929.5	3/12/2007 0:00	2002329	12/19/2018 0:00	
45YN-213855-DE	VEHICLE EVENT RECORDER SYSTEMS AND NETWORKS HAVING INTEGRATED CELLULAR WIRELESS ...	Germany	Issued	07752929.5	Mar 12, 2007	602007057166.9	Dec 19, 2018	
45YN-213855-FR	VEHICLE EVENT RECORDER SYSTEMS AND NETWORKS HAVING INTEGRATED CELLULAR WIRELESS ...	France	Issued	07752929.5	Mar 12, 2007	2002329	Dec 19, 2018	
45YN-213855-GB	VEHICLE EVENT RECORDER SYSTEMS AND NETWORKS HAVING INTEGRATED CELLULAR WIRELESS ...	United Kingdom	Issued	07752929.5	Mar 12, 2007	2002329	Dec 19, 2018	
45YN-213856	VEHICLE OPERATOR PERFORMANCE HISTORY RECORDING, SCORING AND REPORTING SYSTEMS	United States of America	Issued	11/593,659	11/7/2006 0:00	8,989,959	3/24/2015 0:00	
45YN-213859	POWER MANAGEMENT SYSTEMS FOR AUTOMOTIVE VIDEO EVENT RECORDERS	United States of America	Issued	11/593,682	11/7/2006 0:00	8,649,933	2/11/2014 0:00	
45YN-213861	DISCRETIZATION FACILITIES FOR VEHICLE EVENT DATA RECORDERS	United States of America	Issued	11/637,754	12/13/2006 0:00	8,139,820	3/20/2012 0:00	
45YN-213862	DISTRIBUTED VEHICLE EVENT RECORDER SYSTEMS HAVING A PORTABLE MEMORY DATA TRANSFER SYSTEM	United States of America	Issued	11/800,876	5/8/2007 0:00	8,239,092	8/7/2012 0:00	
45YN-213863	DISTRIBUTED VEHICLE EVENT RECORDER SYSTEMS HAVING A PORTABLE MEMORY DATA TRANSFER SYSTEM	United States of America	Issued	13/539,312	6/30/2012 0:00	8,571,755	10/29/2013 0:00	
45YN-213874	SYSTEM AND METHOD TO DETECT EXECUTION OF DRIVING MANEUVERS	United States of America	Issued	14/186,416	2/21/2014 0:00	8,892,310	11/18/2014 0:00	
45YN-213875	VEHICLE EXCEPTION EVENT MANAGEMENT SYSTEMS	United States of America	Issued	11/595,015	11/9/2006 0:00	8,868,288	10/21/2014 0:00	
45YN-213876	POWER MANAGEMENT SYSTEMS FOR AUTOMOTIVE VIDEO EVENT RECORDERS	United States of America	Issued	14/177,047	2/10/2014 0:00	9,554,080	1/24/2017 0:00	
45YN-213878	VEHICLE EVENT PLAYBACK APPARATUS AND METHODS	European Patent Office	Issued	14188978.2	10/15/2014 0:00	2866230	11/28/2018 0:00	
45YN-213878-DE	VEHICLE EVENT PLAYBACK APPARATUS AND METHODS	Germany	Issued	14188978.2	Oct 15, 2014	2866230	Nov 28, 2018	
45YN-213878-FR	VEHICLE EVENT PLAYBACK APPARATUS AND METHODS	France	Issued	14188978.2	Oct 15, 2014	2866230	Nov 28, 2018	
45YN-213878-GB	VEHICLE EVENT PLAYBACK APPARATUS AND METHODS	United Kingdom	Issued	14188978.2	Oct 15, 2014	2866230	Nov 28, 2018	
45YN-213879	VEHICLE FUEL CONSUMPTION MONITOR AND FEEDBACK SYSTEMS	European Patent Office	Pending	14192726.9	Nov 11, 2014			
45YN-213880	VEHICLE FUEL CONSUMPTION MONITOR AND FEEDBACK SYSTEMS	Canada	Pending	2,870,651	Nov 10, 2014			
45YN-213885	SYSTEM AND METHOD TO DETECT EXECUTION OF DRIVING MANEUVERS	Canada	Issued	2882604	2/20/2015 0:00	2882604	5/31/2016 0:00	
45YN-213886	VEHICLE EVENT RECORDERS WITH INTEGRATED WEB SERVER	United States of America	Issued	14/634,688	2/27/2015 0:00	9,402,060	7/26/2016 0:00	
45YN-222064	RAIL VEHICLE EVENT DETECTION AND RECORDING SYSTEM	Canada	Pending	2,905,673	Sep 25, 2015			
45YN-222065	RAIL VEHICLE EVENT DETECTION AND RECORDING SYSTEM	European Patent Office	Pending	15187226.4	Sep 28, 2015			
45YN-222494	DISTRIBUTED VEHICLE EVENT RECORDER SYSTEMS HAVING A PORTABLE MEMORY DATA TRANSFER SYSTEM	United States of America	Issued	14/935,247	11/6/2015 0:00	9,679,424	6/13/2017 0:00	
45YN-223708	VEHICLE EVENT RECORDED SYSTEMS AND NETWORKS HAVING PARALLEL COMMUNICATION LINKS	European Patent Office	Issued	16179238.9	3/14/2007 0:00	2988235	9/19/2018 0:00	
45YN-223708	VEHICLE EVENT RECORDED SYSTEMS AND NETWORKS HAVING PARALLEL COMMUNICATION LINKS	France	Granted	15179238.9	Mar 14, 2007	2988235	Sep, 19, 2018	
45YN-223708	VEHICLE EVENT RECORDED SYSTEMS AND NETWORKS HAVING PARALLEL COMMUNICATION LINKS	Germany	Granted	15179238.9	Mar 14, 2007	602007056243.0	Sep, 19, 2018	
45YN-223708	VEHICLE EVENT RECORDED SYSTEMS AND NETWORKS HAVING PARALLEL COMMUNICATION LINKS	United Kingdom	Granted	15179238.9	Mar 14, 2007	2988235	Sep, 19, 2018	
45YN-223871	SYSTEMS AND METHOD TO TRIGGER VEHICLE EVENTS BASED ON CONTEXTUAL INFORMATION	United States of America	Issued	15/006,096	1/25/2016 0:00	9,786,104	10/10/2017 0:00	
45YN-223872	SYSTEMS AND METHODS FOR CAPTURING AND OFFLOADING DIFFERENT INFORMATION BASED ON ...	United States of America	Pending	15/151,877	May 11, 2016			
45YN-223873	SYSTEM AND METHOD TO DETERMINE RESPONSIVENESS OF A DRIVER OF A VEHICLE TO FEEDBACK REGARDING DRIVING BEHAVIORS	United States of America	Issued	15/077,825	3/22/2016 0:00	9,639,804	5/2/2017 0:00	
45YN-224193	VEHICLE EVENT RECORDER SYSTEMS AND NETWORKS HAVING INTEGRATED CELLULAR WIRELESS COMMUNICATIONS SYSTEMS	United States of America	Issued	14/829,197	10/30/2015 0:00	9,566,910	2/14/2017 0:00	
45YN-224496	VEHICLE EVENT RECORDER SYSTEMS AND NETWORKS HAVING INTEGRATED CELLULAR WIRELESS COMMUNICATIONS SYSTEMS	United States of America	Issued	14/944,037	11/17/2015 0:00	9,472,029	10/18/2016 0:00	
45YN-225639	SYSTEM AND METHOD FOR AGGREGATION DISPLAY AND ANALYSIS OF RAIL VEHICLE EVENT INF...	European Patent Office	Pending	16150325.5	Jan 6, 2016			
45YN-225640	SYSTEM AND METHOD FOR AGGREGATION DISPLAY AND ANALYSIS OF RAIL VEHICLE EVENT INF...	Canada	Issued	2,916,882	Jan 7, 2016	2916882	Nov 28, 2017	
45YN-226026	MEMORY MANAGEMENT IN EVENT RECORDING SYSTEMS	United States of America	Issued	14/981,384	12/28/2015 0:00	9,911,253	3/6/2018 0:00	
45YN-226257	RAIL VEHICLE EVENT TRIGGERING SYSTEM AND METHOD	United States of America	Issued	14/975,304	11/18/2015 0:00	9,908,546	3/6/2018 0:00	
45YN-243597	VEHICLE EVENT RECORDERS WITH INTEGRATED WEB SERVER	United States of America	Issued	15/201,385	7/1/2016 0:00	9,942,526	4/10/2018 0:00	
45YN-244471	CALIBRATING SENSOR UNIT ORIENTATION FOR USE IN A VEHICLE MONITORING SYSTEM	United States of America	Issued	15/583,854	5/1/2017 0:00	9,958,473	5/1/2018 0:00	

45YN-244472	MEASURING OPERATOR READINESS AND READINESS TESTING TRIGGERING IN AN AUTONOMOUS VEHICLE	United States of America	Issued	15/341,714	11/2/2016 0:00	9,823,657	11/21/2017 0:00
45YN-244473	AUTONOMOUS VEHICLE OPERATOR PERFORMANCE TRACKING	United States of America	Issued	15/341,737	11/2/2016 0:00	9,663,118	5/30/2017 0:00
45YN-248820	VEHICLE EVENT RECORDER SYSTEMS AND NETWORKS HAVING INTEGRATED CELLULAR WIRELESS COMMUNICATIONS SYSTEMS	United States of America	Issued	15/295,932	10/17/2016 0:00	9,691,195	6/27/2017 0:00
45YN-248821	VEHICLE EVENT PLAYBACK APPARATUS AND METHODS	United States of America	Issued	15/357,897	11/21/2016 0:00	10,019,858	7/10/2018 0:00
45YN-249113	SYSTEM AND METHOD FOR AGGREGATION DISPLAY AND ANALYSIS OF RAIL VEHICLE EVENT INFORMATION	United States of America	Issued	15/346,479	11/8/2016 0:00	9,981,674	5/29/2018 0:00
45YN-250050	POWER MANAGEMENT SYSTEMS FOR AUTOMOTIVE VIDEO EVENT RECORDERS	United States of America	Issued	15/370,707	12/6/2016 0:00	10,053,032	8/21/2018 0:00
45YN-251697	SYSTEM AND METHOD TO DETERMINE RESPONSIVENESS OF A DRIVER OF A VEHICLE TO FEEDBACK REGARDING DRIVING BEHAVIORS	European Patent Office	Pending	17162267.3	Mar 22, 2017		
45YN-251698	SYSTEM AND METHOD TO DETERMINE RESPONSIVENESS OF A DRIVER OF A VEHICLE TO FEEDBACK REGARDING DRIVING BEHAVIORS	Canada	Issued	2962051	3/22/2017 0:00	2962051	9/25/2018 0:00
45YN-252130	SYSTEM AND METHOD TO DETECT EXECUTION OF DRIVING MANEUVERS	United States of America	Issued	15/441,070	2/23/2017 0:00	9,953,470	4/24/2018 0:00
45YN-253125	SYSTEM AND METHOD TO DETECT EXECUTION OF DRIVING MANEUVERS	United States of America	Pending	15/458,610	Mar 14, 2017		
45YN-253375	SYSTEM AND METHOD TO DETERMINE RESPONSIVENESS OF A DRIVER OF A VEHICLE TO FEEDBACK REGARDING DRIVING BEHAVIORS	United States of America	Issued	15/483,825	4/10/2017 0:00	10,081,365	9/25/2018 0:00
45YN-253376	RAIL VEHICLE EVENT DETECTION AND RECORDING SYSTEM	United States of America	Issued	15/486,951	Apr 13, 2017	10358154	Jul 23, 2019
45YN-254096	AUTONOMOUS VEHICLE OPERATOR PERFORMANCE TRACKING	United States of America	Issued	15/606,790	5/26/2017 0:00	9,908,535	3/6/2018 0:00
45YN-254248	VEHICLE FUEL CONSUMPTION MONITOR AND FEEDBACK SYSTEMS	United States of America	Issued	15/478,019	Apr 3, 2017	10246104	Apr 2, 2019
45YN-254442	VEHICLE EVENT RECORDING SYSTEM AND METHOD	United States of America	Issued	15/620,420	Jun 12, 2017	10360739	Jul 23, 2019
45YN-254928	RAIL VEHICLE EVENT TRIGGERING SYSTEM AND METHOD	Canada	Allowed	2,973,068	Dec 18, 2015		
45YN-254929	RAIL VEHICLE EVENT TRIGGERING SYSTEM AND METHOD	European Patent Office	Pending	15878289.6	Dec 18, 2015		
45YN-254980	SYSTEM AND METHOD FOR DETECTING A VEHICLE EVENT AND GENERATING REVIEW CRITERIA	Canada	Issued	2,967,638	Nov 13, 2015	2967638	Jun 25, 2019
45YN-254981	SYSTEM AND METHOD FOR DETECTING A VEHICLE EVENT AND GENERATING REVIEW CRITERIA	European Patent Office	Pending	15859375.6	Nov 13, 2015		
45YN-257127	DISTRIBUTED VEHICLE EVENT RECORDER SYSTEMS HAVING A PORTABLE MEMORY DATA TRANSFER	United States of America	Allowed	15/592,009	May 10, 2017		
45YN-259261	SYSTEM AND METHOD FOR SYNTHESIZING RAIL VEHICLE EVENT INFORMATION	European Patent Office	Pending	16735523.9	Jan 8, 2016		
45YN-259262	SYSTEM AND METHOD FOR SYNTHESIZING RAIL VEHICLE EVENT INFORMATION	Canada	Issued	2,973,487	Jan 8, 2016	2973487	May 28, 2019
45YN-259896	VEHICLE OPERATOR PERFORMANCE HISTORY RECORDING, SCORING AND REPORTING SYSTEMS	United States of America	Issued	15/658,136	Jul 24, 2017	10339732	Jul 2, 2019
45YN-260129	VEHICLE EXCEPTION EVENT MANAGEMENT SYSTEMS	United States of America	Allowed	15/674,915	Aug 11, 2017		
45YN-260824	MEASURING OPERATOR READINESS AND READINESS TESTING TRIGGERING IN AN AUTONOMOUS V...	PCT	Pending	PCT/182017/056337	Oct 13, 2017		
45YN-260825	AUTONOMOUS VEHICLE OPERATOR PERFORMANCE TRACKING	PCT	Pending	PCT/182017/056336	Oct 13, 2017		
45YN-262832	VEHICLE EVENT RECORDING SYSTEM AND METHOD	Canada	Issued	2,981,443	4/1/2016 0:00	2981443	5/1/2018 0:00
45YN-262833	VEHICLE EVENT RECORDING SYSTEM AND METHOD	European Patent Office	Pending	16771512.7	Apr 1, 2016		
45YN-263494	SYSTEMS AND METHODS FOR USING ON-BOARD RESOURCES OF INDIVIDUAL VEHICLES IN A FLE...	United States of America	Issued	15/958,636	Apr 20, 2018	10102691	Oct 16, 2018
45YN-263495	SYSTEMS AND METHODS FOR USING A DISTRIBUTED DATA CENTER TO CREATE MAP DATA	United States of America	Issued	15/958,659	4/20/2018 0:00	10,062,281	8/28/2018 0:00
45YN-263528	SYSTEMS AND METHOD TO TRIGGER VEHICLE EVENTS BASED ON CONTEXTUAL INFORMATION MEASURING OPERATOR READINESS AND READINESS TESTING TRIGGERING IN AN AUTONOMOUS VEHICLE	United States of America	Pending	15/727,227	Oct 6, 2017		
45YN-263529	AUTONOMOUS VEHICLE OPERATOR PERFORMANCE TRACKING	United States of America	Issued	15/782,140	10/12/2017 0:00	10,082,790	9/25/2018 0:00
45YN-267446	SYSTEM AND METHOD TO DETECT EXECUTION OF DRIVING MANEUVERS	United States of America	Issued	15/879,927	1/25/2018 0:00	10,106,174	10/23/2018 0:00
45YN-267447	VEHICLE EVENT RECORDERS WITH INTEGRATED WEB SERVER	United States of America	Issued	15/879,772	Jan 25, 2018	10249105	Apr 2, 2019
45YN-267448	CALIBRATING SENSOR UNIT ORIENTATION FOR USE IN A VEHICLE MONITORING SYSTEM	United States of America	Allowed	15/881,518	Jan 26, 2018		
45YN-269363	CALIBRATING SENSOR UNIT ORIENTATION FOR USE IN A VEHICLE MONITORING SYSTEM	European Patent Office	Pending	18170079.0	Apr 30, 2018		
45YN-269364	CALIBRATING SENSOR UNIT ORIENTATION FOR USE IN A VEHICLE MONITORING SYSTEM	United States of America	Pending	15/906,977	Feb 27, 2018		
45YN-271007	SYSTEMS AND METHODS FOR QUERYING FLEET INFORMATION STORED IN A DISTRIBUTED DATA ...	United States of America	Pending	16/058,591	Aug 8, 2018		
45YN-271203	SYSTEMS AND METHODS FOR GENERATING DATA DESCRIBING PHYSICAL SURROUNDINGS OF A VE...	United States of America	Pending	16/025,852	Jul 2, 2018		
45YN-271208	SYSTEMS AND METHODS FOR GENERATING AND PROVIDING TIMELY VEHICLE EVENT INFORMATIO...	United States of America	Pending	16/025,813	Jul 2, 2018		
45YN-271544	SYSTEMS AND METHODS FOR COMPARING DRIVING PERFORMANCE FOR SIMULATED DRIVING	United States of America	Pending	16/025,799	Jul 2, 2018		
45YN-272657	CALIBRATING SENSOR UNIT ORIENTATION FOR USE IN A VEHICLE MONITORING SYSTEM	Canada	Issued	3,003,046	Apr 30, 2018	3003046	May 28, 2019
45YN-272680	SYSTEMS AND METHOD TO TRIGGER VEHICLE EVENTS BASED ON CONTEXTUAL INFORMATION	Canada	Allowed	3,005,402	Jan 25, 2017		
45YN-272681	SYSTEMS AND METHOD TO TRIGGER VEHICLE EVENTS BASED ON CONTEXTUAL INFORMATION	European Patent Office	Pending	17743811.6	Jan 25, 2017		
45YN-272682	VEHICLE EVENT PLAYBACK APPARATUS AND METHODS	United States of America	Pending	15/969,614	May 2, 2018		
45YN-277913	POWER MANAGEMENT SYSTEMS FOR AUTOMOTIVE VIDEO EVENT RECORDERS	United States of America	Pending	16/034,185	Jul 12, 2018		
45YN-277914	SYSTEMS AND METHODS FOR USING A DISTRIBUTED DATA CENTER TO CREATE MAP DATA	United States of America	Pending	16/049,389	Jul 30, 2018		
45YN-285436	SYSTEMS AND METHODS FOR USING ON-BOARD RESOURCES OF INDIVIDUAL VEHICLES IN A FLE...	United States of America	Pending	16/158,124	Oct 11, 2018		
45YN-285437	MEASURING OPERATOR READINESS AND READINESS TESTING TRIGGERING IN AN AUTONOMOUS V...	United States of America	Pending	16/138,588	Sep 21, 2018		
45YN-285438	SYSTEM AND METHOD TO DETERMINE RESPONSIVENESS OF A DRIVER OF A VEHICLE TO FEEDBA...	United States of America	Pending	16/138,666	Sep 21, 2018		
45YN-285439	AUTONOMOUS VEHICLE OPERATOR PERFORMANCE TRACKING	United States of America	Issued	16/160,451	Oct 15, 2018	10315666	Jun 11, 2019
45YN-285440	VEHICLE EVENT PLAYBACK APPARATUS AND METHODS	European Patent Office	Pending	18200699.9	Oct 15, 2014		
45YN-286295	SYSTEMS AND METHODS FOR CAPTURING AND OFFLOADING DIFFERENT INFORMATION BASED ON ...	European Patent Office	Pending	17795715.6	May 9, 2017		
45YN-286296	SYSTEMS AND METHODS FOR CAPTURING AND OFFLOADING DIFFERENT INFORMATION BASED ON ...	Canada	Pending	3,018,939	May 9, 2017		
45YN-288266	SYSTEMS AND METHODS FOR CREATING AND USING RISK PROFILES FOR FLEET MANAGEMENT OF ...	United States of America	Pending	16/400,841	May 1, 2019		
45YN-288267	SYSTEMS AND METHODS FOR USING RISK PROFILES BASED ON PREVIOUSLY DETECTED VEHICLE...	United States of America	Pending	16/400,874	May 1, 2019		
45YN-288268	SYSTEMS AND METHODS FOR USING RISK PROFILES FOR CREATING AND DEPLOYING NEW VEHIC...	United States of America	Pending	16/400,903	May 1, 2019		
45YN-288269	SYSTEMS AND METHODS FOR DETERMINING AND USING POSTED SPEED LIMITS FOR VEHICLES	United States of America	Pending	16/279,859	Feb 19, 2019		
45YN-291706	VEHICLE FUEL CONSUMPTION MONITOR AND FEEDBACK SYSTEMS	United States of America	Pending	16/280,922	Feb 20, 2019		
45YN-291707	SYSTEM AND METHOD TO DETECT EXECUTION OF DRIVING MANEUVERS	United States of America	Pending	16/280,903	Feb 20, 2019		
45YN-291708	SYSTEM AND METHOD FOR DETECTING A VEHICLE EVENT AND GENERATING REVIEW CRITERIA	Canada	Unfiled		Nov 13, 2015		