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1 2	Roderick G. Dorman (SBN 96908) rdorman@mckoolsmith.com MCKOOL SMITH P.C.	
3 4	300 South Grand Avenue, Suite 2900 Los Angeles, California 90071 Telephone: (213) 694-1200	
5	Douglas A. Cawley (TX SBN 04035500) (Pro	Hac Vice to be Filed)
6	dcawley@mckoolsmith.com Richard Kamprath (TX SBN 24078767) (Pro Hac Vice to be Filed)	
7	rkamprath@mckoolsmith.com	
8	MCKOOL SMITH P.C. 300 Crescent Court, Suite 1500	
9	Dallas, Texas 75201 Telephone: (214) 978-4000	
10	Joshua W. Budwin (TX SBN 24050347) (Pro	Hac Vice to be Filed)
11	jbudwin@mckoolsmith.com John B. Campbell (TX SBN 24036314) (Pro Hac Vice to be Filed) jcampbell@McKoolSmith.com Kristina S. Baehr (TX SBN 24080780) (Pro Hac Vice to be Filed) kbaehr@mckoolsmith.com	
12		
13		
14	MCKOOL SMITH P.C. 300 W. 6 th Street, Suite 1700	
15	Austin, Texas 78701	
16	Telephone: (512) 692-8700	
17	Attorneys for Plaintiff ROVI GUIDES, INC.	
18	UNITED STATES DISTRICT COURT	
19	CENTRAL DISTRICT OF CALIFORNIA	
20	ROVI GUIDES, INC.,) Case No.
21	Plaintiff,) Judge:
22	COMCAST CORPORATION; COMCAST)
23	CABLE COMMUNICATIONS, LLC;	COMPLAINT FOR PATENT
24	COMCAST CABLE COMMUNICATIONS MANAGEMENT, LLC; COMCAST) INFRINGEMENT
25	BUSINESS COMMUNICATIONS, LLC; COMCAST HOLDINGS CORPORATION;) DEMAND FOR JURY TRIAL
26	COMCAST SHARED SERVICES, LLC;	
27	COMCAST OF SANTA MARIA, LLC; and COMCAST OF LOMPOC, LLC,)
28	Defendants.)

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Plaintiff Rovi Guides, Inc. hereby brings this Complaint for patent infringement 1 against Comcast Corporation; Comcast Cable Communications, LLC; Comcast Cable Communications Management, LLC; Comcast Business Communications, LLC; 3 Comcast Holdings Corporation; Comcast Shared Services, LLC; Comcast of Santa 4 Maria, LLC; Comcast of Lompoc, LLC (all Comcast entities, collectively, Comcast or 5 Defendants) for infringement of U.S. Patent Nos. 7,827,585 (the '585 Patent); 6 9,294,799 (the '799 Patent); 9,369,741 (the '741 Patent); 9,578,363 (the '363 Patent); 7 9,621,956 (the '956 Patent); and 9,668,014 (the '014 Patent) (collectively, Asserted 8 9 Patents). Plaintiff, on personal knowledge as to its own acts, and upon information 10 and belief as to all others based on investigation, alleges as follows:

SUMMARY OF THE ACTION

For over a decade, Comcast has built its interactive cable business on the 1. back of Rovi's technology. Like every other major Pay-TV provider in the United States, Comcast licensed Rovi's technology for a fixed term. But unlike every one of its competitors, Comcast has refused to renew its license on acceptable terms. Although Comcast's license has expired, it continues to make, use, lease, offer to lease, and distribute products that not only practice Rovi's patented innovations, but also compete with Rovi's own Interactive Program Guide (IPG) products. This action seeks to end Comcast's unauthorized, infringing and competitive conduct.

Thirteen years ago, when Rovi's patent portfolio was less than half the 2. size it is today and when it did not yet include many of the innovations that consumers have come to demand, such as Video-on-Demand, whole-home DVR technology, and robust mobile access to and control of in-home set-top boxes, Comcast paid Rovi over \$250 million for a fixed-term license to Rovi's patent portfolio (License). The License also included important, non-monetary terms.

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COMPLAINT FOR PATENT INFRINGEMENT

3. Under the License, Comcast could use Rovi's patents in connection with
 Comcast's and its affiliates' Pay-TV systems. But the License expired on March 31,
 2016, and since then, Comcast has not only failed to remove its infringing products
 and services from the market, it continues to provide those infringing products and
 services to millions of its subscribers.

4. As part of the parties' negotiations in an attempt to renew Comcast's
License, Rovi provided Comcast notice of the Asserted Patents. Rovi also explained
that without renewing its License, Comcast would no longer have permission to make
use of Rovi's patented innovations. Instead of taking a license, Comcast has decided
to willfully infringe the Asserted Patents.

11 5. After the License expired, Rovi brought suit against Comcast in district court and in an enforcement action at the International Trade Commission (ITC) for 12 13 patent infringement, asserting a small number of patents in its portfolio. In November, the ITC issued orders in favor of Rovi barring Comcast from importing and 14 15 distributing Comcast's infringing set-top boxes (STBs) in the United States. See 16 generally In re Certain Digital Video Receivers & Hardware & Software Components Thereof, Inv. No. 337-TA-1001, Comm'n Op. (Dec. 6, 2016) (Final Public Version).¹ 17 18 And in response, Comcast has now disabled valuable features that infringed the patents asserted in that ITC action, drawing complaints from Comcast's subscribers 19 on public forums. 20

6. And yet still, notwithstanding the ITC's orders, Comcast continues to
refuse to renew its license to Rovi's technology. Comcast's decision to continue to
willfully infringe stands in stark contrast to its prior recognition of the need for a
license from Rovi.

²⁷ The district court cases are stayed in the Southern District of New York (Case Nos. 1:16-cv-09278 and 1:16-cv-09826).
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7. 1 Indeed, Comcast is the lone holdout. Virtually the entire Pay-TV industry 2 is licensed to Rovi's portfolio of IPG patents. And in 2015 and 2016, every major Pay-TV provider in the United States-except Comcast-renewed its license, including 3 AT&T, Verizon, Charter / Spectrum, and DISH. So, while every one of its 4 5 competitors pays a fair price for Rovi's innovative technology, Comcast alone attempts to use it for free. Rovi is forced, then, to bring this additional infringement 6 7 suit asserting additional patents in order to enforce its patent rights.

THE PARTIES

10 I.

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ROVI: A PIONEER IN MEDIA TECHNOLOGY

8. Plaintiff Rovi Guides, Inc. is a Delaware corporation, with a principal place of business at 2160 Gold Street, San Jose, California, 95002. Rovi Guides is a wholly-owned subsidiary of Rovi Corporation and is the owner of the Asserted Patents.

15 9. Rovi is a global leader in digital entertainment technology solutions. 16 Rovi's market-leading digital entertainment solutions enable the proliferation of access to media on electronic devices; these solutions include products and services 18 related to IPGs and other content discovery solutions, personalized search and 19 recommendation, advertising and programming promotion optimization, and other 20 data and analytics solutions to monetize interactions across multiple entertainment platforms. Rovi's solutions are used by companies worldwide in applications such as 22 cable, satellite, and internet protocol television (IPTV) receivers, including digital 23 television set-top boxes (STBs) and DVRs; PCs, mobile, and tablet devices; and other 24 means by which consumers connect to entertainment.

25 Rovi is, and has been, a pioneer and recognized leader in media 10. 26 technology, including the technology used to facilitate consumer access to and 27 discovery of television and other audiovisual media. Since introducing one of the first

1 on-screen electronic program guides in 1981, Rovi has continued to innovate to 2 develop products, services, and other solutions to connect consumers with 3 entertainment.

4 11. Thanks largely to those innovations, Rovi has amassed a portfolio of over 1,200 issued U.S. patents, including the Asserted Patents, and 500 pending U.S. patent 5 applications, more than 250 of which were filed after Comcast's license expired. Rovi 6 7 has added to its patent portfolio through strategic acquisitions of groundbreaking companies, such as Veveo, and of patent portfolios from world-class innovators, such 8 as Microsoft. Rovi's patented inventions are used daily by consumers of media 9 content, and are "must-haves" for television, other media service providers, and the 10 11 consumer electronics industry that supports them.

12 In recognition of the importance and value of Rovi's patented 12. technologies and Rovi's role as an innovator, every major U.S. Pay-TV provider, 13 including Comcast in the past, has taken a license to a portfolio of Rovi's patents. 14

II. **DEFENDANTS**

Upon information and belief, Comcast Corporation is a Pennsylvania 17 13. corporation, with a principal place of business at One Comcast Center, 1701 John F. 18 19 Kennedy Blvd., Philadelphia, Pennsylvania, 19103. Through its wholly-owned subsidiaries, Comcast Corporation provides "Comcast" branded services, including 20 Xfinity digital video, audio, and other content services to customers. Subscribers to 21 Comcast's Xfinity television services receive a receiver, such as a set-top box. Upon 22 information and belief, Comcast Corporation develops the infringing Xfinity services 23 and equipment and provides the infringing receivers to customers. 24

Upon information and belief, Comcast Cable Communications, LLC is a 14. 25 Delaware limited liability company, with a principal place of business at One Comcast 26 Center, 1701 John F. Kennedy Blvd., Philadelphia, Pennsylvania, 19103. Upon 27

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information and belief, Comcast Cable Communications, LLC is a subsidiary of
 Comcast Corporation. Upon information and belief, Comcast Cable Communications,
 LLC, jointly with the other Defendants, develops the infringing Xfinity services and
 equipment and provides infringing receivers to customers.

Upon information and belief, Comcast Cable Communications 5 15. 6 Management, LLC is a Delaware limited liability company, with a principal place of business at One Comcast Center, 1701 John F. Kennedy Blvd., Philadelphia, 7 Pennsylvania, 19103. Upon information and belief, Comcast Cable Communications 8 Management, LLC is a subsidiary of Comcast Corporation. Upon information and 9 10 belief, Comcast Cable Communications Management, LLC, jointly with the other 11 Defendants, develops the infringing Xfinity services and equipment and provides 12 infringing receivers to customers.

13 16. Upon information and belief, Comcast Business Communications, LLC
14 is a Pennsylvania limited liability company, with a principal place of business at One
15 Comcast Center, 1701 John F. Kennedy Blvd., Philadelphia, Pennsylvania, 19103.
16 Upon information and belief, Comcast Business Communications, LLC is a subsidiary
17 of Comcast Corporation. Upon information and belief, Comcast Business
18 Communications, LLC, jointly with the other Defendants, develops the infringing
19 Xfinity services and equipment and provides infringing receivers to customers.

17. Upon information and belief, Comcast Holdings Corporation is a
Pennsylvania corporation, with a principal place of business at One Comcast Center,
1701 John F. Kennedy Blvd., Philadelphia, Pennsylvania, 19103. Upon information
and belief, Comcast Holdings Corporation is a subsidiary of Comcast Corporation.
Upon information and belief, Comcast Holdings Corporation, jointly with the other
Defendants, develops the infringing Xfinity services and equipment and provides
infringing receivers to customers.

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COMPLAINT FOR PATENT INFRINGEMENT

1 18. Upon information and belief, Comcast Shared Services, LLC is a 2 Delaware corporation, with a principal place of business at 330 N. Wabash Ave. 22, 3 Chicago, IL, 60611-3586. Upon information and belief, Comcast Shared Services, LLC is a subsidiary of Comcast Corporation. Upon information and belief, Comcast 4 5 Shared Services, LLC, jointly with the other Defendants, develops the infringing 6 Xfinity services and equipment and provides infringing receivers to customers.

Upon information and belief, Comcast of Santa Maria, LLC is a 7 19. 8 Delaware corporation, with a principal place of business at 685 East Betteravia Rd., 9 Santa Maria, CA 93454. Upon information and belief, Comcast of Santa Maria, LLC 10 is a subsidiary of Comcast Corporation. Upon information and belief, Comcast of Santa Maria, LLC, jointly with the other Defendants, develops the infringing Xfinity 11 services and equipment and provides infringing receivers to customers. 12

13 Upon information and belief, Comcast of Lompoc, LLC is a Delaware 20. corporation, with a principal place of business at 1145 North H Street, Suite B, 14 Lompoc, CA 93436. Upon information and belief, Comcast of Lompoc, LLC is a 15 subsidiary of Comcast Corporation. Upon information and belief, Comcast of 16 Lompoc, LLC, jointly with the other Defendants, develops the infringing Xfinity 17 18 services and equipment and provides infringing receivers to customers.

JURISDICTION AND VENUE

This is an action arising under the patent laws of the United States, 35 21. U.S.C. §§ 1, et seq. Accordingly, this Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 (federal question) and 1338(a) (action arising under an Act of Congress relating to patents). Venue is proper in this judicial district under 28 U.S.C. §§ 1391 and 1400(b).

More specifically, this action for patent infringement involves Comcast's 22. 26 manufacture, use, sale and/or lease, offer for sale and/or lease, and/or importation into 27

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the United States of infringing receivers, including STBs (and their peripheral devices, 1 2 such as remote control units), having hardware and software components, including, 3 in particular, IPG software, alone or in conjunction with Comcast servers and/or 4 mobile applications (the Accused Products) that are used in and with Comcast's Xfinity video services. 5

6 23. This action also involves Comcast's attempts and offers to license, or 7 otherwise provide to other service providers, products which are not licensed to the 8 Asserted Patents, including Comcast's X1 IPG Product (an Accused Product), which 9 is designed to practice one or more claims of the Asserted Patents, and which 10 competes with Rovi's own IPG products.

11 The Accused Products include Comcast digital video receivers and 24. related hardware and software, including at least the associated IPG software. Such 12 13 Accused Products include at least the Comcast Xfinity receivers with the following 14 model numbers: ARRIS XG1v1 MX011ANM, ARRIS XG1v3 AX013ANM, ARRIS 15 XG1v1 MX011ANC, ARRIS XG1v3 AX013ANC, ARRIS XG1v4-A AX014ANM, 16 ARRIS XG1v4-A AX014ANC, Pace RNG150 PCRNG150BNMD, Pace RNG150 17 PCRNG150BNCD, Pace RNG150 PR150BNM, Pace RNG150 PR150BNC, Pace 18 XG1v1 PCX001ANMD, Pace XG1v1 PCX001ANCD, Pace XG1v3 PX013ANM, 19 Pace XG1v3 PX013ANC, Pace XG2v2-P PX022ANC, Pace XG2v2-P PX022ANM, 20 Pace XiD-P PXD01ANI, Pace Xi3v2 PX032ANI, Pace Xi5-P PX051AEI, Cisco 21 RNG150N, Cisco XiD-C CXD01ANI, Humax Xi3-H HX003AN, Samsung 22 RNG150N SR150BNM, Samsung RNG150N SR150BNC, Samsung XG2v2-S 23 SX022ANC, and Samsung XG2v2-S SX022ANM. Accused Products also include 24 Comcast's X1 remote and streaming TV apps.²

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2 See Set up the XFINITY TV Remote App, XFINITY, https://www.xfinity.com/support/xfinity-apps/setting-up-the-cable-tv-app/_(last visited Dec. 28, 2017); Xfinity Stream App, XFINITY, https://www.xfinity.com/get-stream (last visited Dec. 28, 2017).

25. 1 Upon information and belief, Comcast operates at least two Xfinity stores 2 physically located in the Central District of California. Upon information and belief, 3 Comcast conducts its regular, established business at these locations. These Xfinity stores provide infringing products to customers in this District. Comcast lists these 4 Xfinity stores on its website and holds them out as places where customers can obtain 5 infringing products.³ Upon information and belief, Comcast owns and/or leases the 6 premises where these Xfinity stores are located. Upon information and belief, these 7 8 Xfinity stores are staffed by persons directly employed by Comcast, many of whom 9 live in this District.

26. This Court has general and/or specific personal jurisdiction over Comcast
Corporation, and venue is proper, in part because Comcast Corporation, directly
and/or in combination with its subsidiaries and/or through its agents, does continuous
and systematic business in this district, including by providing infringing products and
services to residents of the Central District of California, by providing infringing
products and services that it knew would be used within this district, and/or by
participating in the solicitation of business from residents of this district.

17 In addition, upon information and belief, Comcast Corporation, directly 27. 18 or through its subsidiaries, places infringing products in the stream of commerce, 19 which is directed at this district, with the knowledge and/or understanding that such 20 products will be sold, leased, or otherwise provided to customers within this district. 21 In addition, upon information and belief, Comcast Corporation, directly or through its 22 subsidiaries, employs individuals within the Central District of California, including 23 employees who provide infringing products and services to customers here, and 24 maintains offices and facilities here. Comcast Corporation, directly or through its

³ See, e.g., 685 East Betteravia Rd, COMCAST,

27 https://www.xfinity.com/local/ca/santa-maria/685-east-betteravia-rd.html (last visited Dec. 28, 2017).
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COMPLAINT FOR PATENT INFRINGEMENT

subsidiaries, operates highly commercial websites through which regular sales and/or
 leases of products and/or sales of services are made to customers in this district,
 including products and services that, upon information and belief, infringe the
 Asserted Patents.

5 28. This Court has general and/or specific personal jurisdiction over Comcast Cable Communications, LLC, and venue is proper, in part because Comcast Cable 6 7 Communications, LLC, directly and/or in combination with other Comcast entities and/or through its agents, does continuous and systematic business in this district 8 9 including by providing infringing products and services to residents of the Central 10 District of California, by providing infringing products and services that it knew would be used within this district, and/or by participating in the solicitation of 11 12 business from residents of this district. In addition, upon information and belief, 13 Comcast Cable Communications, LLC, directly or through its subsidiaries, places infringing products in the stream of commerce, which is directed at this district, with 14 15 the knowledge and/or understanding that such products will be sold, leased, or 16 otherwise provided to customers within this district. In addition, upon information and 17 belief, Comcast Cable Communications, LLC, directly or through its subsidiaries, 18 employs individuals within the Central District of California, including employees 19 who provide infringing products and services to customers here, and maintains offices 20 and facilities here. Comcast Cable Communications, LLC, directly or through its 21 subsidiaries, operates highly commercial websites through which regular sales and/or 22 leases of products and/or sales of services are made to customers in this district, 23 including products and services that, upon information and belief, infringe the 24 Asserted Patents.

25 29. This Court has general and/or specific personal jurisdiction over Comcast
26 Cable Communications Management, LLC, and venue is proper, in part because
27 Comcast Cable Communications Management, LLC, directly and/or in combination

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1 with other Comcast entities and/or through its agents, does continuous and systematic business in this district including by providing infringing products and services to 2 residents of the Central District of California, by providing infringing products and 3 4 services that it knew would be used in this district, and/or by participating in the solicitation of business from residents of this district. In addition, upon information 5 and belief, Comcast Cable Communications Management, LLC, directly or through its 6 subsidiaries, places infringing products in the stream of commerce, which is directed 7 at this district, with the knowledge and/or understanding that such products will be 8 9 sold, leased, or otherwise provided to customers within this district. In addition, upon 10 information and belief, Comcast Cable Communications Management, LLC, directly or through its subsidiaries, employs individuals within the Central District of 11 12 California, including employees who provide infringing products and services to 13 customers here, and maintains offices and facilities here. Comcast Cable 14 Communications Management, LLC, directly or through its subsidiaries, operates highly commercial websites through which regular sales and/or leases of products 15 and/or sales of services are made to customers in this district, including products and 16 17 services that, upon information and belief, infringe the Asserted Patents.

18 This Court has general and/or specific personal jurisdiction over Comcast 30. 19 of Santa Maria, LLC and venue is proper, in part, because Comcast of Santa Maria, 20 LLC, directly and/or in combination with other Comcast entities and/or through its 21 agents, does continuous and systematic business in this district including by providing infringing products and services to residents of the Central District of California, by 22 providing infringing products and services that it knew would be used within this 23 24 district, and/or by participating in the solicitation of business from residents of this district. In addition, upon information and belief, Comcast of Santa Maria, LLC, 25 directly or through its subsidiaries, places infringing products within the stream of 26 27 commerce, which is directed at this district, with the knowledge and/or understanding

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1 that such products will be sold, leased, or otherwise provided to customers within this 2 district. In addition, upon information and belief, Comcast of Santa Maria, LLC, 3 directly or through its subsidiaries, has a regular and established business within the Central District of California, at least at the Comcast store and service center at 685 4 5 East Betteravia Rd., Santa Maria, CA 93454. In addition, upon information and belief, Comcast of Santa Maria, LLC, directly or through its subsidiaries, employs 6 individuals within the Central District of California, including employees who provide 7 8 infringing products and services to customers here, and maintains offices and facilities here. Comcast of Santa Maria, LLC, directly or through its subsidiaries, operates 9 10 highly commercial websites through which regular sales and/or leases of products 11 and/or sales of services are made to customers in this district, including products and 12 services that, upon information and belief, infringe the Asserted Patents.

13 31. This Court has general and/or specific personal jurisdiction over Comcast of Lompoc, LLC, and venue is proper, in part because Comcast of Lompoc, LLC, 14 15 directly and/or in combination with other Comcast entities and/or through its agents, does continuous and systematic business in this district including by providing 16 17 infringing products and services to residents of the Central District of California, by providing infringing products and services that it knew would be used in this district, 18 19 and/or by participating in the solicitation of business from residents of this district. In 20 addition, upon information and belief, Comcast of Lompoc, LLC, directly or through its subsidiaries, places infringing products in the stream of commerce, which is 21 directed at this district, with the knowledge and/or understanding that such products 22 23 will be sold, leased, or otherwise provided to customers in this district. In addition, 24 upon information and belief, Comcast of Lompoc, LLC, directly or through its 25 subsidiaries, has a regular and established business within the Central District of 26 California, at least at the Comcast store and service center at 1145 North H Street, Suite B, Lompoc, CA 93436. In addition, upon information and belief, Comcast of 27

Lompoc, LLC, directly or through its subsidiaries, employs individuals in the Central
 District of California, including employees who provide infringing products and
 services to customers here, and maintains offices and facilities here. Comcast of
 Lompoc, LLC, directly or through its subsidiaries, operates highly commercial
 websites through which regular sales and/or leases of products and/or sales of services
 are made to customers in this district, including products and services that, upon
 information and belief, infringe the Asserted Patents.

This Court has general and/or specific personal jurisdiction over the 32. 8 remaining Defendants, and venue is proper, in part because said Defendants, directly 9 10 and/or in combination with Comcast Corporation and/or other Comcast Corporation 11 subsidiaries, and/or through their agents, do continuous and systematic business in this 12 district including by providing infringing products and services to residents of the Central District of California, by providing infringing products and services that it 13 14 knew would be used within this district, and/or by participating in the solicitation of 15 business from residents of this district.

33. Venue is further proper in this Court because the Plaintiff maintains its
business in this District. One of Rovi's largest offices is situated at 2233 N. Ontario
St., Burbank, CA 91504 and employs approximately 85 employees, including key
witnesses who will testify in this action.

34. Upon information and belief, venue is proper in the Central District of
California because at least four of the non-employee inventors reside in this district.

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COMPLAINT FOR PATENT INFRINGEMENT

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FACTUAL BACKGROUND

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ROVI'S HISTORY OF INNOVATION AND COMMERCIAL SUCCESS

35. Since the launch of TV Guide Magazine in 1953, the Rovi family of 4 companies (which includes, through mergers, joint ventures, and acquisitions, United Video, TV Guide Onscreen, StarSight Telecast, Prevue, TV Guide, Video Guide, Gemstar, Aptiv Digital, Macrovision, Veveo, and FanTV) has been a pioneer and recognized leader in media technology, including the technology used to facilitate 8 consumer access to television and other audiovisual media. Today, Rovi's market-9 leading digital entertainment solutions enable the proliferation of access to media on 10 electronic devices; these solutions include products and services related to IPGs and other content discovery solutions, personalized search and recommendation, 12 advertising and programming promotion optimization, and other data and analytics solutions to monetize interactions across multiple entertainment platforms. Rovi's 14 solutions are used by companies worldwide in applications such as cable, satellite, and 15 internet protocol television (IPTV) receivers (including digital television STBs and 16 digital video recorders (DVRs)); PCs, mobile, and tablet devices; and other means by 17 which consumers connect to entertainment.

36. In particular, Rovi has developed the substantial majority of the pioneering advances in IPG technology and related functionality for subscriptionbased television broadcasting.

In 1981, a Rovi family of companies introduced one of the first, if not the 37. first, on-screen electronic program guide (EPG). This EPG, displayed on a dedicated cable channel, allowed Pay-TV providers to provide scrolling on-screen television listings to their customers throughout the day. Rovi's early EPG product was widely adopted by North American cable systems, and became the way in which consumers discovered the content they desired.

38. In the late 1980s, another one of the Rovi family of companies invented
 the VCR Plus®, which significantly simplified programming of videocassette
 recorders, enabling television subscribers to more easily record the content they
 desired. VCR Plus® was a resounding success, and helped establish the Rovi family
 of companies as the frontrunner in the program guide industry by broadly licensing its
 VCR Plus® product and related technologies.

39. Around 1994, another of the Rovi family of companies launched the first
IPG services designed for use in Pay-TV television receivers. These early IPGs were
full-screen grid guides that displayed television program listings by time and channel
in a two-dimensional grid. Using a remote control, a user could interact with the
guides to see, for example, what was on television at a later time or on a different
channel, instead of depending on the automated scrolling of a traditional on-screen
guide.

Rovi's IPG technologies today allow for multi-screen entertainment 14 40. across a variety of user devices (e.g., seamless access to the same media from multiple 15 devices and device types, like a television and mobile device), and provide 16 17 customizable listings for televisions, receivers, game consoles, and mobile devices, thereby allowing consumers to find, discover, and enjoy the content they want, when 18 19 they want it, and where they want to access it. These and other innovations help users navigate an increasingly overwhelming amount of content, and discover and access 20 21 entertainment they desire on virtually any platform or device.

41. To maintain Rovi's leadership position in this industry, Rovi has invested
and continues to invest significant resources in the design, development and licensing
of its IPGs and related technologies used by television service providers (as well as
others in the digital entertainment industry). Since 2014 alone, Rovi has invested over
\$331 million in research and development. Furthermore, Rovi has over 700 U.S.-

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based, full-time employees supporting the development of new products and
 platforms.

3 42. Rovi has incorporated its technological innovations resulting from its 4 significant research and development into its commercial products. For example, Rovi's i-Guide® and Passport® Guide are IPGs that provide comprehensive listings, 5 6 intuitive search capabilities, advanced DVR and Video-on-Demand functionality, and HD support. Rovi's Advanced Search and Recommendation (ASR) software is a 7 product that provides an advanced television experience through comprehensive 8 9 listings and intuitive search capabilities for expansive content offerings and state-of-10 the-art DVR and VOD functionality. In addition, Rovi is investing heavily in nextgeneration IPTV solutions. 11

43. The value of Rovi's innovative solutions has been recognized by
numerous leading Pay-TV service providers, who license these technologies and
solutions from Rovi. As of December 31, 2015, Rovi's technology was used by over
184 million subscribers worldwide.

In addition, Rovi's innovative IPG related technologies have been 16 44. 17 recognized through numerous industry awards and accolades. For example, in 2012 Rovi was awarded a Technology and Engineering Emmy® Award for its "Pioneering 18 19 On-Screen Interactive Program Guides" that assist "viewer[s] in rapidly locating their 20 desired program." These Emmy® awards are designed to recognize "developments . . 21 . involved in engineering technologies which either represent so extensive an 22 improvement on existing methods or are so innovative in nature that they materially have affected the transmission, recording, or reception of television."⁴ 23

45. Rovi's history of innovation is also reflected in the extensive patent
coverage that Rovi has obtained for its inventions. This portfolio, which includes

- 26
- 27 ⁴ Technology & Engineering, THE NATIONAL ACADEMY OF TELEVISION ARTS & SCIENCES, http://emmyonline.com/tech (last visited Dec. 28, 2017).
 28 ¹⁵

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more than 4,500 issued or pending patents worldwide, is a direct result of Rovi's 1 substantial and ongoing investment in research and development. The Asserted 2 Patents are reflective of this history of innovation, embodying a number of firsts in the 3 development of IPG-related technologies. 4

Rovi's current commercial products, including in particular its i-Guide®, 46. Passport® Guide, and TotalGuide xD IPG solutions, as well as ASR, embody Rovi's 6 patented technology, including certain of the Asserted Patents.

8 47. The strength of Rovi's patent portfolio has been recognized by the 9 entertainment industry. Every major U.S. Pay-TV provider, including AT&T (which 10 recently acquired DirecTV), Verizon, Charter/Spectrum, and Dish/EchoStar, among 11 others, has acknowledged the value of Rovi's innovations by taking licenses from Rovi for its patents covering these innovations-and renewing those licenses in the 12 last two years. Comcast itself once licensed Rovi's portfolio for over \$250 million for 13 a fixed term. Rovi has also licensed its patent portfolio to many leading content 14 providers, including both traditional media (cable, satellite, IPTV) and new media 15 (online, mobile) video providers, as well as manufacturers and distributors of 16 receivers and other consumer electronic devices. Yet, despite this widespread 17 recognition of the value and importance of Rovi's patent portfolio, Comcast decided 18 19 to free ride, refusing to renew its license and compensate Rovi.

20 Rovi's long-term financial success depends in part on its ability to 48. establish, maintain, and protect its proprietary technology through patents. Comcast's 21 22 infringement presents significant and ongoing harm to Rovi's business.

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II. COMCAST HAS LONG BENEFITED FROM ITS USE OF ROVI'S PATENTED TECHNOLOGIES

49. Prior to Comcast first licensing Rovi's patents, it measured business success with reference to how many subscribers it had. Comcast did not historically measure its business success by the quality of the services it provided to its customers.
Comcast touted itself in its 2002 10K as being the "largest cable operator in the United States."

50. Nonetheless, beginning in or around 2004, Comcast began attributing
revenue growth to its "advanced services" including Video-on-Demand (VOD) and
digital-video-recording (DVR). Comcast recognized that its future business success
depended on product differentiation from both other cable operators and satellite
providers—product differentiation provided by offering advanced services to its
customers.

In 2004, to secure the growth in its "advanced services," Comcast entered 51. 14 into a license agreement with Gemstar (a forerunner to Rovi) (2004 Agreement) which 15 Comcast described in SEC filings as an effort "to acquire and develop technology that 16 will drive product differentiation and new applications and extend our nationwide 17 fiber-optic network"⁵ and enhance Comcast's IPG platform to improve Comcast's 18 ability to compete with its competitors. Importantly, the 2004 Agreement was not a 19 sale of technology from Gemstar to Comcast by which Comcast "acquired" the 20 technology from Gemstar; it was a license for a fixed term during which Comcast had 21 permission from Gemstar to use that technology for specific purposes, but only until 22 the license expired. The 2004 Agreement included a Joint Venture with Gemstar 23

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See Comcast Annual Report 2004 at 18, available at
 http://www.annualreports.com/HostedData/AnnualReportArchive/c/NASDAQ_CMC
 SA_2004.pdf.

called GuideWorks, under which Gemstar would help Comcast develop a next
 generation IPG platform, as well as a license to Gemstar's guidance patent portfolio.

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52. Comcast's use of Rovi's (then Gemstar's) technology to develop and enhance IPGs to be offered by Comcast is evidenced, among other ways, by Comcast's description of the 2004 Agreement in the Comcast 2006 10K SEC filing. Comcast stated, "This [2004 Agreement] allows us to utilize Gemstar's intellectual property and technology and the TV Guide brand and content on our interactive program guides. . . . In addition, we and Gemstar formed an entity to develop and enhance interactive programming guides."⁶

10 53. In order to further secure improved products and services, in 2004,
11 "Comcast sign[ed] strategic agreements with Gemstar-TV Guide and Microsoft to
12 develop enhancements to the user interface and the functionality of its service
13 offerings."⁷

14 54. Comcast's 10K SEC filings from 2004 to date consistently evidence 15 Comcast's recognition of the importance to its profitability and success of the 16 technology needed to provide advanced services in connection with its digital cable 17 and high-speed internet services, including VOD, high-definition television (HDTV) 18 programming and DVRs. In fact, in its 2004 10K, Comcast noted that its "subscriber 19 growth is attributable to new and improved products and advanced services in our digital cable and high-speed Internet services."⁸ Each filing thereafter provides 20 21 additional evidence that Comcast recognized the importance of its advanced services. 22 Increased competition from telecommunications providers, ISPs, and satellite

Id. at 48.

26 See Comcast Timeline, COMCAST, http://corporate.comcast.com/newsinformation/timeline (last visited Dec. 28, 2017).

See Comcast Annual Report 2004 at 18.

companies in the provision and delivery of new and advanced services was, and since
 2004 has been, one of Comcast's greatest competitive concerns.

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55. Rovi is informed and believes that the technology Rovi made available to 4 Comcast during the term of the 2004 Agreement was foundational to Comcast's ability from 2004 to the present to offer new and advanced services, to grow its 5 business, and to develop its own IPG and advanced service platforms, and throughout 6 7 that period Comcast personnel were aware of these facts. In 2010, Comcast and Rovi 8 terminated their joint venture, while at the same time Comcast reaffirmed its need for Rovi technology by entering into an expanded patent license agreement with Rovi. 9 10 Indeed, Rick Rioboli, SVP, Comcast Metadata Products and Search Services, remarked that "Rovi has been a very important partner of ours for many years." 11

12 56. In 2012, during the pendency of its soon-to-expire license to Rovi's
13 patents, Comcast launched the X1 IPG Product, which it describes as "a cloud-enabled
14 video platform that transformed the TV into an interactive, integrated entertainment
15 experience."⁹

16 57. In 2014, also during the pendency of its soon-to-expire License to Rovi's
17 patents, Comcast introduced the next generation of its X1 IPG Product, which it
18 describes as "designed to make navigation, search and discovery of content easier and
19 quicker than ever before. The X1 IPG Product gives customers an interactive TV
20 experience, providing instant access to all of their Entertainment."¹⁰

21 58. As set forth herein, Comcast's X1 IPG Product is designed to and does
22 infringe at least one claim of each of the Asserted Patents.

- 25 See Our Story, COMCAST, http://corporate.comcast.com/our-company/our-story, archived at
- 26 https://web.archive.org/web/20170519044316/http://corporate.comcast.com/our 27 company/our-story.
- 27 || 10 28 ||

Id.

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59. Comcast has an installed base of more than 12 million X1 users and is
 continuing to market that product throughout the United States in an attempt to further
 expand the reach of its X1 IPG Product.

60. Even today, Comcast recognizes the critical role that its infringing IPG platform has in driving product differentiation and consumer demand for its products and services. For example, Comcast recently explained to the FCC that "the interface is how MVPDs [multichannel video program distributors] . . . differentiate themselves in a highly competitive marketplace."¹¹ Comcast further explained that, "[f]aced with fierce competition, providers are intent on giving consumers the flexibility they demand to access video programming on the devices of their choice, and delivering more value to customers."¹²

61. On March 31, 2016 Comcast's license to use the Rovi technology
expired. Comcast has refused to execute a new license; yet continues to practice the
inventions claimed in Rovi's patents, and continues to offer, lease, and distribute the
X1 product and enhanced IPG platform that not only infringes Rovi's patents, but
could not and would not ever have been lawfully developed but for the license of
Rovi's technology granted to Comcast in the 2004 Agreement, which has now
expired.

See Comments of Comcast Corporation and NBCUniversal Medica, LLC, at 34 n.63 (April 22, 2016), available at http://corporate.comcast.com/images/2016-04-22-AS-FILED-Comcast-DSTAC-STB-NPRM-Comments.pdf. *Id.* at 3. COMPLAINT FOR PATENT INFRINGEMENT

III. COMCAST AND ROVI ARE COMPETITORS IN THE DEVELOPMENT AND PROVISION OF IPG SOLUTIONS TO CABLE PROVIDERS

62. Comcast markets and licenses its Accused Products, including the X1 IPG Product, in the United States, to other Pay-TV providers.

63. Comcast describes its Accused Products, including the X1 IPG Product, as delivering the simplest, fastest and most complete way to access all your entertainment on all your screens. Comcast explains that with its Accused Products, including the X1 IPG Product, a user experiences TV and Internet together like never before with advanced search, personalized recommendations, apps at home and on the go, and the fastest in-home WiFi for all rooms, all devices, all the time.

64. Rovi also markets innovative guide products that compete with Comcast's Accused Products, including the X1 IPG Product, in the United States.

65. Since 1981, Rovi has improved the traditional grid-based TV guide to meet consumer expectations. Today, Rovi's guides integrate program information, personalized recommendations, related Internet resources, and social media for various devices. Rovi's guides, including its new next-generation guides, offer global, multi-screen entertainment offerings for service providers and application developers. Rovi's guides provide customizable listings for TVs, set-top boxes, game consoles, mobile devices and websites, so consumers can find and discover content when and where they want.

66. Rovi's guide products compete with Comcast's Accused Products, including the X1 IPG Product, in the United States. For example, Cox Communications has, for the past several years, licensed Rovi's Passport Guide IPG platform, which Cox has deployed to millions of subscribers. Upon information and belief, Comcast marketed its X1 IPG Product to Cox, and Cox has already begun deploying the X1 platform to new subscribers as a replacement to Rovi's platform.

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67. Similarly, Cequel III Programming, LLC d/b/a Suddenlink
 Communications (Suddenlink) has, for the past several years, licensed Rovi's i-Guide
 IPG platform, which Suddenlink has deployed to hundreds of thousands of
 subscribers. Comcast has also marketed its X1 syndication product to Suddenlink, in
 direct competition to Rovi.

6 68. In addition to marketing its X1 IPG Product to other Pay-TV providers, upon information and belief, Comcast has continued to promote its infringing 7 products and services by announcing, on April 20, 2016, the launch of its Xfinity TV 8 9 Partner Program, in order to encourage and enable television and consumer electronics 10 companies to implement Comcast's Xfinity IPG app, which "will provide access to [Comcast's] TV cable service, ... live and on demand programming and cloud DVR 11 12 recordings, and will be available on partners' smart TVs, TV-connected devices, and other IP-enabled video devices."¹³ Comcast will "provide consumers with a capability 13 to search through Comcast's video assets from a device's user interface with playback 14 of a selected asset via the Xfinity TV Partner app."¹⁴ "The Xfinity TV Partner App 15 16 can be easily implemented by any company whose consumer electronics device supports HTML5 and other compatibility requirements."¹⁵ 17

18 69. Upon information and belief, Comcast will continue to market its X1 IPG
19 Product to customers as well as to other Pay-TV providers (including Pay-TV
20 providers that do not have a license to Rovi's patents)—in direct competition with
21 Rovi's own patent-protected IPG products.

Mark Hess, Comcast Seeks TV and Other Consumer Electronics Partners to

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Id.
 Id.; see also The Xfinity TV Partner Program: Bringing the Xfinity Experience
 Id.; see also The Xfinity TV Partner Program: Bringing the Xfinity Experience
 Id. See also The Xfinity TV Partner Program: Bringing the Xfinity Experience

Bring Xfinity TV Cable Service to More Retail Devices, COMCAST (Apr. 20, 2016),

available at https://corporate.comcast.com/comcast-voices/comcast-seeks-partners-to-

https://developer.xfinity.com/cableapp (last visited Dec. 28, 2017).

bring-xfinity-ty-cable-service-to-more-retail-devices.

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IV. DEFENDANTS' INFRINGING PRODUCTS AND SERVICES

70. Upon information and belief, Comcast is in the business of providing digital video, audio, and other content services to customers under the name "Xfinity." Comcast provides subscribers to its subscription digital services with at least one Accused Product that is necessary for the receipt of such services.

6 Upon information and belief, Xfinity products and services are provided 71. 7 to consumers through the coordinated and combined participation of Defendants 8 and/or under Defendants' instruction, direction, and/or control. Directly and/or 9 indirectly, Comcast Corporation owns regional subsidiaries that provide 10 telecommunications and video services to customers in a number of states. Xfinity 11 services have been made available to consumers through at least the following 12 regional subsidiaries owned, directly or indirectly, by Comcast Corporation: Comcast 13 of Arkansas/Florida/Louisiana/Minnesota/Mississippi/Tennessee, Inc.; Comcast of 14 Boston, Inc.; Comcast of California II, LLC; Comcast of California III, Inc.; Comcast 15 of California IX, Inc.; Comcast of California/Colorado, LLC; Comcast of 16 California/Colorado/Florida/Oregon, Inc.; Comcast of 17 California/Colorado/Illinois/Indiana/Michigan, LP; Comcast of 18 California/Maryland/Pennsylvania/Virginia/West Virginia, LLC; Comcast of 19 California/Massachusetts/Michigan/Utah, LLC; Comcast of Colorado IX, LLC; 20 Comcast of Colorado/Florida/Michigan/New Mexico/Pennsylvania/Washington, LLC; 21 Comcast of Colorado/Pennsylvania/West Virginia, LLC; Comcast of Connecticut, 22 Inc.; Comcast of Connecticut/Georgia/Massachusetts/New Hampshire/New 23 York/North Carolina/Virginia/Vermont, LLC; Comcast of 24 Florida/Georgia/Illinois/Michigan, LLC; Comcast of Florida/Georgia/Pennsylvania, 25 L.P.; Comcast of Garden State, L.P.; Comcast of Houston, LLC; Comcast of Illinois 26 VI, Inc.; Comcast of Illinois/Indiana/Ohio, LLC; Comcast of Lompoc, LLC; Comcast 27 of Maine/New Hampshire, Inc.; Comcast of Maryland, LLC; Comcast Cable of 28 23

Maryland, LLC; Comcast of Massachusetts I, Inc.; Comcast of Massachusetts II, Inc.;
 Comcast of Massachusetts III, Inc.; Comcast of Massachusetts/New Hampshire, LLC;
 Comcast of New Jersey II, LLC; Comcast of Oregon II, Inc.; Comcast of Philadelphia
 II, LLC; Comcast of Potomac, LLC; Comcast of Santa Maria, LLC; Comcast of South
 Jersey, LLC; Comcast of Southeast Pennsylvania, LLC; Comcast of the South;
 Comcast of Utah II, Inc.; and Mile Hi Cable Partners, LP (collectively, regional
 subsidiaries).

Upon information and belief, Comcast Corporation and its regional 72. 8 9 subsidiaries hold themselves out as a single entity in providing the infringing Xfinity 10 products and services. Comcast's various Xfinity services are centrally advertised, 11 documented, and explained on the website, www.xfinity.com. Upon information and 12 belief, the Comcast regional subsidiaries use identical contracts and other documents in the provision of the infringing Comcast Xfinity products and services that are 13 14 generated and approved by Comcast Corporation and/or collectively by the 15 aforementioned regional subsidiaries. For example, Comcast Xfinity TV services have the same "Residential Services Policies" for residential customers, regardless of their 16 location.¹⁶ 17

Upon information and belief, acting through one or more of its officers 18 73. 19 and/or its board of directors, Comcast Corporation has: (a) approved and authorized 20 the development by designated Comcast Corporation subsidiaries of the technology and infrastructure necessary to offer the Xfinity service to the consuming public; 21 (b) approved and authorized the capital expenditures by its subsidiaries necessary to 22 23 provide the Xfinity service to consumers; and/or (c) authorized and directed its 24 regional subsidiaries to provide the Xfinity service under the Comcast brand to 25 consumers in their operating areas. Comcast Corporation further directed and

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27 See Xfinity Terms of Service, XFINITY, http://my.xfinity.com/terms/ (last visited Dec. 28, 2017).
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COMPLAINT FOR PATENT INFRINGEMENT

controlled the activities of its regional subsidiaries. In doing so, Comcast Corporation
 (together with the remaining Defendants) actively induced the infringement of such
 subsidiaries.

4 74. Comcast markets the Xfinity service to subscribers of each of the
5 regional subsidiaries described above and actively solicits their business through
6 Comcast's website.

7 75. Upon information and belief, Comcast has been involved in the design,
8 testing, and implementation of the Xfinity service. Upon information and belief,
9 Comcast provides overall management and coordination of the elements of the
10 network used to deliver Comcast's Xfinity services, and of the regional subsidiaries
11 that own and operate those elements.

12 76. In addition, Comcast has caused and directed at least the regional
13 subsidiaries to engage in activities, including those activities described above, that
14 have resulted in the infringement of one or more claims of the Asserted Patents. In
15 performing the activities that, either individually or in combination, have infringed
16 one or more claims of the Asserted Patents, the regional subsidiaries have acted as
17 agents of at least Comcast Corporation, and their infringing activities have been
18 within the course and scope of that agency.

19 77. Upon information and belief, Comcast does not manufacture the set-top
20 boxes that it provides to Xfinity customers.

78. Comcast set-top boxes contain, or are designed to receive and execute,
software (including IPG software) enabling a Comcast subscriber to infringe the
Asserted Patents. Upon information and belief, the receivers are specifically
manufactured to be combined with such software for use in Comcast's service
infrastructure. Comcast leases and/or otherwise provides to its subscribers these
receivers along with user guides and manuals describing how to use the receivers and
their associated features. In addition, Comcast provides for download free of charge

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mobile applications intended to be used with its Xfinity services, including for
 controlling DVR and program guide functionality, as well as software updates for its
 receivers.

79. Rovi is informed and believes that Comcast has engaged in activities 4 5 which promote the use and distribution of the X1 IPG Product and the Xfinity services and thereby encourages the infringement of Rovi's patents so long as Comcast 6 remains unlicensed by Rovi. Those activities include, among others, its instruction of 7 X1 users on how to infringe Rovi's patents. For example, Comcast instructs its users 8 9 on its own webpage how to search X1 with the Remote Control Keypad including overloaded key searches and search X1 with voice searches.¹⁷ As another example, 10 11 these activities include Comcast's development, creation, and promotion of the Reference Design Kit (RDK) software by which developers are encouraged, in an 12 13 open source platform, to develop new applications that will run on set-top boxes and other consumer premise equipment (CPE) loaded with Comcast's X1 IPG product and 14 15 Xfinity services technology (which infringe Rovi's patents).

16 80. Rovi is informed and believes that, in or before 2012, Comcast was
17 considering ways: (a) to promote the adoption of its X1 IPG platform, which
18 extensively utilizes Rovi's patented technology, as an industry standard; (b) to have
19 new applications and enhancements to its platform developed; and (c) to avoid the
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Search X1 with the Remote Control Keypad, XFINITY,

https://www.xfinity.com/support/articles/x1-search-using-the-remote-keypad (last visited Dec. 28, 2017); *The X1 Voice Remote Overview*, XFINITY,

https://www.xfinity.com/support/articles/get-to-know-xr11-remote (last visited Dec.
24 [28, 2017); Meet Your Xfinity X1 Remote, XFINITY,

http://x1guide.xfinity.com/files/X1-XR11-Remote.pdf (last visited Dec. 28, 2017);
 Download and Set Up the Xfinity TV Remote App on a Mobile Device, XFINITY,

²⁶ https://www.xfinity.com/support/articles/downloading-cable-tv-app (last visited Dec. 28, 2017); Xfinity XR11 Quick Start Guide,

https://customer.xfinity.com/~/media/support_comcast_com/Residential/Remotes/Ma nuals/XR11_GetStartedGuide_Oct07.pdf (last visited Dec. 28, 2018).

research and development cost of developing such new applications and

enhancements. The solution to meet those three goals was for Comcast to develop the
RDK, which was a defined stack of software on one layer of an operating set-top box,
that would be open source and available to all developers and vendors to create further
enhancements and applications that could run on that software, and Comcast's
products.

81. Comcast is a founder and key developer of the RDK. "Comcast's RDK is
an integrated software package providing a common platform for managing cable
television equipment located at the consumers' homes, including set-top boxes, DVRs
and home gateways."¹⁸ The RDK enables "potential hardware partners to build their
own versions of [Comcast's] next generation setup."¹⁹

12 82. Through the RDK, Comcast "work[s] closely with STB manufactures
13 and silicon suppliers during their early design phase and chipset prototype production
14 in order to minimize development cycles. In fact, STB suppliers can now take a new
15 chip from RDK-integrated silicon vendors and have a working STB design in days."²⁰

16 83. Upon information and belief, Comcast also works and has worked
17 directly with System on Chip (SoC) manufacturers "to get the RDK up and running on
18 those chip platforms before they even started building the [set-top] box around th[eir]
19 chip."²¹

Richard Lawler, Humax's take on an IP-connected TV box for Comcast passes
 through the FCC, ENGADGET (Nov. 28, 2012),
 http://www.engadget.com/2012/11/28/comcast-humax-xi3-h-ip-cable-box/.

Mike Robuck, *Built for speed: Comcast RDK*, CED MAGAZINE (July 5, 2012, 27

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In re Comcast Corp., Time Warner Cable Inc., Charter Commc'ns, Inc., &
 SpinCo to Assign & Transfer Control of FCC Licenses & Other Authorization, MB
 Dkt. No. 14-57, Comments of Broadcom Corp. at 3 (Aug. 18, 2014), available at
 http://apps.fcc.gov/ecfs/document/view?id=7521773052.

Steve Heeb, Looking Back At RDK In 2015: Driving Speed And Innovation,
 VIDEONET (Dec. 11, 2015), http://www.v-net.tv/looking-back-at-rdk-in-2015-driving speed-and-innovation.

84. Upon information and belief, through the promotion of the RDK,
 Comcast has made significant "effort[s] to get vendors such as original equipment
 manufacturers (OEMs), semiconductor manufacturers, software vendors, software
 integrators and multichannel video programming distributors to create an ecosystem
 for new gear for . . . Comcast's X1 service."²²

85. Upon information and belief, "[t]he RDK is supported by more than 200
licensees including CE [consumer electronics] and SoC [System on Chip]
manufactures "²³

9 86. Upon information and belief, through at least the promulgation of the
10 RDK, Comcast is substantially involved in the design and manufacture of the
11 receivers, including set-top boxes, onto which the infringing Comcast IPGs are
12 loaded.

13 87. Upon information and belief, Comcast obtains significant quantities of
14 specially designed, unlicensed receivers, including set-top boxes, from third parties.

15 88. Upon information and belief, over half of Comcast's 22 million
16 subscribers are on the X1 platform.²⁴

18
12:41 PM), http://www.cedmagazine.com/article/2012/07/built-speed-comcast-rdk
(quoting Comcast's Steve Reynolds, senior vice president of CPE and home networking).

News and Events, Pace licenses RDK set top design kit from Comcast, RDK
 CENTRAL, http://rdkcentral.com/pace-licenses-rdk-set-top-design-kit-from-comcast/
 (last visited Dec. 28, 2017); see also Deborah D. McAdams, Motorola Mobility

Licenses Comcast RDK, TVTECHNOLOGY (Aug. 22, 2012),
 http://www.tvtechnology.com/news/0002/motorola-mobility-licenses-comcast-rdk/215089 (noting Comcast's attempts to license RDK).

About RDK, RDK CENTRAL, http://rdkcentral.com/about-rdk/ (last visited Dec.
 28, 2017).

26 David Hayes, Comcast X1 Subscribers Can Get Epix In Early 2018 Under New Distribution Deal, DEADLINE (Nov. 28, 2017, 9:33 AM),

 http://deadline.com/2017/11/comcast-x1-subscribers-get-epix-in-early-2018-undernew-distribution-deal-1202215657/.

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89. Upon information and belief, "[a]ll of Comcast's X1-class [set-top] boxes
 are based on the Reference Design Kit (RDK)."²⁵

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90. Upon information and belief, Comcast has had and continues to have significant involvement in the importation and distribution of these Comcast receivers, including by causing the manufacture and importation of these Comcast receivers to occur through the promulgation of the Comcast RDK; obtaining such receivers from third party manufacturers, which receivers would not have been made otherwise; and the subsequent delivery of such receivers to its subscriber base.

9 91. Upon information and belief, Comcast has held itself out as the
"supplier" of its receivers, including its set-top boxes that it distributes to its
subscribers. For example, in connection with the FCC filing made by Comcast
relating to the potential merger of Comcast and Time Warner, Comcast repeatedly
referred to "Comcast-supplied set-top boxes," and characterized set-top boxes used in
connection with the X1 platform as "Comcast's."²⁶

92. Upon information and belief, these Comcast receivers contain, or are
designed to receive and execute, software (including IPG software) enabling a
Comcast subscriber to view, record, and control television broadcasts; connect to and
interact with Comcast's service infrastructure and download data, software, and
content; and receive an array of digital video, audio, and other content, and therefore
infringe the Asserted Patents. Comcast designs the infringing IPG software that is
loaded onto such receivers (and for which purpose such receivers were designed).

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²⁵ Jeff Baumgartner, *Comcast Starts To Deploy IP-Only Boxes For X1*, MULTICHANNEL NEWS (Oct. 28, 2014, 4:00 PM),

- 28 http://apps.fcc.gov/ecfs/document/view?id=7522909787.
 28 http://apps.fcc.gov/ecfs/document/view?id=7522909787.
 - 29

²⁵ http://www.multichannel.com/news/technology/comcast-starts-deploy-all-ip-boxesx1/385122.

<sup>See generally In re Comcast Corp., MB Dkt. No. 14-57, Opp'n to Pets. to Deny
& Resp. to Comments (Sept. 23, 2014), available at</sup>

Case 2:18-cv-00253 Document 1 Filed 01/10/18 Page 31 of 76 Page ID #:31

Upon information and belief, Xfinity products and services are provided 1 93. 2 to consumers through the coordinated and combined participation of Defendants and/or under Defendants' instruction, direction, and/or control. 3

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COMCAST REFUSES TO RENEW ITS LICENSE— NOTWITHSTANDING LITIGATION AND FINDINGS OF **INFRINGEMENT OF CERTAIN ROVI PATENTS**

94. On April 1, 2016, Rovi sued Comcast in two district court actions for infringing various patents not asserted here. Those actions are stayed in the Southern District of New York (Case Nos. 1:16-cv-09278 and 1:16-cv-09826).

On April 6, 2016, Rovi brought an enforcement action against Comcast 95. in the International Trade Commission for importing products that infringe various patents-again, patents not asserted here. In November 2017, the Commission found that Comcast's X1 STBs infringed two of those patents, excluded future imports of these boxes, and ordered Comcast not to import or distribute infringing products. See generally In re Certain Digital Video Receivers & Hardware & Software Components Thereof, Inv. No. 337-TA-1001, Comm'n Op. (Dec. 6, 2016) (Final Public Version).

17 96. And yet even after the ITC orders, Comcast has refused to renew its 18 License to Rovi's portfolio. Comcast continues to make, use, testing, lease, offer to 19 lease, and distribute products that infringe Rovi's patents, including the Asserted 20 Patents in this Complaint. Comcast apparently believes that it can use Rovi's technology for free, while all of Comcast's competitors have paid a reasonable price 22 for a license to Rovi's portfolio.

	Case 2:18-cv-00253 Document 1 Filed 01/10/18 Page 32 of 76 Page ID #:32	
1	FIRST CLAIM FOR RELIEF	
2	INFRINGEMENT OF U.S. PATENT NO. 7,827,585	
3	97. Plaintiff realleges and incorporates by reference the allegations of	
4	paragraphs 1-96 of this Complaint.	
5	98. The '585 Patent is valid and enforceable under United States Patent	
6	Laws.	
7	99. Rovi Guides, Inc. owns, by assignment, all right, title, and interest in and	
8	to the '585 Patent, including the right to collect for past damages.	
9	100. A certified copy of the '585 Patent is attached as Exhibit A.	
10	101. The '585 Patent was issued from U.S. Patent Application No. 11/197,867	
11	filed on August 4, 2005, and is a continuation of application No. 10/383,281, filed on	
12	March 5, 2003, which is a continuation of application No. 09/157,256 filed on	
13	September 17, 1998.	
14	The '585 Patent	
15	102. The '585 Patent describes, among other things, a local IPG implemented	
16	on interactive television program guide equipment (e.g., a receiver) that allows, for	
17	example, a user to select at least one storage option for controlling how a program to	

1 m to be recorded is to be stored. The patent discloses features such as the local IPG being 18 19 configured to display program listings, provide a user with an opportunity to indicate 20 a program to be recorded on a random access digital storage device, provide the user 21 with an opportunity to select at least one storage option, and for storing the program to 22 be recorded on the digital storage device in accordance with the storage option 23 selected by the user. The storage options relate to at least one storage setting which 24 controls how the program is to be digitally stored on the random access storage 25 device.

103. Figure 2 of the '585 Patent is a schematic block diagram of an illustrative
arrangement of television equipment on which the patented invention may function.

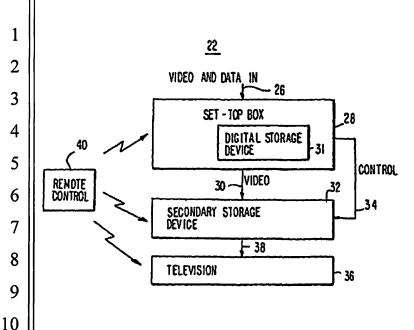


FIG. 2

As the '585 Patent describes:

An illustrative arrangement for user television equipment 22 is shown in FIG. 2. Television equipment 22 of FIG. 2 receives video and data from television distribution facility 16 (FIG. 1) at input 26. During normal television viewing, the user tunes set top box 28 to a desired television channel. The signal for that television channel is then provided at video output 30. The outputted signal is typically either a radiofrequency (RF) signal on a predefined channel (e.g., channel 3 or 4), or a demodulated video signal, but may also be a digital signal provided to television 36 on an appropriate digital bus (e.g., a bus using the IEEE 1394 standard, (not shown)). The video signal at output 30 is received by optional secondary storage device 32. Secondary storage device 32 can be any suitable type of analog or digital program storage device (e.g., a videocassette recorder, a digital video disc (DVD) player with the ability to record DVD discs, etc.). Program recording and other features may be controlled by set top box 28 using control path 34. If secondary storage

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COMPLAINT FOR PATENT INFRINGEMENT

device 32 is a videocassette recorder, for example, a typical control path 34 involves the use of an infrared transmitter coupled to the infrared receiver in the videocassette recorder that normally accepts commands from a remote control such as remote control 40. Remote control 40 may be used to control set top box 28, secondary storage device 32, and television 36.

The user may also record programs and program data in digital form on digital storage device **31**. Digital storage device **31** may be a writable optical storage device (such as a DVD player capable of handling recordable DVD discs), a magnetic storage device (such as a disk drive or digital tape), or any other digital storage device. Digital storage device **31** preferably supports a directory structure containing information associated with stored entries. This directory information can be stored in one location, for example at the beginning or the end of the storage device. The directory information can also be distributed (e.g., by storing a portion of such information at the same location as each entry). For removable storage media like DVDs, each storage unit may have its own directory information, and the program guide may keep a global-media library (discussed below).

Digital storage device **31** can be contained in set top box **28** or it can be an external device connected to set top box **28** via an output port and appropriate interface. If necessary, processing circuitry in set top box **28** formats the received video, audio and data signals into a digital file format. Preferably, the file format is an open file format such as the Motion Pictures Expert Group (MPEG) MPEG-2 standard. The resulting data is streamed to digital storage device **31** via an appropriate bus (e.g., a bus using the IEEE 1394 standard), and is stored on digital storage

MCKOOL SMITH, P.C.

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device 31. Television 36 receives video signals from secondary storage device 32 via communications path 38. The video signals on communications path 38 may either be generated by secondary storage device 32 when playing back a prerecorded storage medium (e.g., a videocassette or a recordable digital video disc), by digital storage device 31 when playing back a pre-recorded digital medium, may be passed through from set top box 28, may be provided directly to television 36 from set top box 28 if secondary storage device 32 is not included in user television equipment 22, or may be received directly by television 36. During normal television viewing, the video signals provided to television 36 correspond to the desired channel to which the user has tuned with set top box 28. The video signals provided to television 36 may also be by set top box 28 when set top box 28 is used to play back information stored on digital storage device 31. When the user wishes to access the features of the program guide, the user may use a "menu" key on remote control 40 or an appropriate key corresponding to the desired feature. For example, if the user wishes to view programming information, a "guide" key on remote control 40 can be used. When set top box 28 receives commands from remote control 40 that inform set top box 28 that the menu or other feature button has been pressed, processing circuitry within set top box 28 supplies information that is displayed on television 36 as described further below.

23 **3** '585 Patent 3:28-4:36.

24 104. Figure 14 of the '585 Patent is an illustrative display screen of an IPG
25 that highlights certain aspects of the patented invention.

34 COMPLAINT FOR PATENT INFRINGEMENT

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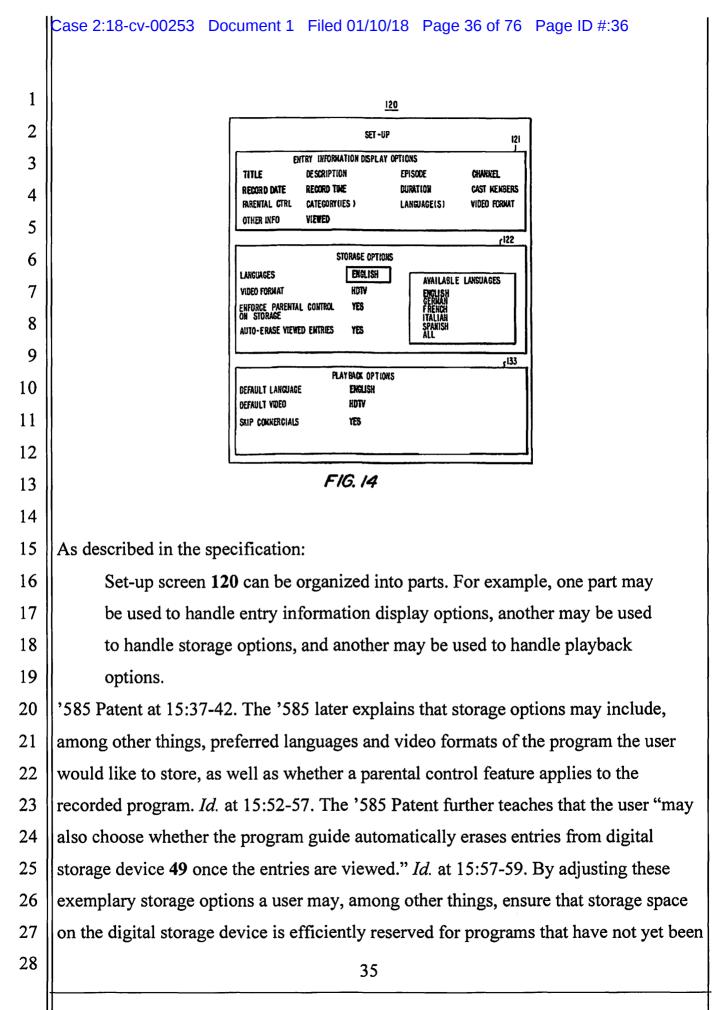
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1 viewed.

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Historical Context of the '585 Patent

3 105. Over the years, cable, satellite, and broadcast television providers have offered an increasingly large number of television channels and television program 4 listings. Traditionally, users would consult printed television program schedules to 5 6 determine the programs being broadcast at particular times. '585 Patent at 1:20-23. In 7 the years leading up to the '585 Patent, interactive electronic television program 8 guides were developed, which allowed users to more easily navigate television 9 program information. '585 Patent at 1:23-26. These IPGs frequently organized the 10 various television program listings in a grid, wherein each row in the grid contains 11 television program listings for a different channel, and each column in the grid 12 corresponds to a determined broadcast time. '585 Patent at 1:31-34. Users could scroll through these listings to find their desired television programs without wasting time 13 14 "channel surfing." '585 Patent at 1:35-38.

15 106. Later, the IPGs were further developed to allow for programs selected within the program guide to be recorded and stored on an independent storage device, 16 such as a videocassette recorder. '585 Patent at 1:39-42. While the use of independent 17 18 analog storage devices provided the benefits of basic recording, the functionality was 19 very limited. Users could not access the more advanced features that might be implemented if a digital storage device were associated directly with an IPG. '585 20 21 Patent at 1:45-48. Therefore, the inventors of the '585 Patent disclosed novel systems and methods that provided an IPG guide with digital storage, thereby enhancing the 22 23 recording options and features available to a user. '585 Patent at 1:49-50.

'585 Patent Allegations

25 107. Comcast has infringed and is infringing, individually and/or jointly,
26 either literally or under the doctrine of equivalents, one or more claims of the '585
27 Patent in violation of 35 U.S.C. §§ 271, *et seq.*, directly and/or indirectly, by making,

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using, offering for lease, leasing in the United States, and/or importing into the United 1 States without authority or license, set-top boxes, including without limitation, one or 2 3 more of the Accused Products and associated software (including at least the Xfinity branded mobile IPG) that are used to infringe at the '585 Patent. Upon information 4 5 and belief after reasonable investigation, each of the '585 Accused Products are designed to be and are used with Comcast supplied remote controls, the Comcast 6 7 website and/or Comcast's Xfinity TV Remote App to enable a user to specify recording options. For example, Comcast users are able to "[s]chedule or delete 8 recordings" using the Xfinity TV App.²⁷ Comcast uses are also able to "change the 9 record options" using the Comcast Xfinity Stream Portal website.²⁸ And, Comcast 10 users are able to use their Comcast supplied remote controls to set recording options, 11 including "the ability to extend the start or stop time of a recorded program."²⁹ On 12 13 information and belief and after reasonable investigation, Comcast provides the Accused Products, which allow a user to select storage options for storing programs 14 using an IPG implemented on user television equipment. Further, on information and 15 16 belief and after reasonable investigation, Comcast performs the methods claimed in the '585 Patent by allowing a user to select storage options for storing programs using 17 18 an IPG implemented on user television equipment on the Comcast X1 system.

108. Defendants have been, and currently are, active inducers of infringement of one or more claims of the '585 Patent under 35 U.S.C. § 271(b). Upon information

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COMPLAINT FOR PATENT INFRINGEMENT

 ²⁷ Here's How to Turn Any Device Into a Personal TV at Home, COMCAST,
 https://corporate.comcast.com/news-information/news-feed/heres-how-to-turn-any-device-into-a-personal-tv-inside-the-home (last visited Dec. 28, 2017).
 ²⁸ G + Store device into a VED/VED G = Device News-information

 ²⁸ Get Started with the XFINITY Stream Portal, XFINITY,
 ²⁸ https://www.xfinity.com/support/articles/getting-started-xfinity-tv-website (last visited Dec. 28, 2017).

 ²⁹ Change the Start or Stop Time of a Recording on Your X1 DVR, XFINITY,
 https://www.xfinity.com/support/articles/x1-modify-the-recording-time-of-a-program
 (last visited Dec. 28, 2017).

and belief, one or more of the '585 Accused Products of the Defendants directly
 and/or indirectly infringe (by induced infringement) one or more claims of the '585
 Patent, literally and/or under the doctrine of equivalents.

109. For example, a preliminary claim chart applying to exemplary
independent claims 1, 8, 15, and 22 of the '585 Patent to the '585 Accused Products
(as defined herein, which include related hardware and software components) with a
Comcast PX001ANM set-top box (Pace XG1v1) operating Comcast Xfinity X1
software can be found at Exhibit B. This chart is an exemplary chart representative of
the infringing operation of all '585 Accused Products, which operate the Comcast
Xfinity X1 software in the same manner.

11 110. Defendants have had actual knowledge of the '585 Patent since at least
12 September 23, 2014, when Rovi provided presentations and claim charts to Comcast
13 specifically identifying patents in Rovi's portfolio, including the '585 Patent, and
14 showing an example of Comcast's infringement of the '585 Patent. Comcast was
15 reminded of the patent on April 7, 2015 when, at Comcast's request, Rovi provided a
16 spreadsheet illustrating the breadth of Rovi's guidance portfolio, including the '585
17 Patent.

18 111. With full knowledge of the '585 Patent, then, Comcast intentionally
19 encourages and aids at least service providers and end-user subscribers to directly
20 infringe the '585 Patent.

112. Comcast provides the '585 Accused Products and instructions to Xfinity
subscribers so that such subscribers will use the '585 Accused Products in a directly
infringing manner. Comcast markets the Xfinity System to subscribers by touting the
ability to "Change the Start or Stop Time of a Recording on Your X1 DVR" by
"Highlight[ing] the Start time and use the left or right arrow buttons to modify - select
either 1 or 2 minutes early" and "Highlight[ing] the Stop time and use the left or right
arrow buttons to modify - select between 1, 5 or 30 minutes late (options for live

programming - 30, 60 or 90 minutes late)."³⁰ Comcast provides instructions to its 1 2 subscribers on how to use the functionality of the '585 Patent on this website as well. Comcast further instructs its users how to use recording options that apply to multiple 3 television programs, rather than just the individual program selected to be recorded. 4 5 For instance, a user may determine whether to store only new episodes of a selected series, whether to store only HD versions of the selected programs and series, whether 6 to store one or more episodes of the series, whether to store the programs in the series 7 from their start or from a time prior to their start time, or whether to store the 8 9 programs in the series until their scheduled end time or until a time after their 10 scheduled end time.

11 113. Comcast subscribers directly infringe by using the '585 Accused
Products in their intended manner to infringe. Comcast induces such infringement by
providing the '585 Accused Products and instructions to enable and facilitate
infringement, with full knowledge of the '585 Patent. Upon information and belief,
Comcast specifically intends that its actions will result in infringement of the '585
Patent or has taken deliberate actions to avoid learning of infringement.

17 114. This Complaint will serve as notice to Defendants of the '585 Patent and
18 its infringement, should Defendants contend that they did not previously have
19 knowledge thereof.

20 115. Additional allegations regarding Defendants' knowledge of the '585
21 Patent and willful infringement will likely have evidentiary support after a reasonable
22 opportunity for discovery.

23 116. Defendants' infringement of the '585 Patent is willful and deliberate,
24 entitling Rovi to enhanced damages and attorneys' fees.

Change the Start or Stop Time of a Recording on Your X1 DVR, XFINITY,
 https://www.xfinity.com/support/articles/x1-modify-the-recording-time-of-a-program
 (last visited Dec. 28, 2017).

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COMPLAINT FOR PATENT INFRINGEMENT

1 117. Defendants' infringement of the '585 Patent is exceptional and entitles
 2 Rovi to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C.
 3 § 285.

118. Rovi has been damaged by Defendants' infringement of the '585 Patent
and will continue to be damaged unless Defendants are enjoined by this Court. Rovi
has suffered and continues to suffer irreparable injury for which there is no adequate
remedy at law. The balance of hardships favors Rovi, and public interest is not
disserved by an injunction.

9 119. Rovi is entitled to recover from Defendants all damages that Rovi has
10 sustained as a result of Defendants' infringement of the '585 Patent, including without
11 limitation lost profits and not less than a reasonable royalty.

SECOND CLAIM FOR RELIEF

INFRINGEMENT OF U.S. PATENT NO. 9,294,799

120. Plaintiff realleges and incorporates by reference the allegations of paragraphs 1-119 of this Complaint.

17 121. The '799 Patent is valid and enforceable under United States Patent
18 Laws.

19 122. Rovi Guides, Inc. owns, by assignment, all right, title, and interest in and
20 to the '799 Patent.

123. A copy of the '799 Patent is attached as Exhibit C.

124. The '799 Patent was issued from U.S. Patent Application No. 14/926,640
filed on October 29, 2015, and is a continuation of application No. 14/559,781, filed
on December 3, 2014, which is a continuation of application No. 14/048,818, filed on
October 8, 2013, now U.S. Patent No. 8,973,069, which is a continuation of
application No. 13/023,842, filed on February 9, 2011, now U.S. Patent No.
8,584,184, which is a continuation of application No. 12/200,593 filed on August 28,

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COMPLAINT FOR PATENT INFRINGEMENT

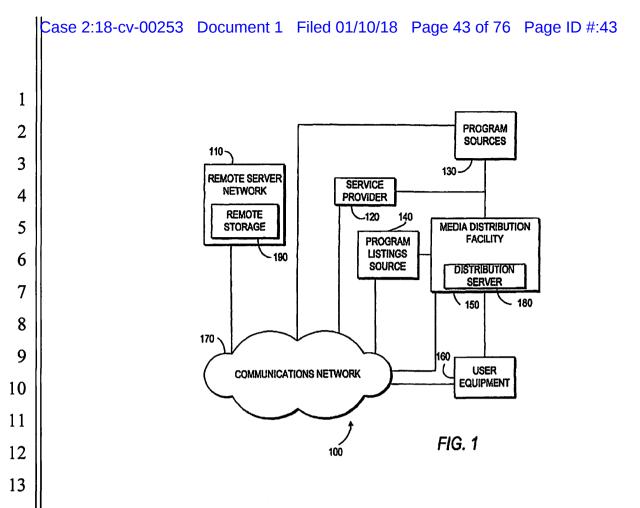
2008, now U.S. Patent No. 7,917,933, which is a continuation of application No.

09/974,646, filed on October 9, 2001, now U.S. Patent No. 7,650,621, and claims
priority to U.S. Provisional Patent Application No. 60/270,351, filed on February 21,
2001, U.S. Provisional Patent Application No. 60/252,171, filed on November 20,
2000, and U.S. Provisional Patent Application No. 60/239,407, filed on October 11,
2000.

The '799 Patent

8 125. The '799 Patent is directed to a system and method that allows users to
9 view and manipulate media content stored on a server on a first user equipment and
10 then to view and manipulate media content on a second user equipment based on the
11 manipulation that has occurred on the first user equipment. This functionality allows a
12 user to begin watching on-demand media content on one device, pause the program,
13 and resume watching from the same point on a second device.

14 126. Figure 1 of the '799 Patent is a schematic diagram that illustrates the
15 network topology of an on-demand media delivery system that embodies principles of
16 the patented invention.

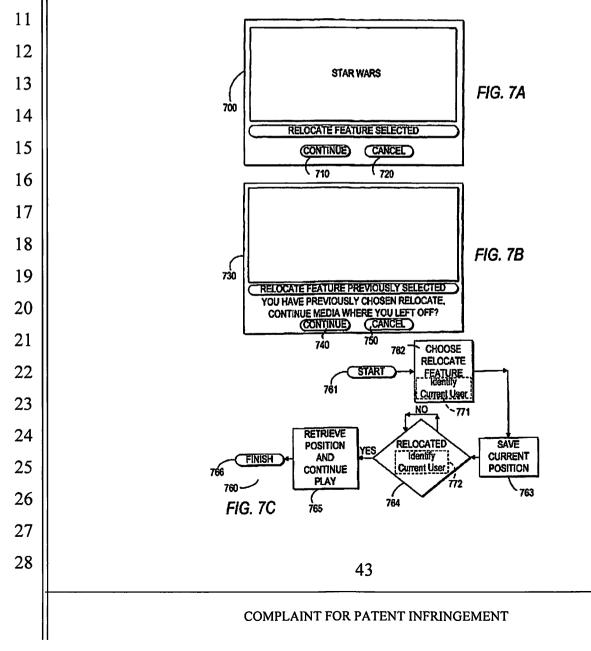


14 As described in the '799 Patent, FIG. 1 shows one embodiment of a system architecture for an on-demand media delivery system, which may include "any 15 16 number of remote server networks 110, service providers 120, program sources 130, 17 program listings sources 140, media distribution facilities 150, user equipment 160, communications networks 170, distribution servers 180, and remote storage devices 18 190." '799 Patent at 4:2-7. The "specialized" distribution servers are configured to 19 20 support on-demand media services, and, along with other on-demand media 21 equipment, "may be located at network nodes associated with the media distribution facility." '799 Patent at 4:22-28. The media distribution facility, which houses this 22 specialized on-demand equipment, "may be a cable system headend, a satellite 23 television distribution facility, a television broadcast facility, or any other suitable 24 25 facility for distributing on-demand media content" '799 Patent at 4:29-32. The 26 IPGs "may be provided by a server located in remote server network 110, in 27 distribution server 180, or by a server located in any element included in the network

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topologyRemote storage 190 may be used to store software, media content, and
data." '799 Patent at 5:4-9. This remote storage equipment "may provide a user
interfacing with user equipment 160 with the capability to store, manipulate, and
retrieve media content, user-specific data, and any other type of data." '799 Patent
5:10-13. The features that flow from this architecture "may be implemented locally on
the user equipment," or "may also be implemented using a client-server architecture in
which the user equipment serves as a client processor." '799 Patent at 5:47-53.

8 127. Figures 7A, 7B, and 7C of the '799 Patent are diagrams and flow charts
9 that illustrate the relocation process in accordance with the principles of the patented
10 invention.



As the '799 Patent explains:

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When the relocate feature is first selected by a user, remote server network **110** of FIG. **1** may, for example, pause the on-demand media content being viewed by the user and store a content location reference to an appropriate user-specific account. After the user switches to a different location and requests that the paused content be appropriately delivered, remote server network **110** may retrieve the appropriate content location reference and continue delivering the media content from the point at which the user paused the content. Before the media content may be delivered, the remote server network may require that the user be identified so that the appropriate user-specific data and/or a user-specific account information, may be located and accessed.

13 799 Patent at 11:21-33.

Figure 7C more fully describes a preferred embodiment of the relocation 14 process. This process begins with a start step, which "may include almost any 15 interaction with the media-delivery system that results in the relocation feature being 16 17 presented to the user." '799 Patent at 11:45-48. In the next step, a user may be given 18 an opportunity to choose or confirm the relocate feature. '799 Patent at 11:48-51. This step may also "allow the system to identify the current user before the relocate feature 19 is selected by the user." '799 Patent at 11:59-61. Next, the on-demand media system 20 saves the user's current position, i.e., "saving a pointer that identifies where the media 21 22 content was 'frozen' or paused by the relocate feature." '799 Patent at 11:62-67. 23 When that user later logs into a second user equipment connected to the system, the user has the ability to resume the media using the relocate function. '799 Patent at 24 25 12:6-9. By retrieving the stored pointer associated with the relevant on-demand media 26 content, the system allows the user to resume the content at the same point at which it 27 was "frozen" or paused by the user. '799 Patent at 12:20-29.

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Historical Context of the '799 Patent

2 128. As detailed above, the '799 Patent relates to dynamic on-demand media 3 delivery systems that allow a user to view on-demand media content across multiple 4 devices. Prior to the filing of the '799 Patent, set-top boxes were used to receive on-5 demand video from cable system headends. '799 Patent at 1:32-34. These known systems were "deficient in allowing users to relocate their video-on-demand service to 6 7 different locations." '799 Patent at 1:36-38. Known systems comprising client-server television program guides were similarly "deficient in providing sufficient mobility 8 features." '799 Patent 1:55-2:3. 9

10 129. These deficiencies resulted in users being unable to seamlessly view on11 demand media content across multiple devices. For example, prior to the inventions of
12 the '799 Patent, users were unable to effectively freeze on-demand media delivery on
13 one user equipment and resume delivery and viewing from another user equipment.

14 130. The inventors of the '799 Patent sought to address these deficiencies in
15 the known systems through the methods and systems disclosed in the '799 Patent

'799 Patent Allegations

17 131. Defendants have infringed and are infringing, individually and/or jointly, 18 either literally or under the doctrine of equivalents, one or more claims of the '799 19 Patent in violation of 35 U.S.C. §§ 271, et seq., directly and/or indirectly, by making, 20 using, offering for sale/lease, leasing, distributing in the United States, and/or 21 importing into the United States without authority or license, set-top boxes, including 22 without limitation, one or more of the Accused Products ('799 Accused Products) and 23 associated software (including at least the Xfinity branded mobile IPG) that are used 24 to infringe one or more claims of the '799 Patent.

25 132. Defendants have been, and currently are, active inducers of infringement
26 of one or more claims of the '799 Patent under 35 U.S.C. § 271(b). Upon information
27 and belief, one or more of the Accused Products of the Defendants directly and/or

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indirectly infringe (by induced infringement) one or more claims of the '799 Patent,
 literally and/or under the doctrine of equivalents.

3 133. For example, a preliminary claim chart applying to exemplary 4 independent claims 1, 10, and 28 of the '799 Patent to the '799 Accused Products (as 5 defined herein, which include related hardware and software components) with a Comcast PX001ANM X1 set-top box (Pace XG1v1) and a Comcast PR150BNM 6 7 (Pace RNG150N) operating Comcast Xfinity X1 software can be found at Exhibit D. This chart is an exemplary chart representative of the infringing operation of all '799 8 9 Accused Products, which operate the Comcast Xfinity X1 software in the same 10 manner.

11 134. Defendants induce infringement of the asserted claims of the '799 Patent
12 by users of the '799 Accused Products in the United States.

13 135. With full knowledge of the '799 Patent, then, Comcast intentionally
14 encourages and aids at least service providers and end-user subscribers to directly
15 infringe the '799 Patent.

16 136. Comcast provides the Accused Products and instructions to Xfinity 17 subscribers so that these subscribers will use the Accused Products in a directly 18 infringing manner. Comcast markets the Xfinity System to subscribers by touting the 19 ability to "[b]egin a recorded show on your TV and resume watching it on another TV."³¹ Comcast provides instructions to its subscribers on how to use the functionality 20 21 of the '799 Patent on this website as well. Comcast users are able to pause and resume 22 playback of on-demand content across equipment and user devices, including set-top 23 boxes and smartphones and tablets with the Comcast Stream application installed.

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26 31 X1 AnyRoom DVR - What it is and How it Works, XFINITY, https://www.xfinity.com/support/articles/x1-anyroom-dvr-overview (last visited Dec. 28, 2017)
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COMPLAINT FOR PATENT INFRINGEMENT

1 137. Comcast subscribers directly infringe by using the Accused Products in
 2 their intended manner to infringe. Comcast induces such infringement by providing
 3 the Accused Products and instructions to enable and facilitate infringement, with full
 4 knowledge of the '799 Patent. *Id*. Upon information and belief, Comcast specifically
 5 intends that its actions will result in infringement of the '799 Patent or has taken
 6 deliberate actions to avoid learning of infringement.

7 138. This Complaint will serve as notice to Defendants of the '799 Patent and
8 its infringement, should Defendants contend that they did not previously have
9 knowledge thereof.

10 139. Additional allegations regarding Defendants' knowledge of the '799
11 Patent and willful infringement will likely have evidentiary support after a reasonable
12 opportunity for discovery.

13 140. Defendants' infringement of the '799 Patent is willful and deliberate,
14 entitling Rovi to enhanced damages and attorneys' fees.

15 141. Defendants' infringement of the '799 Patent is exceptional and entitles
16 Rovi to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C.
17 § 285.

18 142. Rovi has been damaged by Defendants' infringement of the '799 Patent
and will continue to be damaged unless Defendants are enjoined by this Court. Rovi
has suffered and continues to suffer irreparable injury for which there is no adequate
remedy at law. The balance of hardships favors Rovi, and public interest is not
disserved by an injunction.

143. Rovi is entitled to recover from Defendants all damages that Rovi has
sustained as a result of Defendants' infringement of the '799 Patent, including without
limitation lost royalty.

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COMPLAINT FOR PATENT INFRINGEMENT

THIRD CLAIM FOR RELIEF

INFRINGEMENT OF U.S. PATENT NO. 9,369,741

144. Plaintiff realleges and incorporates by reference the allegations of paragraphs 1-143 of this Complaint.

5 145. The '741 Patent is valid and enforceable under United States Patent
6 Laws.

7 146. Rovi Guides, Inc. owns, by assignment, all right, title, and interest in and
8 to the '741 Patent.

147. A copy of the '741Patent is attached as Exhibit E.

10 148. The '741 Patent was issued from U.S. Patent Application No. 11 14/741,034, filed on June 16, 2015, and is a continuation of application No. 12 14/313,348, filed on June 24, 2014, now U.S. Patent No. 9,071,872, which is a 13 continuation of application No. 13/866,247, filed on April 19, 2013, now U.S. Patent 14 No. 8,806,546, which is a continuation of application No. 13/112,078, filed on 15 May 20, 2011, now U.S. Patent No. 8,799,971 which is a continuation of application 16 No. 12/827,046 filed on June 30, 2010, now U.S. Patent No. 7,971,222, which is a 17 continuation of application No. 12/350,393 filed on January 8, 2009, now U.S. Patent 18 No. 7,779,445, which is a continuation of application No. 10/357,001, filed on 19 January 30, 2003, now U.S. Patent No. 7,493,646.

The '741 Patent

149. The '741 Patent claims systems and methods of transmitting video to a
user device, detecting whether an archived copy of that same video resides on the
server, displaying to the user the option to watch the archived copy, and retrieving the
full archived copy upon a user's input. This feature allows a user who has tuned in late
to a linear broadcast program to restart the program from the beginning by
determining the existence of and accessing a non-linear (e.g., on-demand) copy of the
program.

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150. As the '741 Patent describes, users of IPGs with recording capabilities 1 2 may schedule a recording of upcoming television program on either network 3 equipment (e.g., a server at a cable system headend or other network location) or on 4 local equipment (e.g., local videocassette or DVR storage) '741 Patent at 1:63-2:4. In 5 addition to a user's personal recordings, in many instances cable providers centrally 6 store virtual copies of television programs that may be available for on-demand viewing. '741 Patent at 2:5-13. Through use of the IPG a user may navigate a list of 7 the archived programs that are available for on-demand viewing. 8

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Historical Context of the '741 Patent

10 151. The '741 Patent relates to IPGs that are configured to operate with 11 network-based or local DVR capabilities. In the years leading up to the invention of the '741 Patent, IPGs had been used to navigate both linear television programming 12 (e.g., scheduled network programming) and on-demand programming, including pay-13 per-view television. With the advent of DVR technology, as well as the increasingly 14 15 broad on-demand content offered by content providers, it became increasingly difficult for users efficiently manage archived video content. As the '741 Patent states, 16 17 "It would . . . be desirable to be able to collect and use information on the desirability of retaining access to certain television programming when managing the storage of 18 19 network-based or local personal video-recorder content in an interactive system." '741 20 Patent at 1:52-56.

'741 Patent Allegations

152. Defendants have infringed and are infringing, individually and/or jointly,
either literally or under the doctrine of equivalents, one or more claims of the '741
Patent in violation of 35 U.S.C. §§ 271, *et seq.*, directly and/or indirectly, by making,
using, offering for lease, leasing, distributing in the United States, and/or importing
into the United States without authority or license, set-top boxes, including without
limitation, one or more of the Accused Products and associated software (including at

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least the Xfinity branded mobile IPG) that are used to infringe at least one claim of the 1 2 '741 Patent. Upon information and belief and after reasonable investigation the Accused Products contain storage circuitry for storing archived copies of videos. For 3 instance, Comcast has a wide offering of on-demand content that is archived and 4 5 available for viewing by Comcast subscribers. Further, upon information and belief and after reasonable investigation, Comcast transmits linear video programming to its 6 7 subscribers, each program generally transmitted at a set start time and concluding at a 8 set end time. Comcast's X1 system is configured to access the database of archived 9 on-demand content and determine whether it corresponds with a live program and, if 10 so, indicate to the user the existence of the corresponding archived copy through an 11 on-screen notification. The Comcast user may then request to view the corresponding 12 archived copy.

13 153. Defendants have been, and currently are, active inducers of infringement
14 of one or more claims of the '741 Patent under 35 U.S.C. § 271(b). Upon information
15 and belief, one or more of the Accused Products of the Defendants directly and/or
16 indirectly infringe (by induced infringement) one or more claims of the '741 patent,
17 literally and/or under the doctrine of equivalents.

18 154. For example, a preliminary claim chart applying to exemplary
independent claims 1, 8, and 15 of the '741 Patent to the Accused Products (as defined
herein, which include related hardware and software components) with a Comcast
PX001ANM X1 set-top box (Pace XG1v1) operating Comcast Xfinity X1 software
can be found at Exhibit F. This chart is an exemplary chart representative of the
infringing operation of all Accused Products, which operate the Comcast Xfinity X1
software in the same manner.

25 155. With full knowledge of the '741 Patent, then, Comcast intentionally
26 encourages and aids at least service providers and end-user subscribers to directly
27 infringe the '741 Patent.

1 156. Comcast provides the Accused Products and instructions to Xfinity
 2 subscribers so that such subscribers will use the Accused Products in a directly
 3 infringing manner. Comcast markets the Xfinity System to subscribers by touting the
 ability to "view [a program] from the beginning after tuning to a channel."³² Comcast
 5 provides instructions to its subscribers on how to use the functionality of the '741
 6 Patent on this website as well.³³

157. Comcast subscribers directly infringe by using the Accused Products in
their intended manner to infringe. Comcast induces such infringement by providing
the Accused Products and instructions to enable and facilitate infringement, with full
knowledge of the '741 Patent.³⁴ Upon information and belief, Comcast specifically
intends that its actions will result in infringement of the '741 Patent or has taken
deliberate actions to avoid learning of infringement.

13 158. This Complaint will serve as notice to Defendants of the '741 Patent and
14 its infringement, should Defendants contend that they did not previously have
15 knowledge thereof.

16 159. Additional allegations regarding Defendants' knowledge of the '741
17 Patent and willful infringement will likely have evidentiary support after a reasonable
18 opportunity for discovery.

19 160. Defendants' infringement of the '741 Patent is willful and deliberate,
20 entitling Rovi to enhanced damages and attorneys' fees.

23 32 Peter Nush, New This Month On X1: A More Intuitive and Navigable User 24 Experience, COMCAST (May 15, 2015), http://corporate.comcast.com/comcastvoices/new-this-month-on-x1-a-more-intuitive-and-navigable-user-experience. 25 33 Restart Show Command, XFINITY FORUMS, 26 http://forums.xfinity.com/t5/X1/Restart-Show-Command/td-p/2986131 (last visited Dec. 28, 2017). 27 34 Id. 28 51

COMPLAINT FOR PATENT INFRINGEMENT

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1 161. Defendants' infringement of the '741 Patent is exceptional and entitles
 2 Rovi to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C.
 3 § 285.

162. Rovi has been damaged by Defendants' infringement of the '741 Patent
and will continue to be damaged unless Defendants are enjoined by this Court. Rovi
has suffered and continues to suffer irreparable injury for which there is no adequate
remedy at law. The balance of hardships favors Rovi, and public interest is not
disserved by an injunction.

9 163. Rovi is entitled to recover from Defendants all damages that Rovi has
10 sustained as a result of Defendants' infringement of the '741 Patent, including without
11 limitation lost profits and not less than a reasonable royalty.

FOURTH CLAIM FOR RELIEF

INFRINGEMENT OF U.S. PATENT NO. 9,578,363

164. Plaintiff realleges and incorporates by reference the allegations of paragraphs 1-163 of this Complaint.

17 165. The '363 Patent is valid and enforceable under United States Patent
18 Laws.

19 166. Rovi Guides, Inc. owns, by assignment, all right, title, and interest in and
20 to the '363 Patent.

167. A copy of the '363 Patent is attached as Exhibit G.

168. The '363 Patent was issued from U.S. Patent Application No.

|| 14/851,972, filed on September 11, 2015, and is a continuation of application No.

24 13/477,511, filed on May 22, 2012, now U.S. Patent No. 9,160,971, which is a
25 continuation of application No. 12/343,235, filed on December 23, 2008, now U.S.
26 Patent No. 8,234,668.

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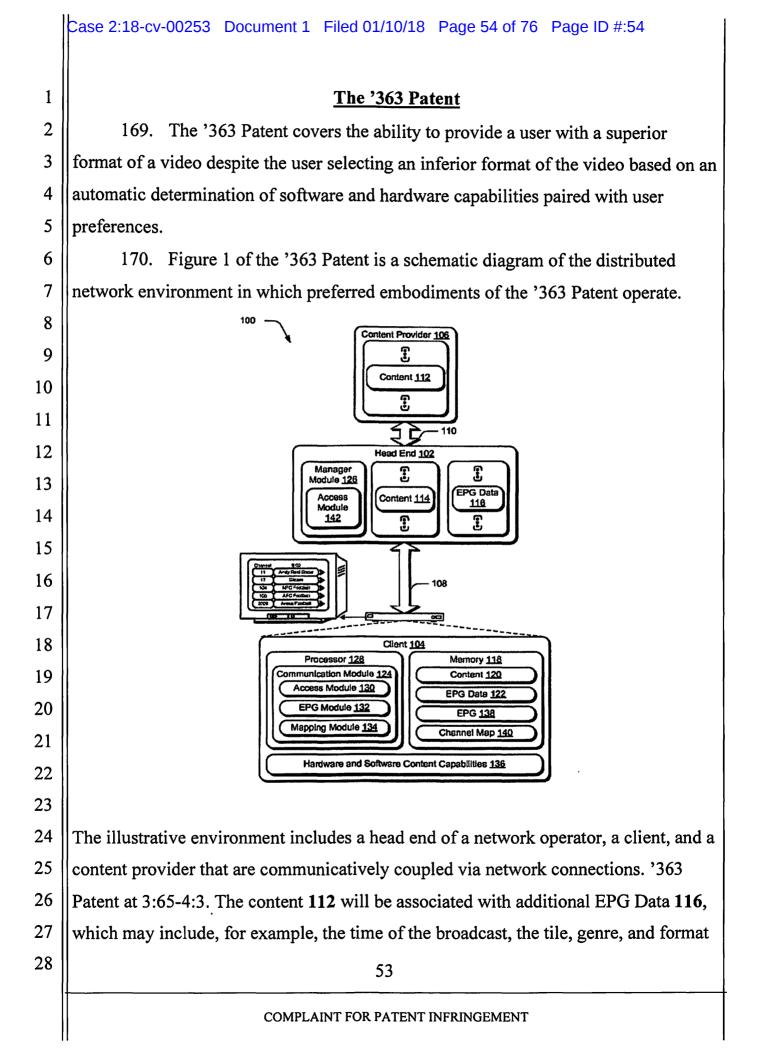
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(e.g., high definition versus standard definition). '363 Patent at 36-47. The '363 Patent
 further explains:

The communication module 124 is also illustrated as including an access module 130, an EPG module 132, and a mapping module 134. The access module 130 is representative of functionality to manage access to content, in an implementation, this access may be managed at the client104 based on hardware and software content capabilities 136 of the client 104 to output content 114. For instance, the hardware and software content capabilities 136 may support high-definition output, e.g., video and/or audio. Accordingly, the access module 130 may grant access to the high-definition content and restrict access to standard-definition content when matching content is available to the client 104.

13 || '363 Patent at 5:58-6:3.

14 171. Figure 6 of the '363 Patent is a flow diagram depicting an exemplary
15 embodiment of the procedure used to efficiently redirect a user request from a
16 standard-definition channel to a corresponding high-definition channel.

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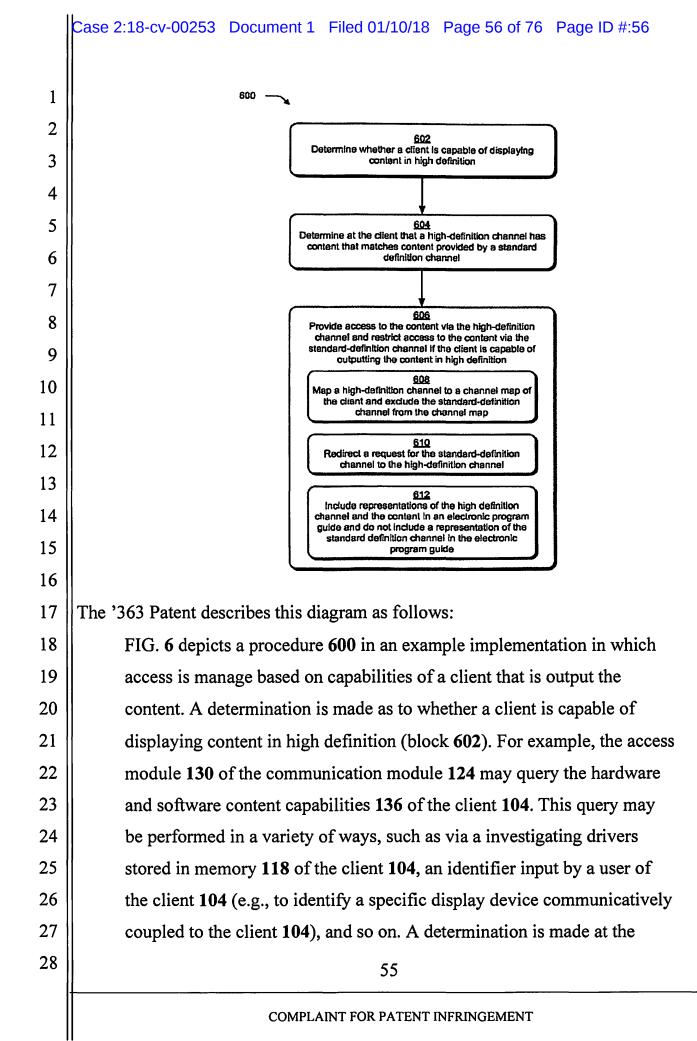
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client 104 that a high-definition channel 202 has content that matches content provided by standard-definition channel 204 (block 604). For instance, the access module 130 may examine EPG data 116 to determine that the high-definition channel 202 streams content that matches the content streamed on the standard-definition channel 204 For instance, the high-definition channel may be mapped to channel map of the client and the standard-definition channel may be excluded from the channel map (block 608). In another instance, a request for the standarddefinition channel may be redirected to the high-definition channel (block 610). For example, the client 104 of FIG. 3 may support output of high-definition content. Accordingly, the client 104 may redirect the request for channel 4 (e.g., the standard definition content available via a standard-definition channel) to channel 104, which matches the content of channel 4 but is provided in high definition.

15 363 Patent at 10:29-11:15.

16 172. The systems and methods of the '363 Patent allow users to efficiently
17 navigate the vast content of the typical IPG and ensure that a user will waste no time
18 needlessly searching for high-definition content.

Historical Context of the '363 Patent

173. For years standard-definition programming was the norm for broadcast,
cable, and satellite viewers across the country. With programming displayed in a 4:3
aspect ratio through a 480i signal, the content was far from sharp. Viewer's
experienced issues of ghosting, snowy images and interference. In the late 1980s highdefinition television technology was introduced and, later on, widely adopted in the
United States. The first public high-definition television broadcast in the United States
occurred on July 23, 1996 when a North Carolina station began broadcasting its

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content in HD.³⁵ In 1998, the American Advanced Television Systems Committee
 publicly launched its HDTV system with live coverage of famed astronaut John Glenn
 returning to space on board of the Space Shuttle *Discovery*.³⁶ HDTV quickly became
 the preferred means for viewing video content, as the high-resolution formats (720p,
 1080i, and 1080p) provided enhanced clarity, as compared to standard definition.

174. In response to viewers preferring high-definition content, cable providers 6 7 began offering both standard and high-definition channels for many of the most 8 popular networks. For instance, a cable subscriber operating an IPG may be able to 9 navigate to and view a standard definition ESPN channel or a high-definition ESPN 10 channel. "Because of the sheer amount of content available to users and the various 11 ways in which the content may be provided (e.g., standard definition versus high 12 definition), however, users may find it difficult to locate particular content of 13 interest." '363 Patent at 1:22-26. This issue was compounded by the fact that many 14 IPGs provided no means to quickly navigate between standard and high-definition 15 content. As a result, many users would "inadvertently forgo consumption of content that may be of interest to the user due to the difficulty in finding and consuming the 16 17 content." '363 Patent at 1:29-33.

'363 Patent Allegations

19 175. Defendants have infringed and are infringing, individually and/or jointly,
20 either literally or under the doctrine of equivalents, one or more claims of the '363
21 Patent in violation of 35 U.S.C. §§ 271, *et seq.*, directly and/or indirectly, by making,
22 using, offering for lease, leasing, distributing in the United States, and/or importing
23 into the United States without authority or license, set-top boxes, including without

25 See History of WRAL Digital, WRAL.COM (July 14, 2014),
 26 http://www.wral.com/history-of-wral-digital/1069461.

27 36 See Paige Albiniak, HDTV: Launched and Counting, HIGHBEAM RESEARCH (November 2, 1998), https://www.highbeam.com/doc/1G1-53190401.html.
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limitation, one or more of the Accused Products that infringe one or more claims of 1 the '363 Patent. Upon information and belief after reasonable investigation, the 2 3 Comcast X1 system is configured to receive a user selection of media content, i.e., a program for viewing, in a standard-definition format, access the requested media 4 content, determine whether a corresponding high-definition version of that same media content is available from another channel, determine whether the client device is capable of displaying the high-definition content, and automatically accessing and delivering the high-definition content to the client device. See Exhibit H.

9 176. Defendants have been, and currently are, active inducers of infringement 10 of one or more claims of the '363 Patent under 35 U.S.C. § 271(b). Upon information 11 and belief, one or more of the Accused Products of the Defendants directly and/or 12 indirectly infringe (by induced infringement) one or more claims of the '363 Patent, 13 literally and/or under the doctrine of equivalents.

14 177. For example, a preliminary claim chart applying to exemplary 15 independent claims 1 and 11 of the '363 Patent to the Accused Products (as defined herein, which include related hardware and software components) with a Comcast 16 PX001ANM X1 set-top box (Pace XG1v1) operating Comcast Xfinity X1 software 17 18 can be found at Exhibit H. This chart is an exemplary chart representative of the infringing operation of all Accused Products, which operate the Comcast Xfinity X1 19 20 software in the same manner.

178. Defendants induce infringement of the asserted claims of the '363 Patent 21 by users of the Accused Products in the United States. 22

23 179. With full knowledge of the '363 Patent, then, Comcast intentionally 24 encourages and aids at least service providers and end-user subscribers to directly 25 infringe the '363 Patent.

26 180. Comcast provides the Accused Products and instructions to Xfinity 27 subscribers so that such subscribers will use the Accused Products in a directly

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infringing manner. Comcast markets the Xfinity System to subscribers provides
 instructions to its subscribers on how to "Skip the Zeroes When You Change the
 Channel" by using the functionality of the '363 Patent on this website as well.³⁷

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181. Comcast subscribers directly infringe by using the Accused Products in their intended manner to infringe. Comcast induces such infringement by providing the Accused Products and instructions to enable and facilitate infringement, with full knowledge of the '363 Patent. *Id.* Upon information and belief, Comcast specifically intends that its actions will result in infringement of the '363 Patent or has taken deliberate actions to avoid learning of infringement.

10 182. This Complaint will serve as notice to Defendants of the '363 Patent and
11 its infringement, should Defendants contend that they did not previously have
12 knowledge thereof.

13 183. Additional allegations regarding Defendants' knowledge of the '363
14 Patent and willful infringement will likely have evidentiary support after a reasonable
15 opportunity for discovery.

16 184. Defendants' infringement of the '363 Patent is willful and deliberate,
17 entitling Rovi to enhanced damages and attorneys' fees.

18 185. Defendants' infringement of the '363 Patent is exceptional and entitles
19 Rovi to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C.
20 § 285.

186. Rovi has been damaged by Defendants' infringement of the '363 Patent
and will continue to be damaged unless Defendants are enjoined by this Court. Rovi
has suffered and continues to suffer irreparable injury for which there is no adequate

See Skip the Zeroes When You Change the Channel, XFINITY,
https://www.xfinity.com/support/articles/enable-disable-autotune (last visited Dec. 28, 2017).
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COMPLAINT FOR PATENT INFRINGEMENT

remedy at law. The balance of hardships favors Rovi, and public interest is not 1 2 disserved by an injunction.

187. Rovi is entitled to recover from Defendants all damages that Rovi has 4 sustained as a result of Defendants' infringement of the '363 Patent, including without limitation, lost profits and not less than a reasonable royalty.

FIFTH CLAIM FOR RELIEF

INFRINGEMENT OF U.S. PATENT NO. 9,621,956

188. Plaintiff realleges and incorporates by reference the allegations of 9 paragraphs 1-187 of this Complaint. 10

189. The '956 Patent is valid and enforceable under United States Patent Laws.

190. Rovi Guides, Inc. owns, by assignment, all right, title, and interest in and 13 to the '956 Patent. 14

191. A copy of the '956 Patent is attached as Exhibit I.

192. The '956 Patent was issued from U.S. Patent Application No.

14/725,875, filed on May 29, 2015, and is a continuation of application No. 17

12/616,309, filed on November 11, 2009, now U.S. Patent No. 9,055,325, which is a 18 continuation of application No. 10/804,486, filed on March 18, 2004, and claims 19 priority to U.S. Provisional Patent Application No. 60/456,080, filed on March 18, 20 2003. 21

The '956 Patent

193. The '956 Patent describes, among other things, a local IPG implemented 23 on interactive television program guide equipment (e.g., a receiver) that generates for 24 display a transport control interface. The equipment records time segments of a video 25 program in response to a specific user command and automatically buffers other time 26 segments of the video program. The transport control interface indicates a time length 27

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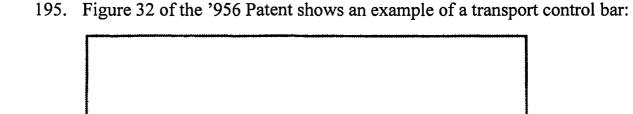
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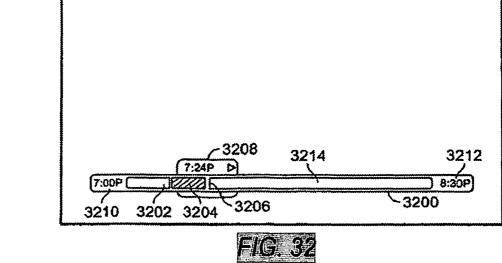
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of the video program and visually distinguishes the recorded time segment of the video program from the buffered time segment of the video program.

194. As the '956 Patent describes, a transport control interface may be provided by an IPG to provide information and control for live and recorded video programming. The transport control interface indicates to the user the particular time duration of a live or recorded program and any segments of the program that have been recorded. This feature allows a user to immediately ascertain which portions of the program are stored (and therefore available to view) in the buffer memory, which portions of the program are recorded on either a local or network storage circuitry, and which portions of the program are neither recorded or stored in buffer memory.





24 || The '956 Patent describes FIG. 32 as follows:

FIG. **32** shows one example of such a transport control bar **3200**. In this example, the currently viewed video may be shown, for example, in response to the user tuning to a broadcast channel. Start time **3210** on the

left side of the transport control bar (e.g., 7:00p) may indicate to the user the start time of the currently broadcasting program (includes broadcast of the program that is shown at substantially the time that it is being broadcasted and delayed broadcast of the program) or any other suitable time. End time **3212** on the right side of the transport control bar may indicate to the user the end time of the current program or any other suitable time. Transport control block 3208 may, for example, indicate the current time and the relative time position in the current program or the time span between start time 3210 and end time 3212, which may also be graphically indicated by tab 3206, or in the time span of region **3212**. In another suitable approach, end time **3212** may always be configured to be a fixed length of time from start time 3210 (e.g., two hours). In this case, start time 3210 and end time 3212 may be independent of the start and end times of the program being broadcast. In this embodiment, start time 3210 may be set to the nearest previous half hour when the user changes channels, for example 7:00pm when the user tunes at 7:14pm. End time **3212** would be set to 9:00pm in this example. When the viewer has watched the same channel long enough so that the time being viewed is no longer in the displayed span, the start and end times may be incremented by 30 minutes. For example, when the viewer watches the segment of the program that was broadcast at 9:00pm, start time **3210** may be changed to 7:30pm and end time **3212** may be changed to 9:30pm. In this embodiment, start time **3210** and end time **3212** may also be changed by a half hour at a time as the user rewinds or fast forwards through delayed content.

The interactive television program guide application may also change the color or other characteristics associated with the buffer of the recorded

MCKOOL SMITH, P.C.

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content to indicate that it corresponds to a user requested recording. '956 Patent at 30:18-67.

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<u>Historical Context of the '956 Patent</u>

196. In the years leading up to the invention of the '956 Patent, DVRs—
particularly those made by TiVo, had become increasingly popular. While the
capabilities of those DVRs were "numerous and comprehensive," some aspects of the
interfaces fell "short of providing sufficient information about recorded content,
content currently being recorded, and content to be recorded." '956 Patent 1:33-37.

9 197. It was, therefore, necessary and beneficial to develop a more desirable
10 interface that allowed viewers to more efficiently manage their program recordings.
11 With that goal in mind, the inventors of the '956 Patent developed a transport control
12 interface provided by an IPG to provide information and control for live and recorded
13 video programming.

'956 Patent Allegations

15 198. Defendants have infringed and are infringing, individually and/or jointly, either literally or under the doctrine of equivalents, one or more claims of the '956 16 17 Patent in violation of 35 U.S.C. §§ 271, et seq., directly and/or indirectly, by making, using, offering for lease, leasing, distributing in the United States, and/or importing 18 19 into the United States without authority or license, set-top boxes, including without 20 limitation, one or more of the Accused Products that infringe one or more claims of the '956 Patent. Upon information and belief after reasonable investigation, each of 21 22 the Accused Products comprises or is designed to be used in: a system for buffering 23 programs, the system comprising: a storage device; and an interactive application 24 implemented at least partially on user equipment and configured to: upon receiving a 25 user request, from a user input device, to tune to a first channel: receive a first 26 program from the first channel; and buffer the first program to enable the user to view 27 on a display device a previously received portion of the first program; receive from

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1 the user input device a user request to tune to a second channel; and upon receiving 2 the user request to tune to the second channel: receive a second program from the 3 second channel; and buffer on the storage device the second program to enable the user to view a previously received portion of the second program, wherein the first 4 5 program and second program are buffered in parallel, wherein an indicator that indicates the availability of at least one of the buffered first program and the buffered 6 second program is generated for display on the display device to the user, and wherein 7 8 the indicator also indicates a current play position and is interactive to enable the user to access another play position associated with at least one of the first program and the 9 second program. 10

11 199. Defendants have been, and currently are, active inducers of infringement
12 of one or more claims of the '956 Patent under 35 U.S.C. § 271(b). Upon information
13 and belief, one or more of the Accused Products of the Defendants directly and/or
14 indirectly infringe (by induced infringement) one or more claims of the '956 Patent,
15 literally and/or under the doctrine of equivalents.

200. For example, a preliminary claim chart applying to exemplary
independent claims 1 and 11 of the '956 Patent to the Accused Products (as defined
herein, which include related hardware and software components) with a Comcast
PX001ANM X1 set-top box (Pace XG1v1) operating Comcast Xfinity X1 software
can be found at Exhibit J. This chart is an exemplary chart representative of the
infringing operation of all Accused Products, which operate the Comcast Xfinity X1
software in the same manner.

23 201. Defendants induce infringement of the asserted claims of the '956 Patent
24 by users of the Accused Products in the United States.

25 202. With full knowledge of the '956 Patent, then, Comcast intentionally
26 encourages and aids at least service providers and end-user subscribers to directly
27 infringe the '956 Patent.

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203. Comcast provides the Accused Products and instructions to Xfinity subscribers so that such subscribers will use the Accused Products in a directly infringing manner. Comcast markets the Xfinity System to subscribers by touting the ability to "Provides details about the progress of the program you are watching" where "Green indicates the portion of the program stored in the buffer" and "If you press [the record button], the current program in the buffer will be recorded and the Status Bar will turn red."³⁸ Comcast provides instructions to its subscribers on how to use the functionality of the '956 Patent on this website as well.

204. Comcast subscribers directly infringe by using the Accused Products in
their intended manner to infringe. Comcast induces such infringement by providing
the Accused Products and instructions to enable and facilitate infringement, with full
knowledge of the '956 Patent.³⁹ Upon information and belief, Comcast specifically
intends that its actions will result in infringement of the '956 Patent or has taken
deliberate actions to avoid learning of infringement.

15 205. This Complaint will serve as notice to Defendants of the '956 Patent and
16 its infringement, should the '956 Defendants contend that they did not previously have
17 knowledge thereof.

18 206. Additional allegations regarding Defendants' knowledge of the '956
19 Patent and willful infringement will likely have evidentiary support after a reasonable
20 opportunity for discovery.

21 207. Defendants' infringement of the '956 Patent is willful and deliberate,
22 entitling Rovi to enhanced damages and attorneys' fees.

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 ³⁸ See Welcome to Xfinity TV: HD DVR Brochure, XFINITY, https://www.xfinity.com/~/media/files/welcome%20kits/dvr/moa25%20s25%20dvr% 20ig.ashx (last visited Dec. 28, 2017).
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 39 Id.

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208. Defendants' infringement of the '956 Patent is exceptional and entitles 1 Rovi to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 2 3 285.

4 209. Rovi has been damaged by Defendants' infringement of the '956 Patent 5 and will continue to be damaged unless Defendants are enjoined by this Court. Rovi has suffered and continues to suffer irreparable injury for which there is no adequate 6 remedy at law. The balance of hardships favors Rovi, and public interest is not 7 disserved by an injunction. 8

210. Rovi is entitled to recover from Defendants all damages that Rovi has 9 sustained as a result of Defendants' infringement of the '956 Patent, including without 10 limitation lost profits and not less than a reasonable royalty. 11

SIXTH CLAIM FOR RELIEF

INFRINGEMENT OF U.S. PATENT NO. 9,668,014

211. Plaintiff realleges and incorporates by reference the allegations of paragraphs 1-210 of this Complaint. 16

212. The '014 Patent is valid and enforceable under United States Patent 17 Laws. 18

213. Rovi Guides, Inc. owns, by assignment, all right, title, and interest in and 19 to the '014 Patent. 20

214. A copy of the '014 Patent is attached as Exhibit K.

215. The '014 Patent was issued from U.S. Patent Application No.

15/195,530, filed on June 28, 2016, and is a continuation of application No.

14/673,493, filed on March 30, 2015, now U.S. Patent No. 9,392,324. 24

The '014 Patent

216. The '014 Patent is directed to a method and system of resolving voice 26 commands for media assets that do not expressly name the media assets. The '014 27

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Patent discloses determining whether a media asset identifier from a voice command
completely matches any known media asset identifier and, based on determining it
does not, calculating a degree of similarity between the media asset identifier and
known media asset identifiers. The '014 Patent further discloses providing users with
an option to confirm that a suggested known media asset, which exceeds a threshold
of similarity, corresponds to the media asset that was the subject of the voice
command.

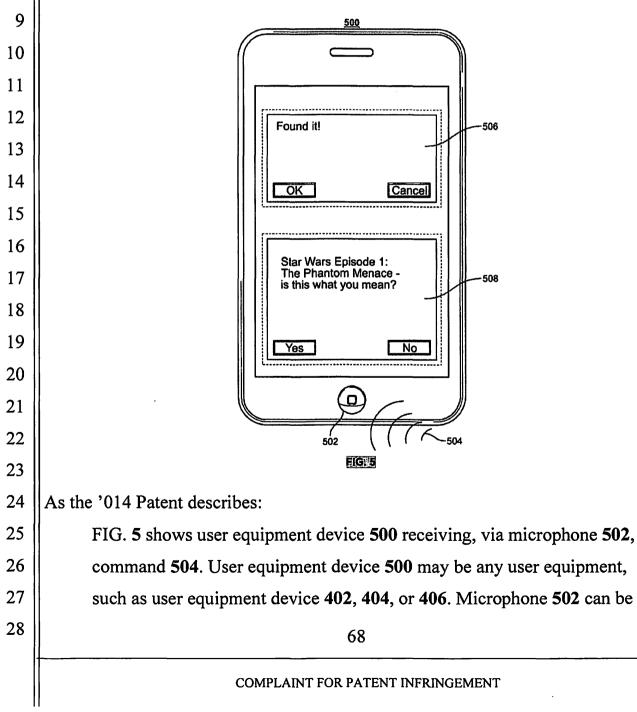
8 217. In one preferred embodiment of the patented invention, a system may 9 determine that a user "command comprises a received media asset identifier." '014 10 Patent at 3:33-34. Upon receiving this identifier, the system may then access "a 11 remote database stored on a remote server containing a list of known media asset 12 identifiers." '014 Patent at 3:37-41. From there, the system "may cross-reference the 13 received media asset identifier against the plurality of known media asset indentifiers. '014 Patent at 3:43-45. Even if the media asset identifier is not a perfect match to an 14 identifier known in the database, the "media guidance application may then calculate a 15 set of similarity metrics for the plurality of known media asset identifiers." '014 16 17 Patent at 3:56-58. In determining this similarity metric, the system may use a 18 "character-wise comparison, word-by-word comparison, categorical comparison . . . 19 or any other appropriate method of comparison. '014 Patent at 3:64-4:5. In accordance 20 with those methods, if the similarity metrics exceeds a threshold similarity, then the 21 system can ascertain a potential match. '014 Patent at 4:9-13. This potential match may then be displayed to the user for confirmation. For example, if a user requests 22 "Star Wars 1," the system may suggest "Star Wars Episode 1: The Phantom Menace." 23 24 '014 Patent at 4:16-20.

25 218. The systems and methods of the '014 Patent provide substantial
26 technological improvements in the field of media content searching. For example, the
27 '014 Patent allows users to more efficiently perform voice searches for media content

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contained in a vast library of content by increasing the likelihood of a correct response 1 to a user request through the use of the similarity metrics described in the '014 Patent. 2 3 As a result, users no longer have to perform commands with perfect accuracy and precision in order to return the desired result. This allows users to spend less time 4 searching and more time enjoying their desired media content.

219. Figure 5 is an illustrative embodiment of a user device on which the 6 media guidance application has been implemented in accordance with the principles 8 of the '014 Patent.



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any user input interface 310, and is presented in FIG. 5 as a microphone for illustrative purposes. The media guidance application may receive command 504 via user input interface 310 using audio recognition, video recognition (e.g., for a gestural command), touch recognition (e.g., for input on a touch-screen), text, or any other suitable means of communication. Command 504 may be received by microphone 502 either locally (as received through an auditory sensor such as a microphone, as depicted in FIG. 5). For example, the media guidance application, implemented on user equipment device 500, may detect that command 504, received with microphone 502, comprises an instruction to store a portion of "Star Wars Episode 1: The Phantom Menace." Alternatively, command 504 may be received by the media guidance application via control circuitry 304 of user equipment 500 from a remote source (e.g., from user equipment device 404 by way of communications network 414). The media guidance application may generate for display, on display 312 of user equipment device 500, an illustrative display including optional storage confirmation message 506 and optional media asset identifier confirmation message 508. Optional storage confirmation message 506 and optional media asset identifier confirmation message 508 are depicted as visual in FIG. 5, but the media guidance application may alternatively or additionally present audio confirmation (e.g., by way of speakers 314) or tactile confirmation (e.g., a series of vibrations generated using a vibration motor implemented in user equipment device 500). The media guidance application may present optional storage confirmation message 506 to the user in response to the media guidance application causing the portion of the media asset to be stored. For example, if the media guidance application identifies a free video-on-

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demand service as a source of the requested portion of "Star Wars
Episode 1: The Phantom Menace" and causes the portion to be stored, the
media guidance application may generate for display, on display 312,
optional storage confirmation message 506 with the phrase "The
requested portion has been saved" (not shown).

014 Patent at 21:47-22:36.

Historical Context of the '014 Patent

8 220. In the years leading up to the invention of the '014 Patent, cable and 9 satellite television providers had rapidly been increasing the scope of their offerings 10 by adding new channels to their subscription packages and building large on-demand 11 video libraries that a user could access. While these enhanced offerings were a marked 12 improvement over the limited amount of content previously available to cable 13 subscribers, these vast content libraries posed new problems; namely, users found it 14 cumbersome and time consuming to search for desired content. This problem was compounded by at least two factors. First, typical remote controls were not equipped 15 16 with QWERTY-style keyboards, which forced users to either search with an 17 overloaded key pad or waste time navigating a clumsy on-screen search interface. 18 Second, and even more frustrating, if a user entered in a search that was not accurate, 19 the system would likely return no results, forcing the user to start over once again.

20 221. The inventors of the '014 Patent addressed both of these issues by
21 combining voice-command technology, a robust media asset identifier database, and a
22 similarity metric analysis that allows users to quickly search a vast media catalogue
23 receive the desired content—even if the user request was not entirely accurate.

<u>'014 Patent Allegations</u>

25 222. Defendants have infringed and are infringing, individually and/or jointly,
26 either literally or under the doctrine of equivalents, one or more claims of the '014
27 Patent in violation of 35 U.S.C. §§ 271, *et seq.*, directly and/or indirectly, by making,

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using, offering for lease, leasing, distributing in the United States, and/or importing 1 into the United States without authority or license, including without limitation, one 2 3 or more of the Accused Products (hereafter the '014 Accused Products) that infringe one or more claims of the '014 Patent. On information and belief after reasonable 4 5 investigation, Comcast's X1 system, for users with either an X1 voice remote or the XFINITY TV remote app, practices all of the limitations of one or more claims of 6 7 U.S. Patent 9,668,014. Specifically, Comcast's X1 system practices a method for resolving a voice command for a media asset, where the voice command does not 8 9 expressly name the media asset.

10 223. Defendants have been, and currently are, active inducers of infringement
11 of one or more claims of the '014 Patent under 35 U.S.C. § 271(b). Upon information
12 and belief, one or more of the Accused Products of the Defendants directly and/or
13 indirectly infringe (by induced infringement) one or more claims of the '014 Patent,
14 literally and/or under the doctrine of equivalents.

15 224. For example, a preliminary claim chart applying to exemplary
independent claims 1 and 11 of the '014 Patent to the Accused Products (as defined
herein, which include related hardware and software components) with a voice
remote, mobile application, and/or Comcast PX001ANM X1 set-top box (Pace
XG1v1) operating Comcast Xfinity X1 software can be found at Exhibit L. This chart
is an exemplary chart representative of the infringing operation of all Accused
Products, which operate the Comcast Xfinity X1 software in the same manner.

22 225. Defendants induce infringement of the asserted claims of the '014 Patent
23 by users of the '014 Accused Products in the United States.

24 226. With full knowledge of the '014 Patent, then, Comcast intentionally
25 encourages and aids at least service providers and end-user subscribers to directly
26 infringe the '014 Patent.

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227. Comcast provides the Accused Products and instructions to Xfinity 1 subscribers so that such subscribers will use the Accused Products in a directly 2 infringing manner. Comcast markets the Xfinity System to subscribers by touting the 3 ability to let viewers "search for networks, shows and movies; set DVR recordings; 4 get recommendations; navigate Xfinity On Demand and more" by speaking to their 5 Xfinity voice remotes.⁴⁰ Comcast provides instructions to its subscribers on how to 6 use the functionality of the '014 Patent on its website through either the Xfinity Voice 7 Remote App or Xfinity TV Remote App.⁴¹ 8

228. Comcast subscribers directly infringe by using the Accused Products in 9 10 their intended manner to infringe. Comcast induces such infringement by providing the Accused Products and instructions to enable and facilitate infringement, with full 11 12 knowledge of the '014 Patent. Upon information and belief, Comcast specifically intends that its actions will result in infringement of the '014 Patent or has taken 13 14 deliberate actions to avoid learning of infringement.

15 229. This Complaint will serve as notice to Defendants of the '014 Patent and 16 its infringement, should Defendants contend that they did not previously have 17 knowledge thereof.

230. Additional allegations regarding Defendants' knowledge of the '014 18 Patent and willful infringement will likely have evidentiary support after a reasonable 19 20 opportunity for discovery.

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41 The X1 Voice Remote Overview; Download and Set Up the XFINITY TV 26 *Remote App On a Mobile Device*, XFINITY, https://www.xfinity.com/support/articles/downloading-cable-tv-app (last visited

Dec. 28, 2017). 28

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²² 40 Comcast Introduces Voice Controlled TV Remote, COMCAST (May 5, 2015), 23 http://corporate.comcast.com/news-information/news-feed/comcast-introduces-voicecontrolled-tv-remote; see also The X1 Voice Remote Overview, XFINITY, 24 https://www.xfinity.com/support/articles/get-to-know-xr11-remote (last visited Dec. 28, 2017). 25

231. Defendants' infringement of the '014 Patent is willful and deliberate,
 entitling Rovi to enhanced damages and attorneys' fees.

3 232. Defendants' infringement of the '014 Patent is exceptional and entitles
4 Rovi to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C.
5 § 285.

6 233. Rovi has been damaged by Defendants' infringement of the '014 Patent
7 and will continue to be damaged unless Defendants are enjoined by this Court. Rovi
8 has suffered and continues to suffer irreparable injury for which there is no adequate
9 remedy at law. The balance of hardships favors Rovi, and public interest is not
10 disserved by an injunction.

234. Rovi is entitled to recover from Defendants all damages that Rovi has
sustained as a result of Defendants' infringement of the '014 Patent, including without
limitation lost profits and not less than a reasonable royalty.

PRAYER FOR RELIEF

WHEREFORE, Rovi prays for a judgment in its favor and against Comcast and respectfully requests the following relief:

A judgment declaring that Comcast has infringed one or more claims of
 each of the Asserted Patents in this litigation pursuant to 35 U.S.C. §§ 271(a), and/or
 271(b);

A preliminary injunction pursuant to 35 U.S.C. § 283 in accordance with
 the principles of equity preventing Comcast, its officers, directors, attorneys, agents,
 servants, employees, parties in privity with, and all persons in active concert or
 participation with any of the foregoing, from continued leasing or offering for lease
 the X1 IPG Product to any cable operator or any Pay-TV provider that is not licensed
 by Rovi to make use, license, or sell any product offered by Comcast that practices,

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provides, or contains any method, apparatus, or system covered by one or more of the
 Asserted Patents;

3 3. A preliminary injunction pursuant to 35 U.S.C. § 283 in accordance with the principles of equity preventing Comcast, ots officers, directors, attorneys, agents, 4 servants, employees, parties in privity with, and all persons in active concert or 5 participation with any of the foregoing, from leasing, offering or providing to any of 6 7 its cable customers and consumer end users any IPG product solution that practices, provides, or contains any method, apparatus, or system covered by one or more of the 8 9 Asserted Patents commencing on a date ninety (90) days following the entry of the preliminary injunction; 10

An injunction pursuant to 35 U.S.C. § 283 permanently enjoining
 Comcast, its officers, directors, attorneys, agents, servants, employees, parties in
 privity with, and all persons in active concert or participation with, any of the
 foregoing, from continued acts of infringement, contributing to infringement, or
 inducing infringement of the Asserted Patents in this litigation;

16 5. A judgment requiring Comcast to make an accounting of damages
17 resulting from Defendants' infringement of the Asserted Patents in this litigation;

18 6. A judgment awarding Rovi its damages resulting from Comcast's
19 infringement of the Asserted Patents in this litigation, and increasing such damages
20 pursuant to 35 U.S.C. § 284 because of the willful and deliberate nature of
21 Defendants' conduct;

7. A judgment requiring Comcast to pay Rovi costs, expenses, and prejudgment and post-judgment interest for Defendants' infringement of each of the
Asserted Patents in this litigation;

8. A judgment finding that this is an exceptional case and awarding Rovi's
attorneys' fees pursuant to 35 U.S.C. § 285; and

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1	9. Such other relief as the Court deems just and proper.		
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6	6 Ku	Her	
7	BY		
8	8 RODERICK G. D	ORMAN	
9	9 ATTORNEYS FO ROVI GUIDES, I		
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12			
13	13 DEMAND FOR JURY TRIAL	DEMAND FOR JURY TRIAL	
14	In accordance with Rule 38 of the Federal Rules of Civil Procedure and Local		
15	Rule CV-38-1, Plaintiff respectfully demands a jury trial of	Rule CV-38-1, Plaintiff respectfully demands a jury trial of all issues triable to a jury.	
16			
17	DATED. January 10, 2016 Respectivity subit	itted,	
18	MICKOOL SMITT	Н, Р.С.	
19 20		Y	
21	21 BY 7, C		
22		ORMAN	
23	23 ATTORNEYS FO	OR PLAINTIFF	
24	24 ROVI GUIDES, I	NC.	
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	COMPLAINT FOR PATENT INFRINGEMENT		

MCKOOL SMITH, P.C.