

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6845534

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	SECURITY AGREEMENT	
CONVEYING PARTY DATA		
Name		Execution Date
DIRECTV, LLC		08/02/2021
RECEIVING PARTY DATA		
Name:	CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, AS COLLATERAL AGENT	
Street Address:	ELEVEN MADISON AVENUE, 8TH FLOOR	
City:	NEW YORK	
State/Country:	NEW YORK	
Postal Code:	10010	
PROPERTY NUMBERS Total: 845		
Property Type	Number	
Application Number:	07228793	
Application Number:	09973269	
Application Number:	08949988	
Application Number:	10101799	
Application Number:	09620833	
Application Number:	09621476	
Application Number:	09620772	
Application Number:	10003545	
Application Number:	09735861	
Application Number:	09612465	
Application Number:	09620832	
Application Number:	09666257	
Application Number:	09947422	
Application Number:	09587960	
Application Number:	09810769	
Application Number:	09652862	
Application Number:	09945483	
Application Number:	09661725	
Application Number:	11928577	
Application Number:	09655498	

PATENT

Property Type	Number
Application Number:	09649355
Application Number:	09661726
Application Number:	09732498
Application Number:	09721353
Application Number:	09992992
Application Number:	13545592
Application Number:	09960824
Application Number:	10490261
Application Number:	12172901
Application Number:	11434537
Application Number:	10302416
Application Number:	09709835
Application Number:	10731768
Application Number:	10464228
Application Number:	10640111
Application Number:	09870323
Application Number:	11820956
Application Number:	12275498
Application Number:	10038174
Application Number:	10165710
Application Number:	10291165
Application Number:	11222085
Application Number:	13332978
Application Number:	14257864
Application Number:	09967616
Application Number:	09735860
Application Number:	09839851
Application Number:	09878855
Application Number:	09818230
Application Number:	10758865
Application Number:	10758811
Application Number:	10236414
Application Number:	10758818
Application Number:	09761202
Application Number:	09837844
Application Number:	09967691
Application Number:	09783850
Application Number:	10441505

Property Type	Number
Application Number:	11862101
Application Number:	10011831
Application Number:	11504898
Application Number:	11231691
Application Number:	12011658
Application Number:	10011631
Application Number:	11880812
Application Number:	10851838
Application Number:	10046841
Application Number:	09999038
Application Number:	10012950
Application Number:	10426732
Application Number:	09858956
Application Number:	11652946
Application Number:	10017249
Application Number:	12207462
Application Number:	09858989
Application Number:	09893268
Application Number:	09976651
Application Number:	10532524
Application Number:	09967753
Application Number:	09882479
Application Number:	12410352
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Application Number:	10813948
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Application Number:	09938443
Application Number:	10040773
Application Number:	09996277
Application Number:	09996276
Application Number:	09978452
Application Number:	14285457
Application Number:	09929323
Application Number:	10866291
Application Number:	10900845

Property Type	Number
Application Number:	12110689
Application Number:	10068039
Application Number:	10142703
Application Number:	11879607
Application Number:	10074765
Application Number:	15866626
Application Number:	16860506
Application Number:	17342796
Application Number:	10255344
Application Number:	10085860
Application Number:	10051933
Application Number:	10827809
Application Number:	10444042
Application Number:	12075779
Application Number:	10993656
Application Number:	12966903
Application Number:	10425120
Application Number:	12105580
Application Number:	10209165
Application Number:	10127643
Application Number:	10061867
Application Number:	10079992
Application Number:	10295431
Application Number:	10192963
Application Number:	15211900
Application Number:	16664874
Application Number:	17347424
Application Number:	15245704
Application Number:	16532931
Application Number:	15189202
Application Number:	17143537
Application Number:	15221014
Application Number:	15879147
Application Number:	15219813
Application Number:	16102026
Application Number:	15445397
Application Number:	15365166
Application Number:	16238180

Property Type	Number
Application Number:	15251059
Application Number:	16011078
Application Number:	15217577
Application Number:	16149986
Application Number:	15250261
Application Number:	15879028
Application Number:	16159122
Application Number:	15447171
Application Number:	15015848
Application Number:	15876978
Application Number:	15236927
Application Number:	15625284
Application Number:	15289626
Application Number:	16292063
Application Number:	15596773
Application Number:	15363416
Application Number:	10339002
Application Number:	10532582
Application Number:	10319046
Application Number:	11119712
Application Number:	11501985
Application Number:	15138150
Application Number:	10313780
Application Number:	12939510
Application Number:	10434352
Application Number:	10295476
Application Number:	11490685
Application Number:	10680862
Application Number:	10532631
Application Number:	12190526
Application Number:	13600883
Application Number:	10464312
Application Number:	10339949
Application Number:	10426664
Application Number:	10790465
Application Number:	10790466
Application Number:	11784758
Application Number:	10660952

Property Type	Number
Application Number:	13053019
Application Number:	12176533
Application Number:	10962346
Application Number:	10400726
Application Number:	12077169
Application Number:	12496467
Application Number:	11656662
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Application Number:	10792484
Application Number:	11097615
Application Number:	10687474
Application Number:	10607744
Application Number:	11528229
Application Number:	10843766
Application Number:	11205249
Application Number:	12005217
Application Number:	10934606
Application Number:	12686219
Application Number:	10723617
Application Number:	11015705
Application Number:	11712327
Application Number:	10849101
Application Number:	12363455
Application Number:	13566701
Application Number:	13053100
Application Number:	11222084
Application Number:	12496443
Application Number:	14137665
Application Number:	11351760
Application Number:	12332052
Application Number:	11376055
Application Number:	11831821
Application Number:	11376813
Application Number:	11305853

Property Type	Number
Application Number:	11097482
Application Number:	13212341
Application Number:	11097479
Application Number:	11097724
Application Number:	14042599
Application Number:	11097480
Application Number:	11097481
Application Number:	11097625
Application Number:	11320318
Application Number:	13768116
Application Number:	14047932
Application Number:	11219418
Application Number:	13093642
Application Number:	11346499
Application Number:	11274771
Application Number:	11513992
Application Number:	13278872
Application Number:	11510244
Application Number:	11509929
Application Number:	11523218
Application Number:	12846699
Application Number:	11434404
Application Number:	14321436
Application Number:	15724918
Application Number:	17301722
Application Number:	11434437
Application Number:	11433969
Application Number:	13179433
Application Number:	15339559
Application Number:	11863041
Application Number:	13967253
Application Number:	11523382
Application Number:	13964997
Application Number:	11434538
Application Number:	11546116
Application Number:	11546118
Application Number:	11545846
Application Number:	11545845

Property Type	Number
Application Number:	12634530
Application Number:	11546689
Application Number:	11803649
Application Number:	11431251
Application Number:	12624018
Application Number:	11786215
Application Number:	11786136
Application Number:	13737890
Application Number:	11786100
Application Number:	13012656
Application Number:	11786214
Application Number:	11876832
Application Number:	13721655
Application Number:	11862883
Application Number:	29253323
Application Number:	29253322
Application Number:	29251084
Application Number:	11593711
Application Number:	11638202
Application Number:	11930745
Application Number:	11475743
Application Number:	29251080
Application Number:	29251082
Application Number:	11701151
Application Number:	11595315
Application Number:	12913706
Application Number:	11672461
Application Number:	12719098
Application Number:	11707496
Application Number:	14299234
Application Number:	12172126
Application Number:	13492656
Application Number:	14298584
Application Number:	15242305
Application Number:	11529941
Application Number:	11824723
Application Number:	11603632
Application Number:	11603879

Property Type	Number
Application Number:	11603743
Application Number:	11595393
Application Number:	11545278
Application Number:	11656758
Application Number:	13439450
Application Number:	11595394
Application Number:	11603878
Application Number:	11603768
Application Number:	12098747
Application Number:	11586414
Application Number:	11586383
Application Number:	11602823
Application Number:	11602821
Application Number:	11833915
Application Number:	12079579
Application Number:	11841531
Application Number:	11529932
Application Number:	11529915
Application Number:	11529949
Application Number:	11529950
Application Number:	11529840
Application Number:	11529918
Application Number:	11540037
Application Number:	12421485
Application Number:	11825263
Application Number:	12150153
Application Number:	11728378
Application Number:	11728552
Application Number:	11728379
Application Number:	11728394
Application Number:	12102362
Application Number:	11955214
Application Number:	11971800
Application Number:	12185018
Application Number:	11787409
Application Number:	12026995
Application Number:	12027876
Application Number:	12026735

Property Type	Number
Application Number:	12098235
Application Number:	29271004
Application Number:	29271036
Application Number:	29271035
Application Number:	29271003
Application Number:	11715179
Application Number:	12032807
Application Number:	11782787
Application Number:	12914629
Application Number:	11831074
Application Number:	11828292
Application Number:	11828534
Application Number:	11828520
Application Number:	11828530
Application Number:	12649143
Application Number:	11820532
Application Number:	11832073
Application Number:	11945868
Application Number:	11828935
Application Number:	11828519
Application Number:	11828507
Application Number:	11828503
Application Number:	11782565
Application Number:	11782576
Application Number:	11782563
Application Number:	11782554
Application Number:	11828500
Application Number:	13485326
Application Number:	11828494
Application Number:	11828601
Application Number:	11828605
Application Number:	11828486
Application Number:	11828490
Application Number:	11828551
Application Number:	11828556
Application Number:	11828625
Application Number:	12132173
Application Number:	13566193

Property Type	Number
Application Number:	11931760
Application Number:	12343914
Application Number:	13932917
Application Number:	12343825
Application Number:	12341976
Application Number:	11853744
Application Number:	11853747
Application Number:	11853761
Application Number:	11853758
Application Number:	11853753
Application Number:	11853749
Application Number:	14618812
Application Number:	11853746
Application Number:	11853737
Application Number:	11853742
Application Number:	11853740
Application Number:	11853736
Application Number:	11852915
Application Number:	11852957
Application Number:	11852954
Application Number:	11852956
Application Number:	11852984
Application Number:	11852963
Application Number:	11854433
Application Number:	11854408
Application Number:	11854417
Application Number:	11854442
Application Number:	11929252
Application Number:	11929373
Application Number:	11930390
Application Number:	11930601
Application Number:	11871983
Application Number:	14030188
Application Number:	14190502
Application Number:	11871985
Application Number:	11871986
Application Number:	11871988
Application Number:	11871989

Property Type	Number
Application Number:	11959060
Application Number:	11960471
Application Number:	11960496
Application Number:	11960526
Application Number:	11960560
Application Number:	11960574
Application Number:	11960585
Application Number:	11960869
Application Number:	11960951
Application Number:	11960984
Application Number:	09855813
Application Number:	09925120
Application Number:	13230830
Application Number:	09972424
Application Number:	14848019
Application Number:	09978144
Application Number:	10033401
Application Number:	14058393
Application Number:	09978170
Application Number:	13305782
Application Number:	10132968
Application Number:	10386585
Application Number:	10393599
Application Number:	10396229
Application Number:	10918721
Application Number:	10939669
Application Number:	12494091
Application Number:	11021096
Application Number:	11030422
Application Number:	11876181
Application Number:	12797664
Application Number:	11030692
Application Number:	12686090
Application Number:	13890744
Application Number:	13195699
Application Number:	15347548
Application Number:	10124064
Application Number:	10124583

Property Type	Number
Application Number:	13487074
Application Number:	10124190
Application Number:	15418053
Application Number:	10215904
Application Number:	14496011
Application Number:	14496022
Application Number:	14874430
Application Number:	10339012
Application Number:	12041952
Application Number:	12042098
Application Number:	12042185
Application Number:	12042226
Application Number:	12042248
Application Number:	12186435
Application Number:	12269811
Application Number:	12047406
Application Number:	12060944
Application Number:	12060973
Application Number:	12112604
Application Number:	12132122
Application Number:	12241366
Application Number:	12241323
Application Number:	12241335
Application Number:	12241354
Application Number:	15213455
Application Number:	16240940
Application Number:	17027264
Application Number:	12241466
Application Number:	12241545
Application Number:	12241577
Application Number:	12436695
Application Number:	12200868
Application Number:	12200905
Application Number:	12200863
Application Number:	12200886
Application Number:	15148219
Application Number:	12210850
Application Number:	12210867

Property Type	Number
Application Number:	12266829
Application Number:	12264435
Application Number:	12203760
Application Number:	12482167
Application Number:	12482179
Application Number:	12244684
Application Number:	12615880
Application Number:	12615915
Application Number:	13554022
Application Number:	13964940
Application Number:	11936786
Application Number:	13171108
Application Number:	14041192
Application Number:	14814971
Application Number:	12276261
Application Number:	13411507
Application Number:	13411510
Application Number:	14804094
Application Number:	12612994
Application Number:	12717808
Application Number:	12717812
Application Number:	12649153
Application Number:	12766811
Application Number:	12766813
Application Number:	12795523
Application Number:	12779871
Application Number:	12797412
Application Number:	12797570
Application Number:	12502185
Application Number:	13403716
Application Number:	14296156
Application Number:	13080551
Application Number:	12773782
Application Number:	12840029
Application Number:	12879957
Application Number:	12878827
Application Number:	12878822
Application Number:	12881006

Property Type	Number
Application Number:	12881054
Application Number:	12881043
Application Number:	12881016
Application Number:	12881027
Application Number:	15229610
Application Number:	12647895
Application Number:	13921940
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Application Number:	13031105
Application Number:	13031113
Application Number:	12789836
Application Number:	13111221
Application Number:	15240387
Application Number:	13111239
Application Number:	12773795
Application Number:	13111249
Application Number:	15671033
Application Number:	13609708
Application Number:	13031119
Application Number:	12947518
Application Number:	12895645
Application Number:	16029782
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Application Number:	13294146
Application Number:	14812824
Application Number:	13183246
Application Number:	14334516
Application Number:	13039118
Application Number:	13024277
Application Number:	12957221
Application Number:	12877767
Application Number:	13682700
Application Number:	15240816
Application Number:	13224206
Application Number:	14191276

Property Type	Number
Application Number:	14191288
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Application Number:	16239619
Application Number:	17026813
Application Number:	13413822
Application Number:	13413815
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Application Number:	13626749
Application Number:	14590938
Application Number:	13611998
Application Number:	13529040
Application Number:	13803395
Application Number:	15692649
Application Number:	15704333
Application Number:	16296370
Application Number:	13529048
Application Number:	13285917
Application Number:	14188558
Application Number:	14561088
Application Number:	14849499
Application Number:	13285931
Application Number:	13285955
Application Number:	13285967
Application Number:	13340033
Application Number:	13270115
Application Number:	15620879
Application Number:	16296914
Application Number:	13611640
Application Number:	14294368
Application Number:	14137886
Application Number:	13492517
Application Number:	13557111
Application Number:	13751807

Property Type	Number
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Application Number:	16253464
Application Number:	13452716
Application Number:	13370170
Application Number:	13494853
Application Number:	13923996
Application Number:	14858944
Application Number:	13832790
Application Number:	13612367
Application Number:	14592828
Application Number:	17060444
Application Number:	14592829
Application Number:	14592835
Application Number:	11193856
Application Number:	13484756
Application Number:	13829916
Application Number:	15384124
Application Number:	14587920
Application Number:	14592825
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Application Number:	16040735
Application Number:	16379494
Application Number:	14660868
Application Number:	13612389
Application Number:	14586210
Application Number:	15410247
Application Number:	16038651
Application Number:	16376844
Application Number:	14207354
Application Number:	13682704
Application Number:	14207345
Application Number:	16028680
Application Number:	13670137
Application Number:	13832680
Application Number:	13832745
Application Number:	16750618
Application Number:	14575934

Property Type	Number
Application Number:	14753928
Application Number:	14200565
Application Number:	13767499
Application Number:	14102431
Application Number:	14106242
Application Number:	13743230
Application Number:	15959748
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Application Number:	14587930
Application Number:	15421059
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Application Number:	14137237
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Application Number:	15426431
Application Number:	16021278
Application Number:	13832924
Application Number:	13832874
Application Number:	16048918
Application Number:	16952702
Application Number:	14587700
Application Number:	15445090
Application Number:	14871628
Application Number:	13803516
Application Number:	15966154
Application Number:	14992624
Application Number:	14592838
Application Number:	16430855
Application Number:	14488015
Application Number:	13966982
Application Number:	13967011
Application Number:	14693663
Application Number:	15887197
Application Number:	14590893
Application Number:	15444887
Application Number:	15789696
Application Number:	14586141

Property Type	Number
Application Number:	14592142
Application Number:	14454653
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Application Number:	14586245
Application Number:	14589831
Application Number:	15950555
Application Number:	15440272
Application Number:	14551404
Application Number:	14694513
Application Number:	15270065
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Application Number:	14682968
Application Number:	15376522
Application Number:	16672622
Application Number:	14871944
Application Number:	14630582
Application Number:	14880871
Application Number:	14587496
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Application Number:	29497990
Application Number:	29497996
Application Number:	29497998
Application Number:	15438469
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Application Number:	17350348
Application Number:	29502633
Application Number:	14586777
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Property Type	Number
Application Number:	15861331
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Application Number:	14563460
Application Number:	14586804
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Application Number:	16556712
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Application Number:	16774811
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Application Number:	17326532
Application Number:	15462761
Application Number:	14676020
Application Number:	16437341
Application Number:	15476282
Application Number:	15441172
Application Number:	16238382
Application Number:	14983199
Application Number:	14983214
Application Number:	15901085
Application Number:	16735515
Application Number:	17218289
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Application Number:	16180150
Application Number:	15446424
Application Number:	16006407
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Application Number:	14635767
Application Number:	14981530
Application Number:	17326119

Property Type	Number
Application Number:	14981551
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Application Number:	14805564
Application Number:	15366122
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Application Number:	14734329
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Application Number:	17334411
Application Number:	15455919
Application Number:	17092962
Application Number:	14982920
Application Number:	16773128
Application Number:	17175721
Application Number:	15442044
Application Number:	15461680
Application Number:	16106884
Application Number:	17015989
Application Number:	15433301
Application Number:	17063693
Application Number:	15454798
Application Number:	16418335
Application Number:	15370590
Application Number:	15426146
Application Number:	15656859

Property Type	Number
Application Number:	15460831
Application Number:	16249091
Application Number:	14982988
Application Number:	14982271
Application Number:	09950511
Application Number:	10116266
Application Number:	10387177
Application Number:	12643736
Application Number:	10119202
Application Number:	10215234
Application Number:	09492725
Application Number:	09664940
Application Number:	10759766
Application Number:	10339918
Application Number:	09677524
Application Number:	09583058
Application Number:	09590417
Application Number:	09613938
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Application Number:	09587792
Application Number:	09613607
Application Number:	09711703
Application Number:	09781658
Application Number:	09734841
Application Number:	09559372
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Application Number:	11499636
Application Number:	09104713
Application Number:	11626707
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Application Number:	13418275
Application Number:	13470129
Application Number:	13705006
Application Number:	14804231

Property Type	Number
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Application Number:	12436706
Application Number:	13648635
Application Number:	14618948
Application Number:	11956138
Application Number:	12903125
Application Number:	13917078
Application Number:	15405805
Application Number:	11956162
Application Number:	13454489
Application Number:	14290441
Application Number:	14553813
Application Number:	11956171
Application Number:	14501560
Application Number:	16109232
Application Number:	16531442
Application Number:	11956186
Application Number:	13568873
Application Number:	14531370
Application Number:	16242254
Application Number:	11956194
Application Number:	15608650
Application Number:	16103242
Application Number:	12418576
Application Number:	14503516
Application Number:	15845471
Application Number:	17008550

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Fax Number: (800)914-4240

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Email: james.murray@wolterskluwer.com

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Address Line 2: SUITE 125

Address Line 4: COLUMBUS, OHIO 43219

NAME OF SUBMITTER:

DORIS KA

SIGNATURE:	/Doris Ka/
DATE SIGNED:	08/03/2021
Total Attachments: 65 source=09. Merlin - Patent Security Agreement (Bank)#page1.tif source=09. Merlin - Patent Security Agreement (Bank)#page2.tif source=09. Merlin - Patent Security Agreement (Bank)#page3.tif source=09. Merlin - Patent Security Agreement (Bank)#page4.tif source=09. Merlin - Patent Security Agreement (Bank)#page5.tif source=09. Merlin - Patent Security Agreement (Bank)#page6.tif source=09. Merlin - Patent Security Agreement (Bank)#page7.tif source=09. Merlin - Patent Security Agreement (Bank)#page8.tif source=09. Merlin - Patent Security Agreement (Bank)#page9.tif source=09. Merlin - Patent Security Agreement (Bank)#page10.tif source=09. Merlin - Patent Security Agreement (Bank)#page11.tif source=09. Merlin - Patent Security Agreement (Bank)#page12.tif source=09. Merlin - Patent Security Agreement (Bank)#page13.tif source=09. Merlin - Patent Security Agreement (Bank)#page14.tif source=09. Merlin - Patent Security Agreement (Bank)#page15.tif source=09. Merlin - Patent Security Agreement (Bank)#page16.tif source=09. Merlin - Patent Security Agreement (Bank)#page17.tif source=09. Merlin - Patent Security Agreement (Bank)#page18.tif source=09. Merlin - Patent Security Agreement (Bank)#page19.tif source=09. Merlin - Patent Security Agreement (Bank)#page20.tif source=09. Merlin - Patent Security Agreement (Bank)#page21.tif source=09. Merlin - Patent Security Agreement (Bank)#page22.tif source=09. Merlin - Patent Security Agreement (Bank)#page23.tif source=09. Merlin - Patent Security Agreement (Bank)#page24.tif source=09. Merlin - Patent Security Agreement (Bank)#page25.tif source=09. Merlin - Patent Security Agreement (Bank)#page26.tif source=09. Merlin - Patent Security Agreement (Bank)#page27.tif source=09. Merlin - Patent Security Agreement (Bank)#page28.tif source=09. Merlin - Patent Security Agreement (Bank)#page29.tif source=09. Merlin - Patent Security Agreement (Bank)#page30.tif source=09. Merlin - Patent Security Agreement (Bank)#page31.tif source=09. Merlin - Patent Security Agreement (Bank)#page32.tif source=09. Merlin - Patent Security Agreement (Bank)#page33.tif source=09. Merlin - Patent Security Agreement (Bank)#page34.tif source=09. Merlin - Patent Security Agreement (Bank)#page35.tif source=09. Merlin - Patent Security Agreement (Bank)#page36.tif source=09. Merlin - Patent Security Agreement (Bank)#page37.tif source=09. Merlin - Patent Security Agreement (Bank)#page38.tif source=09. Merlin - Patent Security Agreement (Bank)#page39.tif source=09. Merlin - Patent Security Agreement (Bank)#page40.tif source=09. Merlin - Patent Security Agreement (Bank)#page41.tif source=09. Merlin - Patent Security Agreement (Bank)#page42.tif source=09. Merlin - Patent Security Agreement (Bank)#page43.tif source=09. Merlin - Patent Security Agreement (Bank)#page44.tif	

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in recordable form releasing the collateral pledge, grant, lien and security interest in the Patent Collateral under this Patent Security Agreement.

SECTION 5. Counterparts. This Patent Security Agreement may be executed in any number of counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page to this Patent Security Agreement by facsimile or other electronic imaging (including in .pdf format) means shall be effective as delivery of a manually executed counterpart of this Patent Security Agreement. The words "delivery," "execution," "execute," "signed," "signature," and words of like import in or related to any document to be signed in connection with this Patent Security Agreement and the transactions contemplated hereby shall be deemed to include electronic signatures, the electronic matching of assignment terms and contract formations on electronic platforms approved by the Collateral Agent, or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable Law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act.

SECTION 6. GOVERNING LAW. THIS PATENT SECURITY AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.

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PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT (this “Patent Security Agreement”) is entered into as of August 2, 2021, by and among DIRECTV, LLC (“Grantor”) and Credit Suisse AG, Cayman Islands Branch, in its capacity as collateral agent for the Secured Parties (in such capacity, together with its successors and permitted assigns, the “Collateral Agent”).

PRELIMINARY STATEMENTS

WHEREAS, Grantor is party to a Pledge and Security Agreement, dated as of August 2, 2021 (as it may be from time to time amended, restated, amended and restated, replaced, supplemented or otherwise modified, the “Security Agreement”), in favor of the Collateral Agent pursuant to which Grantor granted to the Secured Parties a security interest in and continuing lien on, certain intellectual property rights owned by the Grantor and pursuant to which Grantor is required to execute and deliver this Patent Security Agreement;

NOW, THEREFORE, in consideration of the premises and to induce the Lenders and the Collateral Agent, for the benefit of the Secured Parties, to enter into the Credit Agreement, and to induce the Lenders to make their respective extensions of credit to the Borrower thereunder, Grantor hereby agrees with the Collateral Agent as follows:

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

SECTION 2. Grant of Security Interest in Patent Collateral. Grantor hereby pledges and grants to the Collateral Agent for itself and the ratable benefit of the Secured Parties a continuing lien on and security interest in and to all of its right, title and interest in, to and under: (a) all Patents owned by or exclusively licensed to Grantor, including but not limited to the Patents listed on Schedule I attached hereto; (b) all reissues, divisions, continuations, continuations-in-part, extensions, renewals and reexaminations thereof; (c) all rights corresponding thereto throughout the world; (d) all inventions, designs and improvements described herein; (e) all rights to sue for past, present and future infringements thereof; (f) all licenses, claims, damages and proceeds of suit arising therefrom and (g) all Proceeds of the foregoing, including, without limitation, licenses, royalties, income, payments, claims, damages and proceeds of suit (collectively, the “Patent Collateral”). Notwithstanding the foregoing or anything herein to the contrary, in no event shall the “Patent Collateral” include, or the security interests attach to, any Excluded Asset.

SECTION 3. Security Agreement. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to the Collateral Agent pursuant to the Security Agreement, and should not be deemed to grant a broader security interest in the Patent Collateral than what is granted by the Grantor to the Collateral Agent in the Security Agreement. Grantor hereby acknowledges and affirms that the rights and remedies of the Collateral Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Security Agreement (and are expressly subject to the terms and conditions thereof), the terms and provisions of which are incorporated by reference as if fully set forth herein. In the event that any provision of this Patent Security Agreement is deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall control.

SECTION 4. Termination. Upon the termination of the Security Agreement in accordance with its terms, the Collateral Agent shall execute, acknowledge and deliver to Grantor an instrument in writing

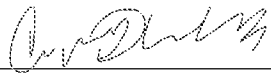
IN WITNESS WHEREOF, Grantor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

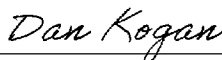
DIRECTV, LLC

By: 
Name: Johnathan Rutledge
Title: Treasurer

Accepted and Agreed:

CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH
as Collateral Agent

By: 
Name: Vipul Dhadda
Title: Authorized Signatory

By: 
Name: Daniel Kogan
Title: Authorized Signatory

SCHEDULE I
to
PATENT SECURITY AGREEMENT

UNITED STATES ISSUED PATENTS AND PATENT APPLICATIONS:

Owner(s)	Title	Patent Application Number	Application Date	Expiration Date
DIRECTV, LLC	Intrusion Detection System For Secure Fiber Optics	07/228793	7/29/1988	11/16/2021
DIRECTV, LLC	Overlapping Subarray Patch Antenna System	09/973269	10/5/2001	10/5/2021
DIRECTV, LLC	Method And System For Maximizing Satellite Constellation Coverage	08/949988	10/14/1997	1/21/2022
DIRECTV, LLC	Method And Apparatus For Filtering Data Displayed In An Electronic Television Program Guide	10/101799	3/20/2002	2/22/2031
DIRECTV, LLC	Secure Storage And Replay Of Media Programs Using A Hard-Paired Receiver And Storage Device	09/620833	7/21/2000	7/15/2025
DIRECTV, LLC	Super Encrypted Storage And Retrieval Of Media Programs In A Hard-Paired Receiver And Storage Device	09/621476	7/21/2000	3/11/2022
DIRECTV, LLC	Super Encrypted Storage And Retrieval Of Media Programs With Smartcard Generated Keys	09/620772	7/21/2000	6/7/2022
DIRECTV, LLC	Method And Apparatus For Determining A Direct-To-Home Satellite Receiver Multi-Switch Type	10/003545	10/24/2001	10/24/2021
DIRECTV, LLC	Dynamic Cell Cdma Code Assignment System And Method	09/735861	12/12/2000	2/4/2023
DIRECTV, LLC	Architecture Utilizing Frequency Reuse In Accommodating User-Link And Feeder-Link Transmissions	09/612465	7/7/2000	10/5/2021
DIRECTV, LLC	Video On Demand Pay Per View Services With Unmodified Conditional Access Functionality	09/620832	7/21/2000	3/11/2022

Owner(s)	Title	Patent Application Number	Application Date	Expiration Date
DIRECTV, LLC	Method And Apparatus For Facilitating Reverse Playback	09/666257	9/21/2000	3/9/2023
DIRECTV, LLC	Micro Cell Architecture For Mobile User Tracking Communication System	09/947422	9/5/2001	6/18/2021
DIRECTV, LLC	Resource Allocation Method For Multi-Platform Communication System	09/587960	6/6/2000	8/1/2022
DIRECTV, LLC	System Employing Data Compression Transparent Mode With Compression Parameter Negotiation	09/810769	3/16/2001	10/1/2022
DIRECTV, LLC	Rapid User Acquisition By A Ground-Based Beamformer	09/652862	8/31/2000	9/25/2023
DIRECTV, LLC	Application Of Complex Codes To Maximize User Link Utilization	09/945483	8/31/2001	3/27/2024
DIRECTV, LLC	Stratospheric-Based Communication System For Mobile Users Using Additional Phased Array Elements For Interference Rejection	09/661725	9/14/2000	1/28/2025
DIRECTV, LLC	Stratospheric-Based Communication System For Mobile Users Using Additional Phased Array Elements For Interference Rejection	11/928577	10/30/2007	3/27/2022
DIRECTV, LLC	Concurrent Communications Between A User Terminal And Multiple Stratospheric Transponder Platforms	09/655498	9/5/2000	5/11/2022
DIRECTV, LLC	Integrating Coverage Areas Of Multiple Transponder Platforms	09/649355	8/28/2000	8/2/2022
DIRECTV, LLC	Resource Assignment System And Method For Determining The Same	09/661726	9/14/2000	10/18/2021
DIRECTV, LLC	System For Obtaining Data Regarding Customer Use Of Interactive Television	09/732498	12/6/2000	1/10/2024
DIRECTV, LLC	Hybrid Satellite Communications System	09/721353	11/21/2000	6/3/2023
DIRECTV, LLC	Method And Apparatus For Reducing Earth Station Interference From Non-Gso And Terrestrial Sources	09/992992	11/6/2001	11/9/2021

Owner(s)	Title	Patent Application Number	Application Date	Expiration Date
DIRECTV, LLC	System And Method For Media Inserts In A Media Distribution System	13/545592	7/10/2012	10/16/2021
DIRECTV, LLC	Method And Apparatus For Encrypting Media Programs For Later Purchase And Viewing	09/960824	9/21/2001	10/7/2024
DIRECTV, LLC and NDS Limited	Method And Apparatus For Controlling Paired Operation Of A Conditional Access Module And An Integrated Receiver And Decoder	10/490261	9/20/2002	5/12/2026
DIRECTV, LLC	Method And Apparatus For Encrypting Media Programs For Later Purchase And Viewing	12/172901	7/14/2008	9/21/2021
DIRECTV, LLC	Adaptive Variable Bit Rate Audio Compression Encoding	11/434537	5/15/2006	3/20/2022
DIRECTV, LLC	Method And Apparatus For Minimizing Conditional Access Information Overhead While Ensuring Conditional Access Information Reception In Multi-Tuner Receivers	10/302416	11/21/2002	11/21/2022
DIRECTV, LLC	Simplified Interactive User Interface For Multi-Video Channel Navigation	09/709835	11/8/2000	12/31/2021
DIRECTV, LLC	Simplified Interactive User Interface For Multi-Video Channel Navigation	10/731768	12/8/2003	12/31/2021
DIRECTV, LLC	Audio/Video Satellite Broadcast Network	10/464228	6/18/2003	11/16/2027
DIRECTV, LLC	Modified Electronic Program Guide	10/640111	8/13/2003	11/1/2032
DIRECTV, LLC	Simultaneous Tuning Of Multiple Satellite Frequencies	09/870323	5/30/2001	8/7/2024
DIRECTV, LLC	Simultaneous Tuning Of Multiple Satellite Frequencies	11/820956	6/21/2007	9/12/2022
DIRECTV, LLC	Sample Generation Method And System For Digital Simulation Processes	12/275498	11/21/2008	11/30/2025
DIRECTV, LLC	Exploitation Of Null Packets In Packetized Digital Television Systems	10/038174	1/3/2002	6/12/2024
DIRECTV, LLC	Satellite Twta On-Line Non-Linearity Measurement	10/165710	6/7/2002	6/29/2026

Owner(s)	Title	Patent Application Number	Application Date	Expiration Date
DIRECTV, LLC	Comprehensive Network Monitoring At Broadcast Satellite Sites Located Outside Of The Broadcast Service Area	10/291165	11/8/2002	11/8/2022
DIRECTV, LLC	Comprehensive Network Monitoring At Broadcast Satellite Sites Located Outside Of The Broadcast Service Area	11/222085	9/8/2005	1/25/2024
DIRECTV, LLC	Device And Method For Nodal Multiple Access Into Communications Channels	13/332978	12/21/2011	7/7/2022
DIRECTV, LLC	Device And Method For Nodal Multiple Access Into Communications Channels	14/257864	4/21/2014	5/22/2022
DIRECTV, LLC	Methodology For Mobile User Terminals In Broadband Systems	09/967616	9/28/2001	5/2/2023
DIRECTV, LLC	Multiple Link Internet Protocol Mobile Communications System And Method Therefor	09/735860	12/12/2000	9/29/2022
DIRECTV, LLC	Multiple Dynamic Connectivity For Satellite Communications Systems	09/839851	4/20/2001	9/7/2023
DIRECTV, LLC	Device Control Via Digitally Stored Program Content	09/878855	6/11/2001	2/13/2023
DIRECTV, LLC	Daypart Based Navigation Paradigm	09/818230	3/27/2001	11/6/2027
DIRECTV, LLC	Distribution Of Video Content Using Client To Host Pairing Of Integrated Receivers/Decoders	10/758865	1/16/2004	4/12/2025
DIRECTV, LLC	Distribution Of Video Content Using A Trusted Network Key For Sharing Content	10/758811	1/16/2004	1/16/2024
DIRECTV, LLC	Signal, Interference And Noise Power Measurement	10/236414	9/6/2002	3/6/2025
DIRECTV, LLC	Distribution Of Broadcast Content For Remote Decryption And Viewing	10/758818	1/16/2004	1/16/2024
DIRECTV, LLC	Multi-Processor Dvr	09/761202	1/17/2001	6/21/2023
DIRECTV, LLC	Dvr With Enhanced Functionality	09/837844	4/18/2001	4/24/2023
DIRECTV, LLC	Application Of Complex Codes To Maximize Feeder Link Utilization	09/967691	9/28/2001	1/25/2024

Owner(s)	Title	Patent Application Number	Application Date	Expiration Date
DIRECTV, LLC	System And Method For Managing Return Channel Bandwidth In A Two-Way Satellite System	09/783850	2/15/2001	5/31/2022
DIRECTV, LLC	Methods And Apparatus For Distributing Digital Content	10/441505	5/20/2003	11/21/2025
DIRECTV, LLC	Hidden Identification	11/862101	9/26/2007	10/5/2024
DIRECTV, LLC	Method And System For Utilizing Space-Time Codes For Block Fading Channels	10/011831	11/5/2001	4/26/2024
DIRECTV, LLC	Method And System For Utilizing Space-Time Codes For Block Fading Channels	11/504898	8/16/2006	11/5/2021
DIRECTV, LLC	Method And System For Utilizing Space-Time And Space-Frequency Codes For Multi-Input Multi-Output Frequency Selective Fading Channels	11/231691	9/21/2005	7/24/2022
DIRECTV, LLC	Space-Time Coded Ofdm System For Mmds Applications	12/011658	1/29/2008	1/24/2025
DIRECTV, LLC	Space-Time Trellis Code For Orthogonal Frequency Division Multiplexing (Ofdm)	10/011631	11/5/2001	1/30/2024
DIRECTV, LLC	Methods And Apparatus For Controlling Multiple Infrared Devices	11/880812	7/24/2007	11/17/2023
DIRECTV, LLC	Video Loop Apparatus And Methods For Use With Digital Television Systems	10/851838	5/21/2004	3/14/2034
DIRECTV, LLC	Time Shifted Targeted Advertisements Based Upon User Profiles	10/046841	1/15/2002	7/29/2029
DIRECTV, LLC	System And Method For Implementation Of The Yk Lossless Data Compression Algorithm Using A Modular Computational Architecture	09/999038	10/31/2001	10/31/2021
DIRECTV, LLC	Method And System For Utilizing Space-Time Overlays For Convolutionally Coded Systems	10/012950	11/7/2001	1/30/2024
DIRECTV, LLC	Advertising Spots For Fast-Forward Play	10/426732	4/30/2003	11/23/2029
DIRECTV, LLC	Multiple Basestation Communication System Having Adaptive Antennas	09/858956	5/15/2001	7/20/2022

Owner(s)	Title	Patent Application Number	Application Date	Expiration Date
DIRECTV, LLC	Multiple Basestation Communication System Having Adaptive Antennas	11/652946	1/12/2007	7/20/2022
DIRECTV, LLC	Stratospheric Platform Based Surface Vehicle Tracking And Mobile Data Network	10/017249	12/14/2001	7/19/2023
DIRECTV, LLC	Maximizing Power And Spectral Efficiencies For Layered And Conventional Modulations	12/207462	9/9/2008	5/19/2024
DIRECTV, LLC	Stratospheric Platforms Communication System Using Adaptive Antennas	09/858989	5/15/2001	2/28/2022
DIRECTV, LLC	Multi-Satellite Antenna Mast Alignment System	09/893268	6/27/2001	6/27/2021
DIRECTV, LLC	Method And Apparatus For Identifying Mpeg Picture Coding Types	09/976651	10/12/2001	4/4/2025
DIRECTV, LLC	Amplitude And Phase Matching For Layered Modulation Reception	10/532524	10/3/2003	3/13/2025
DIRECTV, LLC	Communication System Using Multiple Link Terminals	09/967753	9/28/2001	5/11/2022
DIRECTV, LLC	Copper Slug Pedestal For A Printed Circuit Board	09/882479	6/15/2001	6/15/2021
DIRECTV, LLC	Adaptation Of Dial-Up Devices To Broadband Facilities	12/410352	3/24/2009	3/12/2023
DIRECTV, LLC	Systems And Methods For Sharing Uplink Bandwidth Among Satellites In A Common Orbital Slot	10/305490	11/26/2002	6/26/2024
DIRECTV, LLC	Method Of Using Feedback From Consumer Terminals To Adaptively Control A Satellite System	10/947624	9/21/2004	9/21/2024
DIRECTV, LLC	Method And Apparatus For Adaptive Channel Selection	09/910161	7/20/2001	7/12/2024
DIRECTV, LLC	Method And Apparatus For Adaptive Channel Selection	11/867563	10/4/2007	5/29/2023
DIRECTV, LLC	Satellite Television Network And Near Real-Time Method For Downloading And	10/813948	3/31/2004	8/17/2028

Owner(s)	Title	Patent Application Number	Application Date	Expiration Date
	Verifying A Subscriber Remote Record Request			
DIRECTV, LLC	Satellite Television Network And Near Real-Time Method For Downloading And Verifying A Subscriber Remote Record Request	14/298615	6/6/2014	6/3/2024
DIRECTV, LLC	Automated Configuration Of A Virtual Private Network	09/938443	8/23/2001	9/13/2023
DIRECTV, LLC	Content Filtering Using Static Source Routes	10/040773	12/28/2001	9/3/2023
DIRECTV, LLC	Apparatus And Method For Providing A Globally Routable Bypass Ip Address To A Host Computer On A Private Network	09/996277	11/27/2001	1/9/2024
DIRECTV, LLC	System And Method For Automatic Configuration Of A Bi-Directional Ip Communication Device	09/996276	11/27/2001	6/9/2023
DIRECTV, LLC	Method, System And Computer Program Product For Aircraft Multimedia Distribution	09/978452	10/17/2001	8/25/2026
DIRECTV, LLC	Detecting And Logging Triggered Events In A Data Stream	14/285457	5/22/2014	6/22/2024
DIRECTV, LLC	System And Method For Provisioning Broadband Service In A Pppoe Network Using A List Of Stored Domain Names	09/929323	8/14/2001	12/5/2023
DIRECTV, LLC	Efficient Message Delivery In A Multi-Channel Uni-Directional Communications System	10/866291	6/10/2004	6/10/2024
DIRECTV, LLC	Video Bit Stream Test	10/900845	7/27/2004	1/18/2026
DIRECTV, LLC	Video Bit Stream Test	12/110689	4/28/2008	7/27/2024
DIRECTV, LLC	Preprocessing Signal Layers In A Layered Modulation Digital Signal System To Use Legacy Receivers	10/068039	2/5/2002	3/24/2023
DIRECTV, LLC	Method And Apparatus For Providing Higher Order Modulation That Is Backwards Compatible With Quaternary	10/142703	5/10/2002	1/31/2025

Owner(s)	Title	Patent Application Number	Application Date	Expiration Date
	Phase Shift Keying (Qpsk) Or Offset Quaternary Phase Shift Keying (Oqpsk)			
DIRECTV, LLC	Method And Apparatus For Providing Higher Order Modulation That Is Backwards Compatible With Quaternary Phase Shift Keying (Qpsk) Or Offset Quaternary Phase Shift Keying (Oqpsk)	11/879607	7/18/2007	6/25/2025
DIRECTV, LLC	System And Methodology For Video Compression	10/074765	2/12/2002	4/11/2035
DIRECTV, LLC	System And Methodology For Video Compression	15/866626	1/10/2018	2/12/2022
DIRECTV, LLC	System And Methodology For Video Compression	16/860506	4/28/2020	2/12/2022
DIRECTV, LLC	System And Methodology For Video Compression	17/342796	6/9/2021	
DIRECTV, LLC	Direct Broadcast Signal Distribution Methods	10/255344	9/25/2002	6/1/2026
DIRECTV, LLC	Asynchronous Configuration	10/085860	2/28/2002	2/28/2022
DIRECTV, LLC	Proactive Internet Searching Tool	10/051933	1/17/2002	1/10/2023
DIRECTV, LLC	Automatic Reporting Of Antenna Installation	10/827809	4/20/2004	1/21/2027
DIRECTV, LLC	System And Method For Evaluating Callback Functionality In A Satellite Television Network	10/444042	5/22/2003	5/30/2026
DIRECTV, LLC	System And Method For Evaluating Callback Functionality In A Satellite Television Network	12/075779	3/13/2008	8/22/2024
DIRECTV, LLC	Adaptive Error Correction	10/993656	11/19/2004	12/22/2025
DIRECTV, LLC	Adaptive Error Correction	12/966903	12/13/2010	11/19/2024
DIRECTV, LLC	Methods And Apparatus For Monitoring Compressed Bitstreams	10/425120	4/28/2003	6/28/2025
DIRECTV, LLC	Methods And Apparatus For Monitoring Compressed Bitstreams	12/105580	4/18/2008	6/28/2025

Owner(s)	Title	Patent Application Number	Application Date	Expiration Date
DIRECTV, LLC	Apparatus And Method For Processing Content Signals From Multiple Signal Sources	10/209165	7/31/2002	7/21/2027
DIRECTV, LLC	Method And System For Data Compression With Dictionary Pre-Load Of A Set Of Expected Character Strings	10/127643	4/22/2002	4/22/2022
DIRECTV, LLC	Method, System, Device And Computer Program Product For MPEG Variable Bit Rate (VBR) Video Traffic Classification Using A Nearest Neighbor Classifier	10/061867	2/1/2002	2/1/2022
DIRECTV, LLC	Audio-Video Synchronization For Digital Systems	10/079992	2/20/2002	10/20/2025
DIRECTV, LLC	Apparatus And Method For Preserving Routable Ip Addresses Using Arp Proxy	10/295431	11/15/2002	11/15/2022
DIRECTV, LLC	Risk-Time Protection Backup System	10/192963	7/10/2002	7/10/2022
DIRECTV, LLC	Method And Apparatus For Controlling Access To Custom Browser Functionality	15/211900	7/15/2016	1/20/2037
DIRECTV, LLC	Method And Apparatus For Controlling Access To Custom Browser Functionality	16/664874	10/27/2019	7/15/2036
DIRECTV, LLC	Method And Apparatus For Controlling Access To Custom Browser Functionality	17/347424	6/14/2021	
DIRECTV, LLC	Methods And Systems For Provisioning A User Profile On A Media Processor	15/245704	8/24/2016	1/20/2037
DIRECTV, LLC	Methods And Systems For Provisioning A User Profile On A Media Processor	16/532931	8/6/2019	
DIRECTV, LLC	Method To Insert Program Boundaries In Linear Video For Adaptive Bitrate Streaming	15/189202	6/22/2016	5/28/2037
DIRECTV, LLC	Method To Insert Program Boundaries In Linear Video For Adaptive Bitrate Streaming	17/143537	1/7/2021	
DIRECTV, LLC	Apparatus And Method For Providing Programming Information For Media Content To A Wearable Device	15/221014	7/27/2016	7/27/2036

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DIRECTV, LLC	Apparatus And Method For Providing Programming Information For Media Content To A Wearable Device	15/879147	1/24/2018	7/27/2036
DIRECTV, LLC	Method and Apparatus To Present Multiple Audio Content	15/219813	7/26/2016	8/30/2036
DIRECTV, LLC	Method And Apparatus To Present Multiple Audio Content	16/102026	8/13/2018	8/6/2036
DIRECTV, LLC	Method And Apparatus For Media Content Streaming And Reminder Notifications	15/445397	2/28/2017	2/28/2037
DIRECTV, LLC	Facilitating Mixed Service Use Of Bonded Satellite Transponders	15/365166	11/30/2016	3/20/2038
DIRECTV, LLC	Facilitating Mixed Service Use Of Bonded Satellite Transponders	16/238180	1/2/2019	11/30/2036
DIRECTV, LLC	Methods And Systems For Providing Multiple Video Content Streams	15/251059	8/30/2016	8/30/2036
DIRECTV, LLC	Methods And Systems For Providing Multiple Video Content Streams	16/011078	6/18/2018	8/30/2036
DIRECTV, LLC	Determining Ambient Noise In A Device Under Test Electromagnetic Compatibility Test Environment	15/217577	7/22/2016	7/28/2036
DIRECTV, LLC	Determining Ambient Noise In A Device Under Test Electromagnetic Compatibility Test Environment	16/149986	10/2/2018	7/22/2036
DIRECTV, LLC	Methods And Systems For Rendering Binaural Audio Content	15/250261	8/29/2016	8/29/2036
DIRECTV, LLC	Methods And Systems For Rendering Binaural Audio Content	15/879028	1/24/2018	8/29/2036
DIRECTV, LLC	Methods And Systems For Rendering Binaural Audio Content	16/159122	10/12/2018	8/29/2036
DIRECTV, LLC	Broadband Backup To Satellite-Based Set-Top Boxes	15/447171	3/2/2017	3/2/2037
DIRECTV, LLC	Method And System For Controlling A User Receiving Device Using Voice Commands	15/015848	2/4/2016	5/18/2036

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DIRECTV, LLC	Method And System For Controlling A User Receiving Device Using Voice Commands	15/876978	1/22/2018	2/4/2036
DIRECTV, LLC	Triplexer Signal Combiner	15/236927	8/15/2016	1/28/2037
DIRECTV, LLC	Scalable Calculation Of The Similarity Content Graph	15/625284	6/16/2017	1/27/2038
DIRECTV, LLC	Determining Recommended Media Programming From Sparse Consumption Data	15/289626	10/10/2016	8/23/2037
DIRECTV, LLC	Determining Recommended Media Programming From Sparse Consumption Data	16/292063	3/4/2019	
DIRECTV, LLC	Sports Recommender System Utilizing Content Based Filtering	15/596773	5/16/2017	5/16/2037
DIRECTV, LLC	Creating A Manifest File At A Time Of Creating Recorded Content	15/363416	11/29/2016	11/29/2036
DIRECTV, LLC	Distributed Storage And Processing Of Viewing Usage Data	10/339002	1/8/2003	6/17/2033
DIRECTV, LLC	Method And Apparatus For Tailoring Carrier Power Requirements According To Availability In Layered Modulation Systems	10/532582	10/15/2003	10/15/2023
DIRECTV, LLC	Reusable Application Software For Generating Interactive Television Applications	10/319046	12/13/2002	3/1/2027
DIRECTV, LLC	Digital Media Conditional Access System For Handling Digital Media Content	11/119712	5/2/2005	6/9/2027
DIRECTV, LLC	Secure Delivery Of Program Content Via A Removal Storage Medium	11/501985	8/10/2006	6/26/2032
DIRECTV, LLC	Secure Delivery Of Program Content Via A Removable Storage Medium	15/138150	4/25/2016	8/10/2026

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DIRECTV, LLC	System And Method For Persistent Storage Of Common User Information For Interactive Television Using A Centrally Located Repository	10/313780	12/5/2002	8/14/2026
DIRECTV, LLC	System And Method For Persistent Storage Of Common User Information For Interactive Television Using A Centrally Located Repository	12/939510	11/4/2010	12/13/2022
DIRECTV, LLC	Media Delivery Assurance In Broadcast Distribution Services	10/434352	5/8/2003	6/28/2027
DIRECTV, LLC	System And Method For Content Filtering Using Static Source Routes	10/295476	11/15/2002	9/3/2023
DIRECTV, LLC	System And Method For Content Filtering Using Static Source Routes	11/490685	7/21/2006	4/24/2024
DIRECTV, LLC	Receiver Interface With Multiple Access Cards	10/680862	10/7/2003	8/19/2033
DIRECTV, LLC	Feeder Link Configurations To Support Layered Modulation For Digital Signals	10/532631	10/20/2003	3/24/2023
DIRECTV, LLC	Feeder Link Configurations To Support Layered Modulation For Digital Signals	12/190526	8/12/2008	3/26/2026
DIRECTV, LLC	Feeder Link Configurations To Support Layered Modulation For Digital Signals	13/600883	8/31/2012	3/24/2023
DIRECTV, LLC	On-Screen User Interface Device	10/464312	6/18/2003	7/21/2026
DIRECTV, LLC	Antenna/Feed Alignment System For Reception Of Multibeam Dbs Signals	10/339949	1/10/2003	1/10/2023
DIRECTV, LLC	Audio Level Control For Compressed Audio	10/426664	4/30/2003	4/30/2023
DIRECTV, LLC	Collection And Correlation Over Time Of Private Viewing Usage Data	10/790465	3/1/2004	3/1/2024
DIRECTV, LLC	Video On Demand In A Broadcast Network	10/790466	3/1/2004	3/1/2024
DIRECTV, LLC	Method And Apparatus For Lipsync Measurement And Correction	11/784758	4/7/2007	2/10/2025

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DIRECTV, LLC	Automatic Measurement Of Audio Presence And Level By Direct Processing Of An Mpeg Data Stream	10/660952	9/12/2003	5/3/2026
DIRECTV, LLC	Automatic Measurement Of Audio Presence And Level By Direct Processing Of An Mpeg Data Stream	13/053019	3/21/2011	3/5/2025
DIRECTV, LLC	Hierarchical 8Psk Performance	12/176533	7/21/2008	7/1/2023
DIRECTV, LLC	Coherent Averaging For Measuring Traveling Wave Tube Amplifier Nonlinearity	10/962346	10/8/2004	7/31/2022
DIRECTV, LLC	System For Monitoring Direct Broadcast Wireless Signals	10/400726	3/26/2003	5/5/2026
DIRECTV, LLC	System For Monitoring Direct Broadcast Wireless Signals	12/077169	3/17/2008	12/17/2024
DIRECTV, LLC	Viewer Data Collection System And Method For Use In A Direct Broadcast Satellite Television Network	12/496467	7/1/2009	6/13/2023
DIRECTV, LLC	Equalizers For Layered Modulated And Other Signals	11/656662	1/22/2007	10/22/2023
DIRECTV, LLC	Equalizers For Layered Modulated And Other Signals	12/404253	3/13/2009	10/17/2022
DIRECTV, LLC	Estimating The Operating Point On A Non-Linear Traveling Wave Tube Amplifier	10/532509	10/17/2003	10/17/2023
DIRECTV, LLC	Personal Multimedia Device Video Format Conversion Across Multiple Video Formats	11/879306	7/17/2007	6/23/2023
DIRECTV, LLC	Equalization For Traveling Wave Tube Amplifier Nonlinearity Measurements	10/961579	10/8/2004	7/31/2022
DIRECTV, LLC	Multiprocessor Conditional Access Module And Method For Using The Same	10/791934	3/3/2004	4/25/2026
DIRECTV, LLC	Method And Apparatus For Verifying Memory Contents	10/792484	3/3/2004	1/23/2031
DIRECTV, LLC	System Architecture For Control And Signal Distribution On Coaxial Cable	11/097615	4/1/2005	3/21/2027

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DIRECTV, LLC	Television Interactive Gaming Having Local Storage Of Game Portal	10/687474	10/14/2003	3/16/2026
DIRECTV, LLC	Chassis Spring Finger Tortuous Path With Improved Manufacturability	10/607744	6/27/2003	12/16/2023
DIRECTV, LLC	Method Of Manufacturing A Chassis Assembly To Reduce Electromagnetic Interference	11/528229	9/27/2006	7/21/2024
DIRECTV, LLC	Method And System For Providing Digital Video Distribution	10/843766	5/12/2004	11/1/2030
DIRECTV, LLC	Method And Apparatus For Connecting Satellite Receiver Telephone Modems Over Coaxial Cable	11/205249	8/16/2005	7/6/2030
DIRECTV, LLC	Method And System For Kitting Smart Cards With A Shrink Wrap License	12/005217	12/26/2007	3/25/2024
DIRECTV, LLC	Automatic Software Update Detection And Flexible Installer For Set-Top Boxes	10/934606	9/2/2004	12/2/2027
DIRECTV, LLC	Automatic Software Update Detection And Flexible Installer For Set-Top Boxes	12/686219	1/12/2010	9/4/2025
DIRECTV, LLC	Smart Card Reader	10/723617	11/25/2003	3/26/2024
DIRECTV, LLC	Tri-Head Kakuka Feed For Single-Offset Dish Antenna	11/015705	12/17/2004	6/17/2025
DIRECTV, LLC	Tri-Head Kakuka Feed For Single-Offset Dish Antenna	11/712327	2/28/2007	6/17/2025
DIRECTV, LLC	Method And System For Providing Multi-Input-Multi-Output (Mimo) Downlink Transmission	10/849101	5/19/2004	2/5/2026
DIRECTV, LLC	Method And System For Providing Multi-Input-Multi-Output (Mimo) Downlink Transmission	12/363455	1/30/2009	2/5/2026
DIRECTV, LLC	Method And System For Providing Multi-Input-Multi-Output (Mimo) Downlink Transmission	13/566701	8/3/2012	6/25/2024
DIRECTV, LLC	Just In Time Delivery Of Entitlement Control Messages (Ecms) And Other	13/053100	3/21/2011	2/19/2026

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	Essential Data Elements For Television Programming			
DIRECTV, LLC	Code Design And Implementation Improvements For Low Density Parity Check Codes For Wireless Routers Using 802.11N Protocol	11/222084	9/8/2005	5/26/2027
DIRECTV, LLC	Code Design And Implementation Improvements For Low Density Parity Check Codes For Wireless Routers Using 802.11N Protocol	12/496443	7/1/2009	5/26/2027
DIRECTV, LLC	Code Design And Implementation Improvements For Low Density Parity Check Codes For Wireless Routers Using 802.11N Protocol	14/137665	12/20/2013	11/2/2025
DIRECTV, LLC	Methods And Apparatus To Select Tornado Error Correction Parameters	11/351760	2/10/2006	7/14/2027
DIRECTV, LLC	Methods And Apparatus To Select Tornado Error Correction Parameter	12/332052	12/10/2008	7/14/2027
DIRECTV, LLC	Methods And Apparatus To Test Receivers	11/376055	3/15/2006	8/17/2029
DIRECTV, LLC	Reducing Spectral Roll-Off Factors To Increase Spectral Efficiency	11/831821	7/31/2007	7/31/2027
DIRECTV, LLC	Adaptive Coding And Modulation For Spot-Beam Satellite Broadcast	11/376813	3/16/2006	5/27/2027
DIRECTV, LLC	Method And Apparatus For Increasing The Quality Of Service For Digital Video Services For Mobile Reception	11/305853	12/16/2005	12/27/2028
DIRECTV, LLC	Backwards-Compatible Frequency Translation Module For Satellite Video Delivery	11/097482	4/1/2005	7/30/2027
DIRECTV, LLC	Backwards-Compatible Frequency Translation Module For Satellite Video Delivery	13/212341	8/18/2011	4/1/2025
DIRECTV, LLC	Transponder Tuning And Mapping	11/097479	4/1/2005	3/19/2028
DIRECTV, LLC	Power Balancing Signal Combiner	11/097724	4/1/2005	9/27/2029
DIRECTV, LLC	Power Balancing Signal Combiner	14/042599	9/30/2013	4/1/2025

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DIRECTV, LLC	Automatic Level Control For Incoming Signals Of Different Signal Strengths	11/097480	4/1/2005	7/3/2027
DIRECTV, LLC	Signal Injection Via Power Supply	11/097481	4/1/2005	5/7/2030
DIRECTV, LLC	Narrow Bandwidth Signal Delivery System	11/097625	4/1/2005	9/22/2027
DIRECTV, LLC	Method And Apparatus For Controlling Handoffs In A Mobile System	11/320318	12/28/2005	6/15/2029
DIRECTV, LLC	Presentation Modes For Various Format Bit Streams	13/768116	2/15/2013	6/7/2027
DIRECTV, LLC	Digital Storage Media Command And Control Data Indexing	14/047932	10/7/2013	6/18/2027
DIRECTV, LLC	Network Fraud Prevention Via Registration And Verification	11/219418	9/2/2005	8/23/2028
DIRECTV, LLC	Network Fraud Prevention Via Registration And Verification	13/093642	4/25/2011	5/22/2026
DIRECTV, LLC	Remote Control Mode On-Screen Displays And Methods For Producing The Same	11/346499	2/2/2006	6/11/2031
DIRECTV, LLC	Antenna Pointing Aid	11/274771	11/15/2005	11/15/2025
DIRECTV, LLC	Mosaic Channel Video Stream With Interactive Services	11/513992	8/31/2006	4/28/2027
DIRECTV, LLC	Mosaic Channel Video Stream With Interactive Services	13/278872	10/21/2011	8/31/2026
DIRECTV, LLC	Methods And Apparatuses For Determining Scrambling Codes For Signal Transmission	11/510244	8/25/2006	4/6/2029
DIRECTV, LLC	Administrative Tool For Video Programming	11/509929	8/25/2006	10/25/2028
DIRECTV, LLC	Multiple Dwelling Unit Satellite Television Delivery System	11/523218	9/18/2006	6/30/2027
DIRECTV, LLC	Multiple Dwelling Unit Satellite Television Delivery System	12/846699	7/29/2010	9/18/2026
DIRECTV, LLC	Secure Content Transfer Systems And Methods To Operate The Same	11/434404	5/15/2006	5/4/2028

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DIRECTV, LLC	Secure Content Transfer Systems And Methods To Operate The Same	14/321436	7/1/2014	9/23/2026
DIRECTV, LLC	Secure Content Transfer Systems And Methods To Operate The Same	15/724918	10/4/2017	11/15/2026
DIRECTV, LLC	Secure Content Transfer Systems And Methods To Operate The Same	17/301722	4/12/2021	
DIRECTV, LLC	Methods And Apparatus To Conditionally Authorize Content Delivery At Receivers In Pay Delivery Systems	11/434437	5/15/2006	5/15/2026
DIRECTV, LLC	Methods And Apparatus To Provide Content On Demand In Content Broadcast Systems	11/433969	5/15/2006	3/6/2027
DIRECTV, LLC	Methods And Apparatus To Provide Content On Demand In Content Broadcast Systems	13/179433	7/8/2011	5/15/2026
DIRECTV, LLC	Methods And Apparatus To Provide Content On Demand In Content Broadcast Systems	15/339559	10/31/2016	5/15/2026
DIRECTV, LLC	Method And System For Securely Providing And Storing Content In A Multiple Dwelling Unit System	11/863041	9/27/2007	2/19/2030
DIRECTV, LLC	Method And System For Securely Providing And Storing Content In A Multiple Dwelling Unit System	13/967253	8/14/2013	9/27/2027
DIRECTV, LLC	Reconfigurable Notched Spectrum For Wireless Data Transmission	11/523382	9/18/2006	6/13/2029
DIRECTV, LLC	Reconfigurable Notched Spectrum For Wireless Data Transmission	13/964997	8/12/2013	2/11/2027
DIRECTV, LLC	Methods And Apparatus To Conditionally Authorize Content Delivery At Content Servers In Pay Delivery Systems	11/434538	5/15/2006	5/15/2026
DIRECTV, LLC	Triple Band Combining Approach To Satellite Signal Distribution	11/546116	10/11/2006	6/5/2029
DIRECTV, LLC	Single Local Oscillator Sharing In Multi-Band Ka-Band Lnbs	11/546118	10/11/2006	12/7/2029

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DIRECTV, LLC	Alignment Method For Multi-Satellite Consumer Receiver Antennas	11/545846	10/11/2006	10/11/2026
DIRECTV, LLC	Ka/Ku Antenna Alignment	11/545845	10/11/2006	10/11/2026
DIRECTV, LLC	Ka/Ku Antenna Alignment	12/634530	12/9/2009	5/30/2027
DIRECTV, LLC	Dynamic Current Sharing In Ka/Ku Lnb Design	11/546689	10/12/2006	3/20/2027
DIRECTV, LLC	Infrastructure For Interactive Television Applications	11/803649	5/15/2007	12/16/2026
DIRECTV, LLC	Command Control And Communications With Intelligent Antennas	11/431251	5/10/2006	4/24/2027
DIRECTV, LLC	Command, Control And Communications With Intelligent Antennas	12/624018	11/23/2009	4/24/2027
DIRECTV, LLC	Method And System For File Sharing Between A Group Of User Devices Using Obtained Permissions	11/786215	4/11/2007	10/22/2029
DIRECTV, LLC	Method And System For Using A Website To Perform A Remote Action On A Set Top Box With A Secure Authorization	11/786136	4/11/2007	10/18/2027
DIRECTV, LLC	Method And System For Using A Website To Perform A Remote Action On A Set Top Box With A Secure Authorization	13/737890	1/9/2013	4/11/2027
DIRECTV, LLC	Method And Apparatus For File Sharing Between A Group Of User Devices With Separately Sent Crucial Portions And Non-Crucial Portions	11/786100	4/11/2007	7/15/2029
DIRECTV, LLC	Method And Apparatus For File Sharing Between A Group Of User Devices With Separately Sent Crucial Portions And Non-Crucial Portions	13/012656	1/24/2011	4/11/2027
DIRECTV, LLC	Method And Apparatus For File Sharing Between A Group Of User Devices With Crucial Portions Sent Via Satellite And Non-Crucial Portions Sent Using A Peer-To-Peer Network	11/786214	4/11/2007	3/6/2029
DIRECTV, LLC	Method And Apparatus For File Sharing Of Missing Content Between A Group Of User Devices In A Peer-To-Peer Network	11/876832	10/23/2007	10/21/2029

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DIRECTV, LLC	Method And Apparatus For File Sharing Of Missing Content Between A Group Of User Devices In A Peer-To-Peer Network	13/721655	12/20/2012	10/3/2028
DIRECTV, LLC	Method And System For Providing Content To A Content Distribution System Suitable For A Multiple Dwelling Unit Using An Authorization List	11/862883	9/27/2007	10/11/2029
DIRECTV, LLC	Oval Satellite Receive Antenna	29/253323	2/3/2006	8/25/2023
DIRECTV, LLC	Elliptical Satellite Receive Antenna	29/253322	2/3/2006	8/25/2023
DIRECTV, LLC	Set Top Box	29/251084	1/4/2006	12/25/2021
DIRECTV, LLC	Method And System For Moving And Playing Content From Home-Based System To Mobile System	11/593711	11/7/2006	8/31/2033
DIRECTV, LLC	Method And System For Providing A Predeactivation Warning In A System Having A Conditional Access Authorization Expiration In A Mobile Receiving Device	11/638202	12/13/2006	6/12/2031
DIRECTV, LLC	SMATV Headend Using IP Transport Stream Input And Method For Operating The Same	11/930745	10/31/2007	10/16/2028
DIRECTV, LLC	Customizable User Interface For External Devices	11/475743	6/27/2006	5/19/2028
DIRECTV, LLC	Set Top Box	29/251080	1/4/2006	1/8/2022
DIRECTV, LLC	Set Top Box	29/251082	1/4/2006	1/1/2022
DIRECTV, LLC	Interactive Mosaic Channel Video Stream With Additional Programming Sources	11/701151	2/1/2007	2/1/2027
DIRECTV, LLC	Apparatus For Mounting A Satellite Antenna In A Vehicle	11/595315	11/10/2006	2/4/2029
DIRECTV, LLC	Apparatus For Mounting A Satellite Antenna In A Trunk Of A Vehicle	12/913706	10/27/2010	11/10/2026
DIRECTV, LLC	Blind Identification Of Advanced Modulation And Coding Modes	11/672461	2/7/2007	10/2/2028

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DIRECTV, LLC	Blind Identification Of Advanced Modulation And Coding Modes	12/719098	3/8/2010	2/7/2027
DIRECTV, LLC	Amalgamation Of User Data For Geographical Trending	11/707496	2/16/2007	12/25/2027
DIRECTV, LLC	Dynamic Determination Of Presentation Of Multiple Video Cells In An On-Screen Display	14/299234	6/9/2014	3/9/2027
DIRECTV, LLC	Television Advertisement Monitoring System	12/172126	7/11/2008	8/17/2029
DIRECTV, LLC	Television Advertisement Monitoring System	13/492656	6/8/2012	7/11/2028
DIRECTV, LLC	Television Advertisement Monitoring System	14/298584	6/6/2014	1/19/2029
DIRECTV, LLC	Television Advertisement Monitoring System	15/242305	8/19/2016	7/11/2028
DIRECTV, LLC	Audio Video Timing Measurement And Synchronization	11/529941	9/29/2006	2/10/2030
DIRECTV, LLC	Method For Suppression Of Ofdm Energy Spectral Density For Minimization Of Out Of Band Emission Or Utilization Of Fractured Spectrum	11/824723	7/2/2007	8/9/2029
DIRECTV, LLC	Method And System For Securely Providing Content To A Portable Media Player Device	11/603632	11/22/2006	12/26/2029
DIRECTV, LLC	Method And System For Providing Content To A Portable Media Player Device And Maintaining Licensing Rights	11/603879	11/22/2006	12/26/2029
DIRECTV, LLC	Method And System For Enabling Transfer Of Content Between A Storage Device And A Portable Media Player Device	11/603743	11/22/2006	8/18/2030
DIRECTV, LLC	Method And Apparatus For Providing Emergency Information To A Mobile Receiving Device	11/595393	11/10/2006	5/31/2026
DIRECTV, LLC	Method And Apparatus For Controlling A Mobile Device Beyond An Area Of Interest Boundary	11/545278	10/10/2006	11/21/2032

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DIRECTV, LLC	Method And Apparatus For Providing Preauthorization For A Mobile Receiving Device To Access Wireless Networks	11/656758	1/22/2007	6/11/2028
DIRECTV, LLC	Method And Apparatus For Providing Preauthorization For A Mobile Receiving Device To Access Wireless Networks	13/439450	4/4/2012	1/22/2027
DIRECTV, LLC	Mobile Receiver Solutions For Accessing Broadband Video-On-Demand Services	11/595394	11/10/2006	4/15/2029
DIRECTV, LLC	Method And System For Updating File Segments Of Content On A Portable Media Player Device	11/603878	11/22/2006	7/26/2034
DIRECTV, LLC	Method And System For Targeted Marketing To A Portable Media Player Device Owner	11/603768	11/22/2006	11/22/2026
DIRECTV, LLC	Mosaic Channel Video Stream With Interactive Services	12/098747	4/7/2008	9/14/2028
DIRECTV, LLC	Passive System And Method To Determine Distortion In An Rf Satellite Chain	11/586414	10/25/2006	6/6/2029
DIRECTV, LLC	Passive System And Method To Equalize Distortion In An Rf Satellite Chain	11/586383	10/25/2006	12/23/2030
DIRECTV, LLC	Method And Apparatus For Receiving Dual Band Signals From A Common Orbital Location With An Outdoor Unit Using A Frequency Selective Subreflector And Additional Antenna Feed	11/602823	11/21/2006	6/13/2028
DIRECTV, LLC	Method And Apparatus For Receiving Dual Band Signals From An Orbital Location Using An Outdoor Unit With A Subreflector And Additional Antenna Feed	11/602821	11/21/2006	6/13/2028
DIRECTV, LLC	Mosaic Channel Video Stream With Personalized Interactive Services	11/833915	8/3/2007	8/3/2027
DIRECTV, LLC	Method And Apparatus Of Verifying That Requested Content Matches Content To Be Downloaded	12/079579	3/27/2008	7/18/2030
DIRECTV, LLC	Method And Apparatus For Generating An Overlay Code For A Set Top Box From An External Device	11/841531	8/20/2007	12/29/2030

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DIRECTV, LLC	Antenna Hub Configuration	11/529932	9/29/2006	9/29/2026
DIRECTV, LLC	Method And System For Broadcasting In A Satellite Communication System When Switching Between A Primary Site And A Diverse Site	11/529915	9/29/2006	10/15/2028
DIRECTV, LLC	Method And System For Determining Delays Between A Primary Site And Diverse Site In A Satellite Communication System	11/529949	9/29/2006	9/29/2026
DIRECTV, LLC	Method And Apparatus For Connecting Primary And Diverse Sites In A Satellite Communication System	11/529950	9/29/2006	9/29/2026
DIRECTV, LLC	Method And System For Operating A Satellite Communication System With Regional Redundant Sites And A Central Site	11/529840	9/29/2006	9/29/2026
DIRECTV, LLC	Method And System For Determining Attenuation And Controlling Uplink Power In A Satellite Communication System	11/529918	9/29/2006	9/29/2026
DIRECTV, LLC	Method And System For Receiving A Beacon Signal In A Satellite Communication System	11/540037	9/29/2006	9/29/2026
DIRECTV, LLC	Optimized Uplink Efficiencies For Transmission Of Satellite Data	12/421485	4/9/2009	10/11/2027
DIRECTV, LLC	Method And Apparatus For Warning A Mobile User Approaching A Boundary Of An Area Of Interest	11/825263	7/5/2007	11/6/2030
DIRECTV, LLC	Method And System For Converting Content Into Multiple Formats	12/150153	4/25/2008	11/5/2030
DIRECTV, LLC	Method And System For Generating Uplink Signals From A Ground Segment	11/728378	3/26/2007	4/14/2030
DIRECTV, LLC	Method And System For Marking Video Signals For Identification	11/728552	3/26/2007	10/7/2028
DIRECTV, LLC	Method And System For Inserting Digital Video Effects Into A Video Stream In Redundant Paths Before Routing	11/728379	3/26/2007	2/20/2029

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DIRECTV, LLC	Method And System For Inserting Digital Video Effects Into A Video Stream At A Multiplexing Device After Routing	11/728394	3/26/2007	9/9/2028
DIRECTV, LLC	Method And System Of Extending Recording Time For A Run-Over Program	12/102362	4/14/2008	7/14/2031
DIRECTV, LLC	Interactive Gaming Channel Video Stream With Nested Features	11/955214	12/12/2007	7/14/2031
DIRECTV, LLC	ODU Alignment Procedure Using Circularly Polarized Squint	11/971800	1/9/2008	1/8/2030
DIRECTV, LLC	Integrated Odu Controller For Antenna Pointing	12/185018	8/1/2008	11/12/2032
DIRECTV, LLC	Method And Apparatus For Authenticating A Code Image Upon Starting A Device	11/787409	4/16/2007	4/3/2034
DIRECTV, LLC	Live Video Management System	12/026995	2/6/2008	12/23/2031
DIRECTV, LLC	Live Integration Of Push-To-Talk (PTT) Audio With Independent Video Feed	12/027876	2/7/2008	9/5/2029
DIRECTV, LLC	Video Camera Tracking System Based On Geoposition Data Feedback	12/026735	2/6/2008	6/16/2032
DIRECTV, LLC	Method And Apparatus For Identifying Co-Channel Interference	12/098235	4/4/2008	11/27/2027
DIRECTV, LLC	Portable Satellite Station Combination	29/271004	1/6/2007	8/19/2022
DIRECTV, LLC	Portable Satellite Station Screen Unit	29/271036	1/6/2007	8/11/2023
DIRECTV, LLC	Portable Satellite Station Receiver Unit	29/271035	1/6/2007	8/26/2022
DIRECTV, LLC	Remote Control	29/271003	1/6/2007	7/8/2022
DIRECTV, LLC	Method And Apparatus For Transcrypting Or Transcoding Content For A Terminal Within A Vehicle	11/715179	3/7/2007	6/8/2028
DIRECTV, LLC	Single-Wire Multiswitch And Channelized Rf Cable Test Meter	12/032807	2/18/2008	10/18/2029
DIRECTV, LLC	Intuitive Electronic Program Guide Display	11/782787	7/25/2007	12/10/2028
DIRECTV, LLC	Intuitive Electronic Program Guide Display	12/914629	10/28/2010	1/2/2028

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DIRECTV, LLC	Methods And Apparatus To Present Audio And Video At Non-Native Rates	11/831074	7/31/2007	11/12/2030
DIRECTV, LLC	Method And System For Managing Content Lifecycle In A Content Processing System	11/828292	7/25/2007	3/9/2030
DIRECTV, LLC	Method And System Of Managing Files Within A Content Processing System Based On Publication Time	11/828534	7/26/2007	9/3/2031
DIRECTV, LLC	Method And System For Distributing Content To A User Device Through A Satellite Network And A Broadband Network	11/828520	7/26/2007	12/11/2027
DIRECTV, LLC	Method And System For Communicating Content Having Modified Packet Headers Through A Satellite	11/828530	7/26/2007	8/7/2033
DIRECTV, LLC	Methods And Apparatus To Control Audio Leveling In Media Presentation Devices	12/649143	12/29/2009	3/29/2031
DIRECTV, LLC	Method And Apparatus For Programming A Remote Control Using Broadcast Data	11/820532	6/20/2007	4/25/2031
DIRECTV, LLC	Advertisements For Use In A Program Guide	11/832073	8/1/2007	1/24/2030
DIRECTV, LLC	Method And System Of Wirelessly Retrieving Lost Content Segments Of Broadcasted Programming At A Mobile User Device From Another Mobile Device	11/945868	11/27/2007	10/25/2031
DIRECTV, LLC	Method And System For Performing Multi-Level Program Guide Category Searches	11/828935	7/26/2007	5/15/2028
DIRECTV, LLC	Method And System For Associating Content And Content Information In A Menu Structure	11/828519	7/26/2007	10/12/2029
DIRECTV, LLC	Method And System For Using Various Content And Content Information In Multiple Menu Structures	11/828507	7/26/2007	1/19/2030
DIRECTV, LLC	Method And System For Generating Row Advertising In A Program Guide	11/828503	7/26/2007	5/19/2029
DIRECTV, LLC	Method And System For Distributing Content To A User Device Through	11/782565	7/24/2007	1/18/2033

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	Allocated Assets Of A Satellite Network And A Broadband Network			
DIRECTV, LLC	Method And System For Remotely Controlling Content At A Set Top Box	11/782576	7/24/2007	8/17/2032
DIRECTV, LLC	Method And System For Associating Business Rules With Received Content In A Content Processing System And Generating A Content List Therefrom	11/782563	7/24/2007	7/24/2027
DIRECTV, LLC	Method And System For Distributing Content Using Device-Specific Content Delivery Networks	11/782554	7/24/2007	2/20/2037
DIRECTV, LLC	Method And System For Positioning Row Advertising In A Program Guide	11/828500	7/26/2007	5/19/2029
DIRECTV, LLC	Method And System For Positioning Row Advertising In A Program Guide	13/485326	5/31/2012	12/25/2027
DIRECTV, LLC	Method And System For Communicating And Displaying Broadband Content Availability Using Information Received Through A Satellite	11/828494	7/26/2007	11/9/2029
DIRECTV, LLC	Method And System For Forming A Content Stream With Conditional Access Information And A Content File	11/828601	7/26/2007	1/13/2034
DIRECTV, LLC	Method And System For Forming A Formatted Content Stream And Using A Cyclic Redundancy Check	11/828605	7/26/2007	6/17/2032
DIRECTV, LLC	Method For Arranging Virtual Channels And Linear Channels For A Content Processing System	11/828486	7/26/2007	5/27/2030
DIRECTV, LLC	Method And System For Preordering Content In A User Device Associated With A Content Processing System	11/828490	7/26/2007	3/14/2029
DIRECTV, LLC	Method And System For Controlling Communication Between A User Device And A Content Delivery Network	11/828551	7/26/2007	11/30/2032
DIRECTV, LLC	Method And System For Controlling The Operation Of A User Device To Receive Content	11/828556	7/26/2007	2/27/2033

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DIRECTV, LLC	Method And System For Receiving Content In A Content Processing System Using A Workflow System	11/828625	7/26/2007	5/9/2033
DIRECTV, LLC	Methods And Apparatus To Save Search Data	12/132173	6/3/2008	6/6/2029
DIRECTV, LLC	Computationally Efficient Design For Broadcast Satellite Single Wire And/Or Direct Demod Interface	13/566193	8/3/2012	8/20/2028
DIRECTV, LLC	Methods And Apparatus To Distinguish Elements Of A User Interface	11/931760	10/31/2007	3/1/2029
DIRECTV, LLC	Methods And Apparatus To Conditionally Display Icons In A User Interface	12/343914	12/24/2008	1/17/2030
DIRECTV, LLC	Methods And Apparatus To Conditionally Display Icons In A User Interface	13/932917	7/1/2013	12/24/2028
DIRECTV, LLC	Customizable Graphical Elements For Use In Association With A User Interface	12/343825	12/24/2008	7/6/2033
DIRECTV, LLC	Interactive Remote Control Programming Method	12/341976	12/22/2008	8/25/2031
DIRECTV, LLC	Method And System For Monitoring And Switching Between A Primary And Diverse Site In A Satellite Communication System	11/853744	9/11/2007	2/21/2032
DIRECTV, LLC	Method And System For Monitoring And Switching Between A Primary Encoder And A Back-Up Encoder In A Communication System	11/853747	9/11/2007	11/24/2031
DIRECTV, LLC	Method And System For Monitoring And Switching Between Primary And Back-Up Uplink Signal Processing Circuits In A Satellite Communication System	11/853761	9/11/2007	2/4/2031
DIRECTV, LLC	Method And System For Monitoring Various Signals In A Continuous Processing Circuit For A Single Channel In A Communication System	11/853758	9/11/2007	9/15/2029
DIRECTV, LLC	Method And System For Monitoring And Displaying Signals Corresponding To A Transponder Of A Satellite In A Satellite Communication System	11/853753	9/11/2007	3/14/2033

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DIRECTV, LLC	Method And System For Monitoring And Simultaneously Displaying A Plurality Of Signal Channels In A Communication System	11/853749	9/11/2007	9/16/2032
DIRECTV, LLC	Method And System For Monitoring And Simultaneously Displaying A Plurality Of Signal Channels In A Communication System	14/618812	2/10/2015	3/11/2028
DIRECTV, LLC	Method And System For Operating A Monitoring System For A Satellite Communication System	11/853746	9/11/2007	10/1/2028
DIRECTV, LLC	Method And System For Monitoring A Receiving Circuit Module And Controlling Switching To A Back-Up Receiving Circuit Module At A Local Collection Facility From A Remote Facility	11/853737	9/11/2007	9/24/2033
DIRECTV, LLC	Method And System For Operating A Receiving Circuit For Multiple Types Of Input Channel Signals	11/853742	9/11/2007	12/16/2030
DIRECTV, LLC	Method And System For Switching To An Engineering Signal Processing System From A Production Signal Processing System	11/853740	9/11/2007	4/7/2030
DIRECTV, LLC	Method And System For Processing Signals From A Local Collection Facility At A Signal Processing Facility	11/853736	9/11/2007	1/14/2030
DIRECTV, LLC	Method And System For Placing Inserts Into A Broadcast Television Signal	11/852915	9/10/2007	10/1/2031
DIRECTV, LLC	Method And System For Monitoring A Content Signal	11/852957	9/10/2007	1/28/2031
DIRECTV, LLC	Method And System For Interrupting Inserted Material In A Content Signal	11/852954	9/10/2007	10/27/2028
DIRECTV, LLC	Method And System For Tracking Actual Channel Content Output	11/852956	9/10/2007	8/11/2032
DIRECTV, LLC	Method And System For Real-Time Reconciliation For Unused Content	11/852984	9/10/2007	1/9/2029
DIRECTV, LLC	Method And System For Forming A Countdown Clock Channel Output	11/852963	9/10/2007	1/29/2029

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DIRECTV, LLC	Method And System For Monitoring And Controlling A Local Collection Facility From A Remote Facility Using An Asynchronous Transfer Mode (Atm) Network	11/854433	9/12/2007	1/15/2029
DIRECTV, LLC	Method And System For Controlling A Back-Up Receiver And Encoder In A Local Collection Facility From A Remote Facility	11/854408	9/12/2007	9/12/2027
DIRECTV, LLC	Method And System For Controlling A Back-Up Multiplexer In A Local Collection Facility From A Remote Facility	11/854417	9/12/2007	12/20/2030
DIRECTV, LLC	Method And System For Controlling A Back-Up Network Adapter In A Local Collection Facility From A Remote Facility	11/854442	9/12/2007	2/22/2032
DIRECTV, LLC	Method And System For Monitoring And Controlling A Local Collection Facility From A Remote Facility Through An Ip Network	11/929252	10/30/2007	12/19/2030
DIRECTV, LLC	Method And System For Monitoring And Controlling A Back-Up Receiver In Local Collection Facility From A Remote Facility Using An Ip Network	11/929373	10/30/2007	1/4/2031
DIRECTV, LLC	Method And System For Monitoring And Encoding Signals In A Local Facility And Communicating The Signals Between A Local Collection Facility And A Remote Facility Using An Ip Network	11/930390	10/31/2007	1/10/2031
DIRECTV, LLC	Method And System For Controlling Redundancy Of Individual Components Of A Remote Facility System	11/930601	10/31/2007	5/20/2028
DIRECTV, LLC	Method And System For Ordering Video Content From A Mobile Device	11/871983	10/13/2007	6/22/2028
DIRECTV, LLC	Method And System For Ordering Video Content From A Mobile Device	14/030188	9/18/2013	10/13/2027
DIRECTV, LLC	Method And System For Ordering Video Content From A First Device	14/190502	2/26/2014	10/13/2027
DIRECTV, LLC	Method And System For Ordering And Prioritizing The Downloading Of Content From An Interactive Interface	11/871985	10/13/2007	5/6/2029

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DIRECTV, LLC	Method And System For Quickly Recording Linear Content From An Interactive Interface	11/871986	10/13/2007	4/30/2029
DIRECTV, LLC	Method And System For Confirming The Download Of Content At A User Device	11/871988	10/13/2007	8/28/2032
DIRECTV, LLC	Method And System For Securely Requesting Download Of Content To A User Device From Another Device	11/871989	10/13/2007	1/19/2030
DIRECTV, LLC	Method And Apparatus For Mutually Authenticating A User Device Of A Primary Service Provider	11/959060	12/18/2007	6/22/2032
DIRECTV, LLC	Method And System For Authenticating A User Receiving Device Into A Primary Service Provider System To Communicate With A Partner Service Provider	11/960471	12/19/2007	10/18/2031
DIRECTV, LLC	Method And System For Securely Communicating Between A Primary Service Provider And A Partner Service Provider	11/960496	12/19/2007	7/7/2032
DIRECTV, LLC	Method And System For Securely Communicating Between A User Network Device, A Primary Service Provider And A Partner Service Provider	11/960526	12/19/2007	1/22/2032
DIRECTV, LLC	Method And System For Providing A Generic Program Guide Data From A Primary Content Provider To A User Network Device Through A Partner Service Provider	11/960560	12/19/2007	9/10/2031
DIRECTV, LLC	Method And System For Providing Program Guide Data From A Content Provider To A User Device Through A Partner Service Provider Based Upon User Attributes	11/960574	12/19/2007	3/25/2030
DIRECTV, LLC	Method And System For Remotely Requesting Recording At A User Network Device For A User Recording System	11/960585	12/19/2007	11/20/2031
DIRECTV, LLC	Method And Apparatus For Communicating Between A User Device And A Gateway Device To Form A System	11/960869	12/20/2007	11/11/2030

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	To Allow A Partner Service To Be Provided To The User Device			
DIRECTV, LLC	Method And Apparatus For Communicating Between A User Device And A User Device Locating Module To Allow A Partner Service To Be Provided To A User Device	11/960951	12/20/2007	5/28/2032
DIRECTV, LLC	Method And Apparatus For Communicating Between A Requestor And A User Receiving Device Using A User Device Locating Module	11/960984	12/20/2007	8/11/2030
DIRECTV, LLC	Method And System For Extending Recording	09/855813	5/14/2001	5/25/2024
DIRECTV, LLC	Method And System For Remote Television Replay Control	09/925120	8/8/2001	10/9/2024
DIRECTV, LLC	Method And System For Remote Television Replay Control	13/230830	9/12/2011	12/3/2023
DIRECTV, LLC	One Click Web Records	09/972424	10/4/2001	1/23/2030
DIRECTV, LLC	One Click Web Records	14/848019	9/8/2015	11/16/2023
DIRECTV, LLC	Method And System For Dynamic Ad Placement	09/978144	10/15/2001	1/31/2030
DIRECTV, LLC	Advertisements In A Television Recordation System	10/033401	12/26/2001	6/25/2029
DIRECTV, LLC	Method And System For Dynamic Ad Placement	14/058393	10/21/2013	2/1/2025
DIRECTV, LLC	Method And System For Pause Ads	09/978170	10/15/2001	3/4/2026
DIRECTV, LLC	System For Pause Ads	13/305782	11/29/2011	11/8/2021
DIRECTV, LLC	System And Method For Improved Blackfield Detection	10/132968	4/26/2002	4/26/2022
DIRECTV, LLC	Video Data Recorder With Personal Channels	10/386585	3/11/2003	3/11/2022
DIRECTV, LLC	System And Method For Navigation Of Indexed Video Content	10/393599	3/20/2003	3/20/2023

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DIRECTV, LLC	Apparatus For Viewing Television With Pause Capability	10/396229	3/24/2003	10/14/2028
DIRECTV, LLC	Method And Apparatus For Navigating Content In A Personal Video Recorder	10/918721	8/12/2004	8/12/2024
DIRECTV, LLC	Method And System For Adaptive Transcoding And Transrating In A Video Network	10/939669	9/13/2004	10/2/2026
DIRECTV, LLC	Method And System For Adaptive Transcoding And Transrating In A Video Network	12/494091	6/29/2009	7/31/2026
DIRECTV, LLC	Method And Apparatus For Distributing Media In A Pay Per Play Architecture With Remote Playback Within An Enterprise	11/021096	12/22/2004	2/24/2029
DIRECTV, LLC	Method And System For Reconfiguring A Selection System Based On Layers Of Categories Descriptive Of Recordable Events	11/030422	1/5/2005	5/21/2025
DIRECTV, LLC	Method And System For Reconfiguring A Selection System Based On Layers Of Categories Descriptive Of Recordable Events	11/876181	10/22/2007	5/21/2025
DIRECTV, LLC	Method And System For Reconfiguring A Selection System Based On Layers Of Categories Descriptive Of Recordable Events	12/797664	6/10/2010	8/24/2028
DIRECTV, LLC	Method And System For Displaying A Series Of Recordable Events	11/030692	1/5/2005	1/5/2025
DIRECTV, LLC	Method And System For Displaying A Series Of Recordable Events	12/686090	1/12/2010	1/5/2027
DIRECTV, LLC	Method And System For Displaying A Series Of Recordable Events	13/890744	5/9/2013	1/17/2025
DIRECTV, LLC	Method And System For Remote Television Replay Control	13/195699	8/1/2011	4/28/2033
DIRECTV, LLC	Method And System For Remote Television Replay Control	15/347548	11/9/2016	8/8/2021
DIRECTV, LLC	Interface For Resolving Recording Conflicts With Network Devices	10/124064	4/16/2002	3/17/2027

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DIRECTV, LLC	Methods And Apparatus For Sending Content Between Client Devices	10/124583	4/16/2002	8/9/2024
DIRECTV, LLC	Methods And Apparatus For Sending Content Between Client Devices	13/487074	6/1/2012	1/7/2023
DIRECTV, LLC	Accessing Programs Using Networked Digital Video Recording Devices	10/124190	4/16/2002	5/30/2026
DIRECTV, LLC	Accessing Programs Using Networked Digital Video Recording Devices	15/418053	1/27/2017	4/16/2022
DIRECTV, LLC	Network Video Unit	10/215904	8/9/2002	12/9/2027
DIRECTV, LLC	Network Video Unit	14/496011	9/25/2014	8/9/2022
DIRECTV, LLC	Network Video Unit	14/496022	9/25/2014	8/9/2022
DIRECTV, LLC	Network Video Unit	14/874430	10/3/2015	8/9/2022
DIRECTV, LLC	Digital Recording And Playback	10/339012	1/8/2003	9/5/2028
DIRECTV, LLC	Asset Allocation System And Method For Allocating Satellite Resources In A Satellite Broadcast Communication System	12/041952	3/4/2008	3/24/2031
DIRECTV, LLC	Method And System For Changing Allocation Charts In A Satellite Broadcasting System	12/042098	3/4/2008	3/26/2035
DIRECTV, LLC	Method And System For Communicating Changes In A Broadcast System To Other Broadcast Components	12/042185	3/4/2008	6/11/2030
DIRECTV, LLC	Method For Swapping Channel Assignments In A Broadcast System	12/042226	3/4/2008	6/15/2031
DIRECTV, LLC	Method And System For Initiating An Emergency Alert In A Broadcast System	12/042248	3/4/2008	6/17/2029
DIRECTV, LLC	Tool To Automatically Align Outdoor Unit	12/186435	8/5/2008	2/26/2032
DIRECTV, LLC	Antenna Peak Strength Finder	12/269811	11/12/2008	2/18/2030
DIRECTV, LLC	Method And Apparatus For Redirecting A Receiving Device In The Event Of A Programming Blackout	12/047406	3/13/2008	10/24/2029

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DIRECTV, LLC	Method And System For Allowing Multiple Receiving Units In A Network To Record The Same Content While Minimizing Network Resource Use	12/060944	4/2/2008	6/8/2033
DIRECTV, LLC	Method And System For Arbitrating Recording Requests From Multiple Receiving Units In A Network To Receive The Same Content	12/060973	4/2/2008	4/11/2030
DIRECTV, LLC	Receiver Unit Changing Between A High Definition Mode And Standard Mode And Method Therefor	12/112604	4/30/2008	10/5/2030
DIRECTV, LLC	Method And System Of Marking And Recording Content Of Interest In A Broadcast Stream	12/132122	6/3/2008	12/6/2029
DIRECTV, LLC	Method And System Of Scaling External Resources For A Receiving Device	12/241366	9/30/2008	4/26/2029
DIRECTV, LLC	Method And System Of Processing Multiple Playback Streams Via A Single Playback Channel	12/241323	9/30/2008	6/3/2030
DIRECTV, LLC	Method And System For Abstracting External Devices Via A High Level Communications Protocol	12/241335	9/30/2008	11/27/2032
DIRECTV, LLC	Method And System For Controlling A Low Power Mode For External Devices	12/241354	9/30/2008	10/30/2033
DIRECTV, LLC	Method And System For Controlling A Low Power Mode For External Devices	15/213455	7/19/2016	4/22/2029
DIRECTV, LLC	Method And System For Controlling A Low Power Mode For External Devices	16/240940	1/7/2019	1/3/2029
DIRECTV, LLC	Method And System For Controlling A Low Power Mode For External Devices	17/027264	9/21/2020	
DIRECTV, LLC	Method And System For Predicting Use Of An External Device And Removing The External Device From A Low Power Mode	12/241466	9/30/2008	3/21/2030
DIRECTV, LLC	Method And System For Dynamically Changing A User Interface For Added Or Removed Resources	12/241545	9/30/2008	4/10/2030

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DIRECTV, LLC	Method And System For Bandwidth Shaping To Optimize Utilization Of Bandwidth	12/241577	9/30/2008	6/1/2032
DIRECTV, LLC	Method And System For Interfacing Content Between Devices	12/436695	5/6/2009	7/23/2033
DIRECTV, LLC	Method And System For Forming Content In A Fantasy Sporting Event	12/200868	8/28/2008	2/14/2031
DIRECTV, LLC	Method And System For Ordering Content Using A Voice Menu System	12/200905	8/28/2008	5/12/2035
DIRECTV, LLC	User Interface For Displaying Highlights Of An Event Or Plurality Of Events	12/200863	8/28/2008	8/29/2031
DIRECTV, LLC	Method And System For Assigning A Channel To Data In A Data Stream	12/200886	8/28/2008	2/14/2035
DIRECTV, LLC	Method And System For Assigning A Channel To Data In A Data Stream	15/148219	5/6/2016	8/28/2028
DIRECTV, LLC	Method And System For Discontinuing A Channel Stream In A Multi-Terminal System	12/210850	9/15/2008	9/1/2034
DIRECTV, LLC	Method And System For Inserting Local Channel Insertion In A Multi-Terminal System	12/210867	9/15/2008	5/4/2030
DIRECTV, LLC	Method And System For Controlling A Multi-Terminal System	12/266829	11/7/2008	7/26/2030
DIRECTV, LLC	Method And System For Operating A Receiving Circuit Module To Encode A Channel Signal Into Multiple Encoding Formats	12/264435	11/4/2008	5/10/2031
DIRECTV, LLC	Method And System For Updating Programming Listing Data For A Broadcasting System	12/203760	9/3/2008	3/21/2033
DIRECTV, LLC	Method And System For Communicating Customer Service Requests	12/482167	6/10/2009	10/19/2032
DIRECTV, LLC	Method And Apparatus For Communicating Interactive Content In A Broadcast Communication System	12/482179	6/10/2009	6/11/2033

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DIRECTV, LLC	Ka/Ku Outdoor Unit Configuration Using A Frequency Selective Surface	12/244684	10/2/2008	9/29/2029
DIRECTV, LLC	Method And Apparatus For Managing Software Downloads In A Broadcast Communication System	12/615880	11/10/2009	9/14/2034
DIRECTV, LLC	Method And Apparatus For Monitoring A Transport Processing System In A Software Download Broadcast Communication System	12/615915	11/10/2009	9/7/2033
DIRECTV, LLC	Frequency Drift Estimation For Low Cost Outdoor Unit Frequency Conversions And System Diagnostics	13/554022	7/20/2012	1/6/2030
DIRECTV, LLC	Frequency Drift Estimation For Low Cost Outdoor Unit Frequency Conversions And System Diagnostics	13/964940	8/12/2013	7/5/2030
DIRECTV, LLC	Aas Direct Signaling Framing Methodologies To Support High Capacity Wireless Links	11/936786	11/7/2007	6/29/2030
DIRECTV, LLC	Aas Direct Signaling Framing Methodologies To Support High Capacity Wireless Links	13/171108	6/28/2011	5/30/2028
DIRECTV, LLC	Aas Direct Signaling Framing Methodologies To Support High Capacity Wireless Links	14/041192	9/30/2013	11/7/2027
DIRECTV, LLC	Aas Direct Signaling Framing Methodologies To Support High Capacity Wireless Links	14/814971	7/31/2015	11/7/2027
DIRECTV, LLC	Systems And Methods For Channel Based Beamforming For Stacked Carrier Multiple Access	12/276261	11/21/2008	4/4/2031
DIRECTV, LLC	Maintaining Linear Beamforming Weights In Communications Systems	13/411507	3/2/2012	11/21/2028
DIRECTV, LLC	Wireless Communications Systems And Methods	13/411510	3/2/2012	11/21/2028
DIRECTV, LLC	Wireless Communications Systems And Methods	14/804094	7/20/2015	10/22/2029

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DIRECTV, LLC and Entropic Communications, Inc.	Variable Phy Margin To Combat Ingress Noise	12/612994	11/5/2009	9/17/2030
DIRECTV, LLC	Method And System For Authenticating A Request	12/717808	3/4/2010	3/2/2031
DIRECTV, LLC	Method And System For Retrieving Data From Multiple Sources	12/717812	3/4/2010	11/8/2032
DIRECTV, LLC	Content Distribution Network Selector	12/649153	12/29/2009	9/7/2032
DIRECTV, LLC	Method And Apparatus For Establishing An Accurate Low Bit Time Stamp In A Remotely Created Watermark	12/766811	4/23/2010	9/23/2031
DIRECTV, LLC	Method And Apparatus For Remotely Inserting Watermark Into Encrypted Compressed Video Bitstream	12/766813	4/23/2010	4/11/2031
DIRECTV, LLC	Method And Apparatus To Search For Program Content Via A Remote Control Interface	12/795523	6/7/2010	2/25/2032
DIRECTV, LLC	Multi-Ring Ip Multicast Network And Method Using Autonomous Instances Of Interior Gateway Protocol (Igp)	12/779871	5/13/2010	9/17/2031
DIRECTV, LLC	Omnidirectional Switchable Broadband Wireless Antenna System	12/797412	6/9/2010	4/25/2031
DIRECTV, LLC	Integrated Satellite-Tv Broadband Wireless System	12/797570	6/9/2010	4/25/2031
DIRECTV, LLC	Satellite Seeding Of A Peer-To-Peer Content Distribution Network	12/502185	7/13/2009	10/10/2033
DIRECTV, LLC	System And Method For Providing Multiple Rating Versions In Media Programming	13/403716	2/23/2012	2/23/2032
DIRECTV, LLC	System And Method For Providing Multiple Rating Versions In Media Programming	14/296156	6/4/2014	2/23/2032
DIRECTV, LLC	Method And System For Operating A Communication System Encoded Into Multiple Independently Communicated Encoding Formats	13/080551	4/5/2011	9/27/2036

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DIRECTV, LLC	Method And System For Pushing Content In A Broadcast Communication System	12/773782	5/4/2010	11/28/2030
DIRECTV, LLC	Method And System For Testing An Integrated Receiver Decoder With Signals From Outside The Local Market Area	12/840029	7/20/2010	5/17/2032
DIRECTV, LLC	Mobile Streaming Processing System For Video And Audio Content	12/879957	9/10/2010	1/3/2032
DIRECTV, LLC	Method And System For Updating A Software Image At A Client Device	12/878827	9/9/2010	5/24/2035
DIRECTV, LLC	Method And System For Rebooting A Client Device Within A Local Area Network From A Central Server	12/878822	9/9/2010	9/16/2032
DIRECTV, LLC	Method And System For Controlling Closed Captioning At A Content Distribution System	12/881006	9/13/2010	6/17/2031
DIRECTV, LLC	Method And System For Transferring Control Of A User Interface Of A Content Distribution System	12/881054	9/13/2010	3/10/2031
DIRECTV, LLC	Method And System For Distributing Content	12/881043	9/13/2010	3/29/2032
DIRECTV, LLC	Method And System For Forming An Audio Overlay For Streaming Content Of A Content Distribution System	12/881016	9/13/2010	7/14/2032
DIRECTV, LLC	Method And System For Controlling A Display Buffer In A Content Distribution System	12/881027	9/13/2010	3/9/2031
DIRECTV, LLC	Method And System For Operating A Multi-Room Digital Video Recording System	15/229610	8/5/2016	12/29/2029
DIRECTV, LLC	Method And System For Registering A Client Device In A Multi-Room Digital Video Recording System	12/647895	12/28/2009	3/8/2030
DIRECTV, LLC	Method And System For Registering A Client Device In A Multi-Room Digital Video Recording System	13/921940	6/19/2013	12/28/2029

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DIRECTV, LLC	Method And Apparatus For Programming A Remote Control Using A Device Identifier Received Through An Interface	13/458661	4/27/2012	4/5/2033
DIRECTV, LLC	Method And System For Accessing Content In Another Format In A Communications System	12/957186	11/30/2010	2/4/2032
DIRECTV, LLC	Method And System For Authenticating Service Providers To Communicate With A Primary Service Provider	13/031094	2/18/2011	5/8/2032
DIRECTV, LLC	Method And System For Authorizing User Devices To Communicate With A Primary Service Provider Using A Limited Number Of Streams	13/031099	2/18/2011	6/14/2031
DIRECTV, LLC	Method And System For Discovering An Identity Provider	13/031105	2/18/2011	12/12/2035
DIRECTV, LLC	Method And System For Ingesting Content Schedule Data From An External Source	13/031113	2/18/2011	5/24/2031
DIRECTV, LLC	Aggregation Of Playlist In Multi Dvr Environment	12/789836	5/28/2010	2/9/2033
DIRECTV, LLC	Method And System For Changing Communication Parameters Of A Content Delivery System Based On Feedback From User Devices	13/111221	5/19/2011	1/13/2034
DIRECTV, LLC	Method And System For Changing Communication Parameters Of A Content Delivery System Based On Feedback From User Devices	15/240387	8/18/2016	5/19/2031
DIRECTV, LLC	Method And System For Controlling A Storage Location Of Content In A User Device	13/111239	5/19/2011	7/6/2035
DIRECTV, LLC	Method And System For Controlling A Queue For Communicating Content In A Broadcast Communication System	12/773795	5/4/2010	9/16/2032
DIRECTV, LLC	Method And System Of Building A Wanted List Queue For A User In A Content Distribution System	13/111249	5/19/2011	5/19/2031

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DIRECTV, LLC	System And Method To Monitor Audio Loudness And Provide Audio Automatic Gain Control	15/671033	8/7/2017	7/13/2031
DIRECTV, LLC	System And Method For Distributing High-Quality 3D Video In A 2D Format	13/609708	9/11/2012	10/16/2035
DIRECTV, LLC	Method And System For Entitling A User Device To Receive Content From Data From An External Source	13/031119	2/18/2011	4/23/2031
DIRECTV, LLC	System And Method For Sharing Television Programming Information Using Universal Identifier	12/947518	11/16/2010	11/21/2033
DIRECTV, LLC	Method And System For Storing Program Guide Data In A User Device	12/895645	9/30/2010	4/3/2032
DIRECTV, LLC	Method And System For Storing Program Guide Data In A User Device	16/029782	7/9/2018	11/6/2030
DIRECTV, LLC	Method And System For Searching For Content In A User Device	13/222986	8/31/2011	8/31/2031
DIRECTV, LLC	System And Method For Drawing Anti-Aliased Lines In Any Direction	13/294146	11/10/2011	8/25/2033
DIRECTV, LLC	System And Method For Drawing Anti-Aliased Lines In Any Direction	14/812824	7/29/2015	11/10/2031
DIRECTV, LLC	Method For Creating Interactive Applications For Television	13/183246	7/14/2011	4/26/2032
DIRECTV, LLC	Method And System For Automating Advertising Insertion And Reconciliation	14/334516	7/17/2014	6/12/2031
DIRECTV, LLC	Method And System For Prioritizing Content In A Delivery Queue Of A Content Delivery System	13/039118	3/2/2011	3/7/2032
DIRECTV, LLC	Method And Apparatus For Communicating And Updating Logo Identifiers	13/024277	2/9/2011	12/11/2031
DIRECTV, LLC	Method And System For Collecting Client Usage Data For A User Device	12/957221	11/30/2010	6/7/2031
DIRECTV, LLC	Managing Signal Delivery To A Plurality Of Display Platforms	12/877767	9/8/2010	10/10/2031

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DIRECTV, LLC	Mss Headend Caching Strategies	13/682700	11/20/2012	9/2/2034
DIRECTV, LLC	MSS Headend Caching Strategies	15/240816	8/18/2016	11/20/2032
DIRECTV, LLC	Method And System For Using A Second Screen Device For Interacting With A Set Top Box To Enhance A User Experience	13/224206	9/1/2011	2/5/2033
DIRECTV, LLC	Method And System For Using A Second Screen Device For Interacting With A Set Top Box To Enhance A User Experience	14/191276	2/26/2014	6/8/2033
DIRECTV, LLC	Method And System For Using A Second Screen Device For Interacting With A Set Top Box To Enhance A User Experience	14/191288	2/26/2014	2/5/2033
DIRECTV, LLC	Method And System For Using A Second Screen Device For Interacting With A Set Top Box To Enhance A User Experience	14/631076	2/25/2015	8/3/2032
DIRECTV, LLC	Method And System For Detecting Unauthorized Use Of A Set Top Box Using Satellite Signal Identification	15/581355	4/28/2017	3/15/2032
DIRECTV, LLC	Method And System For Detecting Unauthorized Use Of A Set Top Box Using Satellite Signal Identification	16/239619	1/4/2019	3/7/2032
DIRECTV, LLC	Method And System For Detecting Unauthorized Use Of A Set Top Box Using Satellite Signal Identification	17/026813	9/21/2020	
DIRECTV, LLC	Method And System For Detecting Unauthorized Use Of A Set Top Box Using Expected Terrestrial Signal Identification	13/413822	3/7/2012	3/7/2032
DIRECTV, LLC	Method And System For Detecting Unauthorized Use Of A User Device Using Receiver Identification In A Network	13/413815	3/7/2012	6/28/2033
DIRECTV, LLC	Method And System For Providing Different Categories Of Programming Data To A User Device From Head End Systems	13/028150	2/15/2011	7/15/2032
DIRECTV, LLC	Method And System For Remotely Transcoding Content	13/349271	1/12/2012	3/10/2032
DIRECTV, LLC	Method And System For Remotely Transcoding Content	14/518616	10/20/2014	6/12/2032

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DIRECTV, LLC	Method And System For Remotely Transcoding Content	15/701489	9/12/2017	1/12/2032
DIRECTV, LLC	Method And System For Remotely Transcoding Content	16/045068	7/25/2018	1/12/2032
DIRECTV, LLC	Method And System For Communicating Descriptive Data In A Television Broadcast System	13/626749	9/25/2012	9/25/2032
DIRECTV, LLC	Systems And Methods For Providing Broadcast Content Via Distributed Kiosks	14/590938	1/6/2015	1/6/2035
DIRECTV, LLC	Method And System For Communicating Between A Host Device And User Device Through An Intermediate Device Using A Composite Video Signal	13/611998	9/12/2012	2/7/2035
DIRECTV, LLC	Method And System For Obtaining Viewing Data And Providing Content Recommendations At A Set Top Box	13/529040	6/21/2012	3/4/2033
DIRECTV, LLC	Method And System For Recording Recommended Content Within A User Device	13/803395	3/14/2013	1/4/2033
DIRECTV, LLC	Method And System For Recording Recommended Content Within A User Device	15/692649	8/31/2017	6/21/2032
DIRECTV, LLC	Method And System For Obtaining Viewing Data And Providing Content Recommendations At A Set Top Box	15/704333	9/14/2017	6/21/2032
DIRECTV, LLC	Method And System For Recording Recommended Content Within A User Device	16/296370	3/8/2019	6/21/2032
DIRECTV, LLC	Method And System For Obtaining Feedback For A Content Recommendation By Various Algorithms	13/529048	6/21/2012	6/21/2032
DIRECTV, LLC	Method And System For Controlling A Controlled Device With A Remote Control Device Through A Display Device	13/285917	10/31/2011	1/14/2034
DIRECTV, LLC	System And Method To Detect Garbled Closed Captioning	14/188558	2/24/2014	2/24/2034

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DIRECTV, LLC	System And Method To Detect Garbled Closed Captioning	14/561088	12/4/2014	2/24/2034
DIRECTV, LLC	System And Method To Detect Garbled Closed Captioning	14/849499	9/9/2015	12/4/2034
DIRECTV, LLC	Method And System For Adding Local Channels And Program Guide Data At A User Receiving Device In An Aggregated Content Distribution System	13/285931	10/31/2011	10/31/2031
DIRECTV, LLC	Aggregated Content Distribution System And Method For Operating The Same	13/285955	10/31/2011	10/31/2031
DIRECTV, LLC	Method And System For Controlling User Devices In An Aggregated Content Distribution System	13/285967	10/31/2011	10/31/2031
DIRECTV, LLC	Method And System For Detecting Unauthorized Use Of A Set Top Box Using Weather Profiles	13/340033	12/29/2011	11/29/2033
DIRECTV, LLC	Method And System For Communicating Conditional Access Packet Signals Through A Network	13/270115	10/10/2011	4/10/2032
DIRECTV, LLC	Method And System For Determining A Location Of A Mobile Device And Utilizing The Location In Content Services	15/620879	6/13/2017	9/20/2031
DIRECTV, LLC	Method And System For Determining A Location Of A Mobile Device And Utilizing The Location In Content Services	16/296914	3/8/2019	8/31/2031
DIRECTV, LLC	Method And System For Authorizing Playback From Multiple Devices	13/611640	9/12/2012	9/12/2032
DIRECTV, LLC	Method And System For Authorizing Playback From Multiple Devices	14/294368	6/3/2014	9/12/2032
DIRECTV, LLC	Method And System For Using A Second Screen Device To Tune A Set Top Box To Display Content Playing On The Second Screen Device	14/137886	12/20/2013	10/24/2031
DIRECTV, LLC	Method And System For Displaying Content Or Conflicts From Multiple Receiving Devices On A Second Screen Device	13/492517	6/8/2012	6/8/2032

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DIRECTV, LLC	Method And System For Providing On-Demand And Pay-Per-View Content Through A Hospitality System	13/557111	7/24/2012	7/24/2032
DIRECTV, LLC	Method And System For Securing Content Communication In Chunks From A Content Delivery Network To A User Receiving Device	13/751807	1/28/2013	5/9/2034
DIRECTV, LLC	Method And System For Using Saved Search Results In Menu Structure Searching For Obtaining Faster Search Results	13/452693	4/20/2012	4/20/2032
DIRECTV, LLC	Method And System For Using Saved Search Results In Menu Structure Searching For Obtaining Fast Search Results	16/253464	1/22/2019	4/20/2032
DIRECTV, LLC	Method And System For Searching Content Using A Content Time Based Window Within A User Device	13/452716	4/20/2012	11/9/2032
DIRECTV, LLC	Method And System For Managing Digital Rights For Content	13/370170	2/9/2012	7/5/2032
DIRECTV, LLC	Dual Pitch Jack Screw For Odu Alignment	13/494853	6/12/2012	3/11/2034
DIRECTV, LLC	Rotation Pointed Antenna For Fixed Wireless Wide Area Networks	13/923996	6/21/2013	6/9/2030
DIRECTV, LLC	Rotation Pointed Antenna For Fixed Wireless Wide Area Networks	14/858944	9/18/2015	6/9/2030
DIRECTV, LLC	Method And System For Improving Responsiveness Of A Voice Recognition System	13/832790	3/15/2013	12/4/2034
DIRECTV, LLC	Method And System For Communicating Between A Host Device And A User Device Through An Intermediate Device Using A Composite Graphics Signal	13/612367	9/12/2012	9/12/2032
DIRECTV, LLC	Systems And Methods For Controlling Advertising, Upselling, Cross-Selling, And Purchasing Of Products And Services Via User Receiving Devices And Mobile Devices	14/592828	1/8/2015	5/21/2037

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DIRECTV, LLC	Systems And Methods For Controlling Advertising, Upselling, Cross-Selling, And Purchasing Of Products And Services Via User Receiving Devices And Mobile Devices	17/060444	10/1/2020	
DIRECTV, LLC	Audio Scheduling And Recording Systems And Methods	14/592829	1/8/2015	1/8/2035
DIRECTV, LLC	Systems And Methods For Triggering User Interfaces For Product And/Or Service Transactions Via User Receiving Devices And Mobile Devices	14/592835	1/8/2015	1/8/2035
DIRECTV, LLC	Combining Transponder Bandwidths For Source And Forward Error Correction Encoding Efficiency	11/193856	7/29/2005	1/7/2030
DIRECTV, LLC	Combining Transponder Bandwidths For Source And Forward Error Correction Encoding Efficiency	13/484756	5/31/2012	7/29/2025
DIRECTV, LLC	Method And Apparatus For Transmitting High Bandwidth Signals With Low Bandwidth Transponders	13/829916	3/14/2013	10/4/2026
DIRECTV, LLC	Method And Apparatus For Transmitting High Bandwidth Signals With Low Bandwidth Transponders	15/384124	12/19/2016	9/28/2025
DIRECTV, LLC	Method And System For User Configuration Of Channel Order In Electronic Program Guide	14/587920	12/31/2014	12/31/2034
DIRECTV, LLC	Systems And Methods For Accessing Bookmarked Content	14/592825	1/8/2015	1/8/2035
DIRECTV, LLC	Methods For Determining Localized Outages And Distributed Signal Verification Of Set-Top Boxes	14/590216	1/6/2015	1/6/2035
DIRECTV, LLC	Methods For Determining Localized Outages And Distributed Signal Verification Of Set-Top Boxes	15/694382	9/1/2017	1/6/2035
DIRECTV, LLC	Methods For Determining Localized Outages And Distributed Signal Verification Of Set-Top Boxes	16/040735	7/20/2018	1/6/2035

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DIRECTV, LLC	Methods For Determining Localized Outages And Distributed Signal Verification Of Set-Top Boxes	16/379494	4/9/2019	1/6/2035
DIRECTV, LLC	Methods And Systems For Aligning A Satellite Receiver Dish Using A Smartphone Or Tablet Device	14/660868	3/17/2015	3/17/2035
DIRECTV, LLC	Method And System For Communicating Between A Host Device And User Device Through An Intermediate Device Using Syntax Translation	13/612389	9/12/2012	4/25/2033
DIRECTV, LLC	Data Distribution Amongst Transponder Carriers	14/586210	12/30/2014	12/30/2034
DIRECTV, LLC	Data Distribution Amongst Transponder Carriers	15/410247	1/19/2017	12/30/2034
DIRECTV, LLC	Data Distribution Amongst Transponder Carriers	16/038651	7/18/2018	12/30/2034
DIRECTV, LLC	Data Distribution Amongst Transponder Carriers	16/376844	4/5/2019	12/30/2034
DIRECTV, LLC	Method And System For Transferring User Settings To Another User Receiving Device	14/207354	3/12/2014	3/12/2034
DIRECTV, LLC	Method And Apparatus For Data Traffic Distribution Among Independent Processing Centers	13/682704	11/20/2012	3/26/2033
DIRECTV, LLC	Method And System For Transferring User Settings To Another User Receiving Device Using A Mobile User Device	14/207345	3/12/2014	8/19/2034
DIRECTV, LLC	Method And System For Transferring User Settings To Another User Receiving Device Using A Mobile User Device	16/028680	7/6/2018	
DIRECTV, LLC	System And Method For Providing Service To A Multi-Dwelling Unit	13/670137	11/6/2012	11/6/2032
DIRECTV, LLC	Method And System For Controlling A User Receiving Device Using Voice Commands	13/832680	3/15/2013	5/8/2034
DIRECTV, LLC	Method And System Of Bookmarking Content In A Mobile Device	13/832745	3/15/2013	2/23/2034

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DIRECTV, LLC	Method And System Of Bookmarking Content In A Mobile Device	16/750618	1/23/2020	
DIRECTV, LLC	Method And System For Setting And Receiving User Notifications For Content Available Far In The Future	14/575934	12/18/2014	9/9/2036
DIRECTV, LLC	Antenna Reflector Hydrophobic Coating And Method For Applying Same	14/753928	6/29/2015	8/4/2035
DIRECTV, LLC	Method And System For Operating User Receiving Devices With User Profiles	14/200565	3/7/2014	3/7/2034
DIRECTV, LLC	Method And System For Communicating Content To A Client Device By Pulling Content From A Publisher From A Content Delivery Network When First Requested By The Client Device	13/767499	2/14/2013	3/28/2035
DIRECTV, LLC	Method And Apparatus For Rapid And Scalable Testing Of Antennas	14/102431	12/10/2013	10/17/2034
DIRECTV, LLC	Systems And Methods For Immersive Viewing Experience	14/106242	12/13/2013	12/13/2033
DIRECTV, LLC	Method And System For Providing Access To Content Data For Previously Broadcasted Content	13/743230	1/16/2013	5/2/2033
DIRECTV, LLC	Method And System For Providing Access To Content Data For Previously Broadcasted Content	15/959748	4/23/2018	1/19/2033
DIRECTV, LLC	Method And System For Securely Performing Callbacks In A Content Distribution System	14/044399	10/2/2013	5/14/2034
DIRECTV, LLC	Method And System For Displaying Recommended Content Such As Movies Associated With A Cluster	13/803004	3/14/2013	11/5/2035
DIRECTV, LLC	Method And System For Recording Recommended Content Using Clustering	13/803121	3/14/2013	12/6/2033
DIRECTV, LLC	Systems And Methods For Controlling Purchasing And/Or Reauthorization To Access Content Using Quick Response Codes And Text Messages	14/587930	12/31/2014	2/9/2035

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DIRECTV, LLC	Systems And Methods For Controlling Purchasing And/Or Reauthorization To Access Content Using Quick Response Codes And Text Messages	15/421059	1/31/2017	12/31/2034
DIRECTV, LLC	Systems And Methods For Controlling Purchasing And/Or Reauthorization To Access Content Using Quick Response Codes And Text Messages	16/275935	2/14/2019	12/31/2034
DIRECTV, LLC	Method And System For Communicating From A Client Device To A Server Device In A Centralized Content Distribution System	14/137237	12/20/2013	4/29/2035
DIRECTV, LLC	Method And System For Communicating Between A Media Processor And Network Processor In A Gateway Device	14/871711	9/30/2015	9/30/2035
DIRECTV, LLC	Method And System For Communicating Between A Media Processor And Network Processor In A Gateway Device	15/426431	2/7/2017	10/16/2035
DIRECTV, LLC	Method And System For Communicating Between A Media Processor And Network Processor In A Gateway Device	16/021278	6/28/2018	9/30/2035
DIRECTV, LLC	Method For Combining Voice Signals To Form A Continuous Conversation In Performing A Voice Search	13/832924	3/15/2013	10/30/2033
DIRECTV, LLC	Method And System For Generating Dynamic Text Responses For Display After A Search	13/832874	3/15/2013	8/27/2036
DIRECTV, LLC	Method And System For Generating Dynamic Text Responses For Display After A Search	16/048918	7/30/2018	3/15/2033
DIRECTV, LLC	Method And System For Generating Dynamic Text Responses For Display After A Search	16/952702	11/19/2020	
DIRECTV, LLC	Method And System For Controlling A Centralized Content Distribution System With A Remote Control	14/587700	12/31/2014	12/31/2034
DIRECTV, LLC	Method And System For Controlling A Centralized Content Distribution System With A Remote Control	15/445090	2/28/2017	12/31/2034

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DIRECTV, LLC	Method And System For Allocating Resources In A Gateway Device	14/871628	9/30/2015	2/18/2036
DIRECTV, LLC	Method And System For Recording Recommended Content Within A User Device And Indicating Recording Capacity	13/803516	3/14/2013	10/2/2035
DIRECTV, LLC	Method And System For Recording Recommended Content Within A User Device And Playback Content From An Earlier Position When Live Content Is Selected	15/966154	4/30/2018	3/14/2033
DIRECTV, LLC	Campus Content Distribution Systems And Methods	14/992624	1/11/2016	8/5/2036
DIRECTV, LLC	Systems And Methods For Spotted Advertising And Control Of Corresponding User Interfaces And Transactions Via User Receiving Devices And Mobile Devices	14/592838	1/8/2015	1/8/2035
DIRECTV, LLC	Systems And Methods For Spotted Advertising And Control Of Corresponding User Interfaces And Transactions Via User Receiving Devices And Mobile Devices	16/430855	6/4/2019	1/8/2035
DIRECTV, LLC	Method And System For Prepositioning Content And Distributing Content In A Local Distribution System	14/488015	9/16/2014	9/16/2034
DIRECTV, LLC	Antenna Systems For Wireless Devices	13/966982	8/14/2013	3/28/2034
DIRECTV, LLC	Electronic Device Cooling Systems	13/967011	8/14/2013	3/27/2034
DIRECTV, LLC	Systems And Methods For Controlling A Single-Wire Multiswitch Device	14/693663	4/22/2015	8/8/2035
DIRECTV, LLC	Systems And Methods For Controlling A Single-Wire Multiswitch Device	15/887197	2/2/2018	4/22/2035
DIRECTV, LLC	Methods And Systems For Recording And Sharing Digital Video	14/590893	1/6/2015	1/6/2035
DIRECTV, LLC	Methods And Systems For Recording And Sharing Digital Video	15/444887	2/28/2017	1/6/2035
DIRECTV, LLC	Methods And Systems For Recording And Sharing Digital Video	15/789696	10/20/2017	1/6/2035

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DIRECTV, LLC	Peripheral Transponder Bonding Module	14/586141	12/30/2014	12/30/2034
DIRECTV, LLC	Methods And Systems For Variable Speed Playback With Bi-Directionality	14/592142	1/8/2015	2/6/2035
DIRECTV, LLC	Method And System For Using Hierarchical Metadata For Searching And Recording Content	14/454653	8/7/2014	8/7/2034
DIRECTV, LLC	Method And System For Using Hierarchical Metadata For Searching And Recording Content	15/268696	9/19/2016	8/7/2034
DIRECTV, LLC	Systems And Methods For Managing Television Tuners	14/586245	12/30/2014	12/30/2034
DIRECTV, LLC	Streamlined Viewing Of Recorded Programs Based On Markers	14/589831	1/5/2015	3/31/2035
DIRECTV, LLC	Streamlined Viewing Of Recorded Programs Based On Markers	15/950555	4/11/2018	1/5/2035
DIRECTV, LLC	Preventing Inadvertent Viewing Of Media Content	15/440272	2/23/2017	2/23/2037
DIRECTV, LLC	System And Method For Providing A Callback Proxy For A Set Top Box With Support of ISM-Band Wide Area Network Access	14/551404	11/24/2014	11/24/2034
DIRECTV, LLC	Systems And Methods For Frequency And Bandwidth Optimization With A Single-Wire Multiswitch Device	14/694513	4/23/2015	4/23/2035
DIRECTV, LLC	Systems And Methods For Frequency And Bandwidth Optimization With A Single-Wire Multiswitch Device	15/270065	9/20/2016	4/23/2035
DIRECTV, LLC	Systems And Methods For Frequency And Bandwidth Optimization With A Single-Wire Multiswitch Device	15/820496	11/22/2017	4/23/2035
DIRECTV, LLC	Bracket For Mounting A User Receiving Device	14/447150	7/30/2014	7/30/2034
DIRECTV, LLC	Television Distribution Component Enclosure	14/489776	9/18/2014	11/22/2034

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DIRECTV, LLC	Smart Channel Device	15/427538	2/8/2017	2/14/2037
DIRECTV, LLC	Smart Channel Device	16/579913	9/24/2019	
DIRECTV, LLC	Optical Character Recognition Text Export From Video Program	15/422861	2/2/2017	4/25/2037
DIRECTV, LLC	Systems And Methods For Integrating A Set-Top Box With Internet Content	15/376819	12/13/2016	12/13/2036
DIRECTV, LLC	Systems And Methods For Integrating A Set-Top Box With Internet Content	16/022168	6/28/2018	12/13/2036
DIRECTV, LLC	Context Sensitive Presentation Of Media Content	15/441164	2/23/2017	2/23/2037
DIRECTV, LLC	Method And System For Transferring The Display Of Content From A First Device To A Second Device	14/246835	4/7/2014	2/17/2035
DIRECTV, LLC	Method And System For Assembling Content Streams With Advertisements From Multiple Advertisement Vendors	14/469154	8/26/2014	
DIRECTV, LLC	Redundant Universal Transport Processing System	14/682968	4/9/2015	4/9/2035
DIRECTV, LLC	Devices For Presenting Video Program Segments In Accordance With Definition Documents	15/376522	12/12/2016	12/12/2036
DIRECTV, LLC	Devices For Presenting Video Program Segments In Accordance With Definition Documents	16/672622	11/4/2019	
DIRECTV, LLC	Method And System For Analyzing Performance Of A Gateway Device	14/871944	9/30/2015	4/8/2036
DIRECTV, LLC	Hybrid Wireless - Wireline Communications System And Method	14/630582	2/24/2015	7/24/2035
DIRECTV, LLC	Systems And Methods For Providing Advertisements To Point Of Presence Devices Including Mapping Different Types Of Messages Of Respective Content Providers	14/880871	10/12/2015	10/12/2035

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DIRECTV, LLC	Systems And Methods For Personalized Feature Setup And Parental Guidance Sensing	14/587496	12/31/2014	7/10/2035
DIRECTV, LLC	Systems And Methods For Personalized Feature Setup And Parental Guidance Sensing	16/294072	3/6/2019	
DIRECTV, LLC	Bracket For Holding A User Receiving Device	29/497990	7/30/2014	4/12/2030
DIRECTV, LLC	Bracket With Upper Extension For Holding A User Receiving Device	29/497996	7/30/2014	8/9/2030
DIRECTV, LLC	Cover For User Receiving Device	29/497998	7/30/2014	11/17/2029
DIRECTV, LLC	Customized Recommendations Of Multimedia Content Streams	15/438469	2/21/2017	1/14/2038
DIRECTV, LLC	Customized Recommendations Of Multimedia Content Streams	16/796389	2/20/2020	2/21/2037
DIRECTV, LLC	Customized Recommendations Of Multimedia Content Streams	17/350348	6/17/2021	
DIRECTV, LLC	Housing For Holding Television Distribution Components	29/502633	9/18/2014	11/24/2029
DIRECTV, LLC	Remote Display Of Satellite Receiver Information	14/586777	12/30/2014	12/30/2034
DIRECTV, LLC	Remote Display Of Satellite Receiver Information	15/341816	11/2/2016	12/30/2034
DIRECTV, LLC	Remote Display Of Satellite Receiver Information	15/861331	1/3/2018	12/30/2034
DIRECTV, LLC	Method For Capturing And Serving Content Based On User Location	14/598046	1/15/2015	1/15/2035
DIRECTV, LLC	Method And System For Communicating Inserted Material To A Client Device In A Centralized Content Distribution System	14/563460	12/8/2014	10/7/2035
DIRECTV, LLC	System And Method For Aligning A Multi-Satellite Receiver Antenna	14/586804	12/30/2014	2/27/2035

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DIRECTV, LLC	Method And System For Viewing Sports Content Within A Virtual Reality Environment	15/069723	3/14/2016	3/18/2036
DIRECTV, LLC	Method And System For Viewing Sports Content Within A Virtual Reality Environment	16/556712	8/30/2019	
DIRECTV, LLC	Method And System For Selecting And Viewing Sports Content And A Scoreguide In A Virtual Reality Device	15/069737	3/14/2016	3/14/2036
DIRECTV, LLC	Method And System For Resetting Processors Of A Gateway Device	14/871787	9/30/2015	11/7/2036
DIRECTV, LLC	Messaging Between Set Top Box And Head End Systems	14/629145	2/23/2015	2/23/2035
DIRECTV, LLC	Messaging Between Set Top Box And Head End Systems	15/364059	11/29/2016	2/23/2035
DIRECTV, LLC	Method And System For Preventing Congestion Of Communication Signals In A Gateway Device	14/871832	9/30/2015	10/14/2035
DIRECTV, LLC	Method And System For Performing Diagnostics In A Gateway Device Based On Monitoring Parameters	14/871864	9/30/2015	10/14/2035
DIRECTV, LLC	Method And System For Performing Diagnostics In A Gateway Device Based On Monitoring Parameters	16/140958	9/25/2018	9/30/2035
DIRECTV, LLC	Method And System For Performing Diagnostics In A Gateway Device Based On Monitoring Parameters	16/774811	1/28/2020	
DIRECTV, LLC	Method And System For Applying Quality Of Service Policies To Communication Signals Communicated To Non-Deep Packet Inspection Devices	14/871917	9/30/2015	9/30/2035
DIRECTV, LLC	Method And System For Synchronizing Playback Of Independent Audio And Video Streams Through A Network	14/869569	9/29/2015	6/17/2036
DIRECTV, LLC	Method And System For Synchronizing Playback Of Independent Audio And Video Streams Through A Network	17/326532	5/21/2021	

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DIRECTV, LLC	Hybrid Media Stream Delivery Using Multiple Network Connections	15/462761	3/17/2017	3/17/2037
DIRECTV, LLC	Method And System For Personalizing The Display Of Recordings Stored In A User Receiving Device	14/676020	4/1/2015	1/25/2036
DIRECTV, LLC	Method And System For Personalizing The Display Of Recordings Stored In A User Receiving Device	16/437341	6/11/2019	4/1/2035
DIRECTV, LLC	Dynamically Scaling The Color Temperature And Luminance Of A Display Output	15/476282	3/31/2017	3/31/2037
DIRECTV, LLC	Shared Control Of Vehicle Functions	15/441172	2/23/2017	2/23/2037
DIRECTV, LLC	Shared Control Of Vehicle Functions	16/238382	1/2/2019	2/23/2037
DIRECTV, LLC	Method And System For Resuming Content Playback After Content Playback At An In-Vehicle Infotainment System	14/983199	12/29/2015	12/29/2035
DIRECTV, LLC	Method Of Controlling A Content Displayed In An In-Vehicle System	14/983214	12/29/2015	3/15/2036
DIRECTV, LLC	Method Of Controlling A Content Displayed In An In-Vehicle System	15/901085	2/21/2018	12/29/2035
DIRECTV, LLC	Method Of Controlling A Content Displayed In An In-Vehicle System	16/735515	1/6/2020	12/29/2035
DIRECTV, LLC	Method Of Controlling A Content Displayed In An In-Vehicle System	17/218289	3/31/2021	
DIRECTV, LLC	Method And System For Displaying A Position Of A Vehicle At A Remotely Located Device	14/983231	12/29/2015	12/30/2035
DIRECTV, LLC	Method And System For Displaying A Position Of A Vehicle At A Remotely Located Device	16/518156	7/22/2019	12/29/2035
DIRECTV, LLC	Method And System For Obtaining Content Data In An In-Vehicle Infotainment System From A Set Top Box	14/982955	12/29/2015	12/29/2035

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DIRECTV, LLC	Method And System For Obtaining Content Data In An In-Vehicle Infotainment System From A Set Top Box	16/180150	11/5/2018	12/29/2035
DIRECTV, LLC	Method And Apparatus For Access To Media Content	15/446424	3/1/2017	3/1/2037
DIRECTV, LLC	Method And Apparatus For Access To Media Content	16/006407	6/12/2018	3/1/2037
DIRECTV, LLC	Content Scheduling	15/371172	12/6/2016	12/6/2036
DIRECTV, LLC	Switching Splitter And Method Of Operating The Same	14/635767	3/2/2015	3/5/2035
DIRECTV, LLC	Circular Video Player Controls	14/981530	12/28/2015	1/31/2039
DIRECTV, LLC	Circular Video Player Controls	17/326119	5/20/2021	
DIRECTV, LLC	Video Frame Bookmarking User Interface Component	14/981551	12/28/2015	12/28/2035
DIRECTV, LLC	Advertisement Viewing Bypass Prevention User Interface Component	14/981590	12/28/2015	7/24/2037
DIRECTV, LLC	Method And System For Directing Service Offerings Corresponding To A Customer Risk Profile	14/805564	7/22/2015	7/22/2035
DIRECTV, LLC	Enhanced Streaming Source Change	15/366122	12/1/2016	12/1/2036
DIRECTV, LLC	Enhanced Streaming Source Change	16/238870	1/3/2019	12/1/2036
DIRECTV, LLC	Context-Based Icon For Control Via A Touch Sensitive Interface	15/371186	12/6/2016	5/28/2037
DIRECTV, LLC	Systems And Methods For Provisioning Multi-Dimensional Rule Based Entitlement Offers	14/871835	9/30/2015	9/30/2035
DIRECTV, LLC	Systems And Methods For Provisioning Multi-Dimensional Rule Based Entitlement Offers	15/266539	9/15/2016	9/30/2035
DIRECTV, LLC	Systems And Methods For Provisioning Multi-Dimensional Rule Based Entitlement Offers	16/260835	1/29/2019	9/30/2035

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DIRECTV, LLC	Dynamic Segment Slicing For Faster Video Playback	14/734329	6/9/2015	2/5/2036
DIRECTV, LLC	Method And System For Performing A Function At A User Device By Combining Category Display Areas	15/085919	3/30/2016	3/30/2036
DIRECTV, LLC	Method And System For Performing A Function At A User Device By Combining Category Display Areas	15/982286	5/17/2018	3/30/2036
DIRECTV, LLC	Flexible Event Recording System And Method	15/910481	3/2/2018	3/7/2038
DIRECTV, LLC	Collective Determination Of Interesting Portions Of A Media Presentation, Media Tagging and Jump Playback	15/459225	3/15/2017	3/15/2037
DIRECTV, LLC	Single Button Selection To Facilitate Actions In A Communications Network	15/426545	2/7/2017	2/7/2037
DIRECTV, LLC	Single Button Selection To Facilitate Actions In A Communications Network	15/884530	1/31/2018	2/7/2037
DIRECTV, LLC	Search For Content Data In Content	15/371183	12/6/2016	12/6/2036
DIRECTV, LLC	Controlling Content Presentation And Display Of Program Information In An Electronic Program Guide	15/451077	3/6/2017	3/6/2037
DIRECTV, LLC	Network Address Translator (NAT) Traversal For Out Of Home Streaming	14/982326	12/29/2015	1/8/2036
DIRECTV, LLC	Edge Cache Segment Prefetching	15/440387	2/23/2017	7/22/2037
DIRECTV, LLC	Edge Cache Segment Prefetching	16/827093	3/23/2020	2/23/2037
DIRECTV, LLC	Edge Cache Segment Prefetching	17/334411	5/28/2021	
DIRECTV, LLC	Automated End-To-End Application Deployment In A Data Center	15/455919	3/10/2017	6/14/2037
DIRECTV, LLC	Automated End-To-End Application Deployment In A Data Center	17/092962	11/9/2020	
DIRECTV, LLC	Method And System For Providing Audio Signals To An In-Vehicle Infotainment System	14/982920	12/29/2015	7/8/2036

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DIRECTV, LLC	Method And System For Providing Audio Signals To An In-Vehicle Infotainment System	16/773128	1/27/2020	12/29/2035
DIRECTV, LLC	Method And System For Providing Audio Signals To An In-Vehicle Infotainment System	17/175721	2/15/2021	
DIRECTV, LLC	Interactive Alert For A Viewable Highlight	15/442044	2/24/2017	2/24/2037
DIRECTV, LLC	Method And Apparatus For Recording Advertised Media Content	15/461680	3/17/2017	3/17/2037
DIRECTV, LLC	Method And Apparatus For Recording Advertised Media Content	16/106884	8/21/2018	3/17/2037
DIRECTV, LLC	Method And Apparatus For Recording Advertised Media Content	17/015989	9/9/2020	
DIRECTV, LLC	Coordination Of Connected Home Devices To Provide Immersive Entertainment Experiences	15/433301	2/15/2017	2/15/2037
DIRECTV, LLC	Coordination Of Connected Home Devices To Provide Immersive Entertainment Experiences	17/063693	10/5/2020	
DIRECTV, LLC	Broadband Live Streaming Hub For A Media Processor	15/454798	3/9/2017	4/13/2037
DIRECTV, LLC	Broadband Live Streaming Hub For A Media Processor	16/418335	5/21/2019	3/9/2037
DIRECTV, LLC	Scrolling Score Guide With Quick Tune Feature	15/370590	12/6/2016	12/23/2036
DIRECTV, LLC	Providing Options To Live Stream Multimedia Content	15/426146	2/7/2017	5/11/2037
DIRECTV, LLC	System Method For Audio-Video Playback Recommendations	15/656859	7/21/2017	7/21/2037
DIRECTV, LLC	Dynamic Advertisement Insertion	15/460831	3/16/2017	3/16/2037
DIRECTV, LLC	Dynamic Advertisement Insertion	16/249091	1/16/2019	3/16/2037
DIRECTV, LLC	Method And System Of Notifying Users Using An In-Vehicle Infotainment System	14/982988	12/29/2015	1/27/2036

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DIRECTV, LLC	Outdoor Unit Configured For Customer Installation And Method Of Aligning Same	14/982271	12/29/2015	12/25/2036
DIRECTV, LLC	Adaptive Transmission System	09/950511	9/10/2001	9/10/2021
DIRECTV, LLC	Direct Broadcast Receiver Utilizing Lnb In Cascade	10/116266	4/4/2002	4/4/2022
DIRECTV, LLC	Technique For Data Compression By Decoding Binary Encoded Data	10/387177	3/12/2003	6/7/2027
DIRECTV, LLC	Method And Apparatus For Conditionally Processing, Storing, And Displaying Digital Channel Content In A Television Reception System	12/643736	12/21/2009	7/21/2021
DIRECTV, LLC	Method And Apparatus For Tuning Used In A Broadcast Data System	10/119202	4/9/2002	8/27/2027
DIRECTV, LLC	Graphical Tuning Bar	10/215234	8/8/2002	12/6/2022
DIRECTV, LLC	System And Method For Transmitting, Receiving And Displaying Advertisements	09/492725	1/27/2000	9/17/2021
DIRECTV, LLC	Method And System Of Efficient Spectrum Utilization By Communications Satellites	09/664940	9/19/2000	1/13/2022
DIRECTV, LLC	Method And System Of Efficient Spectrum Utilization By Communications Satellites	10/759766	1/16/2004	1/13/2022
DIRECTV, LLC	Antenna Positioning System And Method For Simultaneous Reception Of Signals From A Plurality Of Satellites	10/339918	1/10/2003	1/10/2023
DIRECTV, LLC	System And Method For Detecting A Link Outage	09/677524	9/29/2000	12/22/2021
DIRECTV, LLC	Method And Apparatus For Carrying Data Across High Definition Analog Component Video Interfaces	09/583058	5/30/2000	2/26/2022
DIRECTV, LLC	Method And Apparatus For Transmitting, Receiving, And Utilizing Audio/Visual Signals And Other Information	09/590417	6/8/2000	1/9/2024
DIRECTV, LLC	System Employing Threaded Space-Time Architecture For Transporting Symbols And Receivers For Multi-User Detection And Decoding Of Symbols	09/613938	7/11/2000	4/28/2023

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DIRECTV, LLC	Method And Constructions For Space-Time Codes For Psk Constellations For Spatial Diversity In Multiple-Element Antenna Systems	10/755981	1/13/2004	3/10/2022
DIRECTV, LLC	Broadcast Advertisement Adapting Method And Apparatus	11/043713	1/26/2005	12/26/2022
DIRECTV, LLC	Adaptive Return Link For Two-Way Satellite Communication Systems	10/464113	6/18/2003	6/18/2023
DIRECTV, LLC	Device And Method To Improve Integrated Presentation Of Existing Radio Services And Advanced Multimedia Services	09/587792	6/6/2000	9/6/2021
DIRECTV, LLC	Method Of Generating Space-Time Codes For Generalized Layered Space-Time Architectures	09/613607	7/11/2000	10/30/2021
DIRECTV, LLC	Method For Lossless Data Compression Using Greedy Sequential Grammar Transform And Sequential Encoding	09/711703	11/14/2000	2/1/2023
DIRECTV, LLC	System And Method Employing A Modular Decoder For Decoding Turbo And Turbo-Like Codes In A Communications Network	09/781658	2/12/2001	6/29/2022
DIRECTV, LLC	Interleaver Design For Parsed Parallel Concatenated Codes	09/734841	12/13/2000	4/3/2022
DIRECTV, LLC	System And Method For Brokering Auxiliary Data Broadcasting Services	09/559372	4/27/2000	10/30/2022
DIRECTV, LLC	Hybrid Satellite And Fiber Communications System	09/732837	12/7/2000	1/11/2024
DIRECTV, LLC	Distributed Media-Protection Systems And Methods To Operate The Same	11/499635	8/4/2006	3/18/2031
DIRECTV, LLC	Distributed Media-Aggregation Systems And Methods To Operate The Same	11/499636	8/4/2006	11/13/2030
DIRECTV, LLC	Method And Apparatus For Controlling Broadcast Programming Content	09/104713	6/25/1998	6/25/2023
DIRECTV, LLC	Reliable Event Broadcaster With Multiplexing And Bandwidth Control Functions	11/626707	1/24/2007	11/2/2028

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DIRECTV, LLC	Location-Specific Event Broadcasting	12/022914	1/30/2008	9/20/2029
DIRECTV, LLC	Location-Specific Event Broadcasting	13/355421	1/20/2012	1/24/2027
DIRECTV, LLC	Reliable Event Broadcaster With Multiplexing And Bandwidth Control Functions	13/418275	3/12/2012	1/24/2027
DIRECTV, LLC	Datacast With Hierarchical QoS	13/470129	5/11/2012	1/24/2027
DIRECTV, LLC	Location-Specific Event Broadcasting	13/705006	12/4/2012	1/24/2027
DIRECTV, LLC	Location Specific Event Broadcasting	14/804231	7/20/2015	1/24/2027
DIRECTV, LLC	Datacasting With Automatic Delivery Of Service Management System	12/436724	5/6/2009	5/6/2029
DIRECTV, LLC	Datacasting With Intermittent Listener Capability	12/436706	5/6/2009	5/6/2029
DIRECTV, LLC	Datacasting With Intermittent Listener Capability	13/648635	10/10/2012	5/6/2029
DIRECTV, LLC	Datacasting System With Intermittent Listener Capability	14/618948	2/10/2015	12/13/2029
DIRECTV, LLC	Mobile Media Platform	11/956138	12/13/2007	12/13/2027
DIRECTV, LLC	Mobile Media Platform	12/903125	10/12/2010	12/13/2027
DIRECTV, LLC	Time Synchronizing Of Distinct Video And Data Feeds That Are Delivered In A Single Mobile IP Data Network Compatible Stream	13/917078	6/13/2013	1/27/2029
DIRECTV, LLC	Time Synchronizing Of Distinct Video And Data Feeds That Are Delivered In A Single Mobile IP Data Network Compatible Stream	15/405805	1/13/2017	12/13/2027
DIRECTV, LLC	Mobile Media Platform	11/956162	12/13/2007	12/13/2027
DIRECTV, LLC	Mobile Media Platform	13/454489	4/24/2012	12/13/2027
DIRECTV, LLC	Mobile Media Platform	14/290441	5/29/2014	12/13/2027
DIRECTV, LLC	Seamlessly Switching Among Unicast, Multicast, And Broadcast Mobile Media Content	14/553813	11/25/2014	12/13/2027

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DIRECTV, LLC	Mobile Media Platform	11/956171	12/13/2007	12/13/2027
DIRECTV, LLC	Automated Content Tag Processing For Mobile Media	14/501560	9/30/2014	12/20/2027
DIRECTV, LLC	Automated Content Tag Processing For Mobile Media	16/109232	8/22/2018	12/13/2027
DIRECTV, LLC	Automated Content Tag Processing For Mobile Media	16/531442	8/5/2019	
DIRECTV, LLC	Mobile Media Platform	11/956186	12/13/2007	2/26/2032
DIRECTV, LLC	Mobile Media Platform	13/568873	8/7/2012	12/13/2027
DIRECTV, LLC	Mobile Media Pause And Resume	14/531370	11/3/2014	3/17/2029
DIRECTV, LLC	Mobile Media Pause And Resume	16/242254	1/8/2019	
DIRECTV, LLC	Mediation And Settlement For Mobile Media	11/956194	12/13/2007	3/13/2031
DIRECTV, LLC	Mediation And Settlement For Mobile Media	15/608650	5/30/2017	12/13/2027
DIRECTV, LLC	Mediation And Settlement For Mobile Media	16/103242	8/14/2018	12/13/2027
DIRECTV, LLC	Progressive Download Playback	12/418576	4/4/2009	6/1/2030
DIRECTV, LLC	Progressive Download Playback	14/503516	10/1/2014	9/12/2030
DIRECTV, LLC	Media Transcoding Based On Priority Of Media	15/845471	12/18/2017	5/22/2038
DIRECTV, LLC	Media Transcoding Based On Priority Of Media	17/008550	8/31/2020	