UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

Before the Honorable David P. Shaw
Administrative Law Judge

In the Matter of **CERTAIN FITNESS DEVICES, STREAMING COMPONENTS THEREOF, AND SYSTEMS CONTAINING SAME**	**Investigation No. 337-TA-1265**

RESPONDENTS' NOTICE OF PRIOR ART

Pursuant to Order No. 2, Ground Rule 5, Respondents ICON Health & Fitness, Inc. and its subsidiaries Free Motion Fitness, Inc. and NordicTrack, Inc. (collectively, "ICON"), lululemon athletica inc. and Curiouser Products Inc. d/b/a MIRROR (collectively, "MIRROR"), and Peloton Interactive, Inc. ("Peloton") (ICON, MIRROR, and Peloton are referred to herein collectively as "Respondents") hereby provides its Notice of Prior Art.

Respondents identify prior art to the asserted patents in Appendices attached hereto, as follows: (1) U.S. Patent No. 9,407,564 (Ex. A); (2) U.S.Patent No. 10,469,554 (Ex. B); (3) U.S. Patent No. 10,469,555 (Ex. B); (4) U.S. Patent No. 10,757,156 (Ex. A); and U.S. Patent No. 10,951,680 (Ex. B). The prior art identified in Appendices A and B lists the prior art references on which Respondents may rely, either singly or in any combination, to establish the invalidity of the asserted claims of the asserted patents or to demonstrate the relevant state of the art or level of skill in the art.

Respondents may also rely on, either singly or in any combination, the prior art identified on the face of or during prosecution of the asserted patents or any related patents, or identified in other proceedings before the United States Patent and Trademark Office for the asserted patents

fuboTV Media Inc.
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or related patents.

Respondents may also rely on prior art identified or produced by Complainants or any subpoenaed third parties in this Investigation, prior art admitted into evidence or identified as an exhibit at the hearing or at deposition, and/or prior art identified during the remainder of fact and expert discovery.

Respondents may rely on documents and information that are not prior art, and therefore need not be disclosed in this Notice, for other purposes including, but not limited to, evidence of inherency in any of the prior art or establishing the prior art as prior art, including documents establishing the sales or use dates of prior art products.

Respondents may rely on any person identified as an author or inventor of any prior art identified herein as a prior inventor or as having prior knowledge of or as having previously used or offered for sale the alleged inventions of the asserted patents. Respondents may also rely on individuals, the names and addresses of which are within Complainants' possession, including Complainants' employees, former employees, consultants, and/or other persons affiliated with Complainants who may have knowledge of, or have previously made, used, sold or offered for sale, the alleged inventions of the asserted patents.

Respondents may supplement or amend this Notice as discovery proceeds, including third-party discovery. Respondents note that discovery, including third-party discovery, is ongoing. Claim construction briefing has just begun, thus Respondents' ability to understand the scope of potentially relevant prior art is limited. In addition, expert reports on infringement have not been exchanged, and expert discovery has not started. Respondents may amend and/or supplement this Notice and the attached Appendices A and B upon written notice for good cause shown to identify prior art references that may be discovered after the date of this Notice or to identify additional

prior art that may be rendered material based upon positions Complainants or its expert witnesses may adopt in this Investigation, or if Complainants attempt to rely on anyclaims, for any purpose, that have not been identified to date.

Dated: September 10, 2021

Respectfully submitted,

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Appendix A

U.S. Patent Nos. 9,407,564 and 10,757,156

Patent Prior Art

Country	Number	Date	Name of Patentee
CA	2466482	May 22, 2003	Dunning
DE	10101075	Jan. 11, 2001	Jerabek
EP	0695094	Jan. 31 1996	Adams
EP	0711077	May 8, 1996	Haskell
EP	0919952	Jun. 2, 1999	Mattavelli
EP	1202487	Oct. 31, 2001	Nagai
EP	1395014	Jun. 16, 2006	Rey
EP	1641271	Mar. 29, 2006	Klemets
EP	1670256	Jun. 14, 2006	Klemets
EP	1777969	Apr. 25, 2007	British Telecommunications PLC
EP	1298931	Apr. 2, 2003	Oplayo
EP	1394973	Mar. 3, 2004	Kitamura
GB	2367219	Nov. 1, 2000	Neeman
JP	2000/201343	Jul. 18, 2000	Chijitani
JP	2001/092752	Apr. 6, 2001	Shiomi
JP	2004/054930	Feb. 19, 2004	Klemets
JP	2011/004225	Jan. 6, 2011	Hodoshima
United States	4535355	Sep. 7, 1982	Arn
United States	4760442	Jul. 10, 1095	O'Connell
United States	4761684	Nov. 14, 1986	Clark
United States	4816905	Apr. 30, 1987	Tweedy
United States	4862264	Dec. 23, 1986	Wells
United States	4931950	Jun. 4, 1990	Isle
United States	4949169	Oct. 27, 1989	Lumelsky
United States	4949248	Jul. 15, 1988	Caro
United States	4963995	Dec. 27, 1988	Lang
United States	5014125	May. 5, 1989	Pocock
United States	5019900	Nov. 14, 1986	Clark
United States	5025457	Apr. 21, 1989	Ahmed
United States	5043885	Aug. 8, 1989	Robinson
United States	5050161	Dec. 4, 1989	Golestani
United States	5057932	Dec. 27, 1988	Lang
United States	5088107	Oct. 27, 1989	Piasecki
United States	5089885	Nov. 14, 1986	Clark
United States	5109281	Feb. 6, 1991	Kobori

United States	5119474	Jun. 16, 1989	Beitel
United States	5130792	Feb. 1, 1990	Tindell
United States	5132964	Mar. 17, 1988	Esaki
United States	5132992	Jan. 7, 1991	Yurt
United States	5164839	Dec. 27, 1988	Lang
United States	5168353	Dec. 21, 1990	Walker
United States	5168356	Feb. 27, 1991	Acampora
United States	5172413	Dec. 20, 1990	Bradley
United States	5208665	Aug. 20, 1987	McCalley
United States	5208810	Oct. 10, 1990	Park
United States	5214768	Nov. 1, 1989	Martin
United States	5231599	Dec. 1, 1988	Peters
United States	5245430	Feb. 8, 1990	Nishimura
United States	5247347	Sep. 27, 1991	Litteral
United States	5253275	Jan. 7, 1991	Yurt et al
United States	5262875	Apr. 30, 1992	Mincer
United States	5267334	May. 24, 1991	Normille
United States	5274758	Jun. 16, 1989	Beitel
United States	5307456	Dec. 4, 1990	MacKay
United States	5313454	Apr. 1, 1992	Bustini
United States	5325525	Apr. 4, 1991	Shan
United States	5341477	Feb. 24, 1989	Pitkin
United States	5359593	Aug. 26, 1993	Derby
United States	5361096	Feb. 27, 1991	Ohki
United States	5404446	Mar. 26, 1992	Bowater
United States	5408448	Oct. 8, 1993	Carman
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United States	5410326	Dec. 4, 1992	Goldstein
United States	5,414,455	Jul. 7, 1993	Hooper
United States	5414644	Nov. 24, 1993	Seaman
United States	5422674	Dec. 22, 1993	Hooper
United States	5428782	Sep. 28, 1989	White
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United States	5442389	Dec. 28, 1992	Blahut
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United States	5504670	Mar. 31, 1993	Barth
United States	5504744	Mar. 9, 1994	Adams
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United States	5513314	Jan. 27, 1995	Kandasamy
United States	5519435	Sep. 1, 1994	Anderson
United States	5519701	Mar. 29, 1995	Colmant
United States	5524193	Sep. 2, 1994	Covington
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United States	5537408	Feb. 3, 1995	Branstad
United States	5539479	May. 31, 1995	Bertram
United States	5543850	Jan. 17, 1995	Pratt
United States	5544170	Mar. 16, 1990	Kasahara
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United States	5550982	Jun. 24, 1993	Long
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United States	5577258	Jul. 13, 1994	Cruz
United States	5583561	Jun. 7, 1994	Baker
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United States	5633859	Sep. 16, 1994	Jain
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United States	5884298	Mar. 29, 1996	Smith, II
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United States	5953506	Dec. 17, 1996	Kalra
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United States	6185736	Sep. 30, 1996	Ueno
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United States	6195680	Jul. 23, 1998	Goldszmidt
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United States	6216163	Apr. 14, 1997	Bharali
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United States	6292834	Mar. 14, 1997	Ravi
United States	6292880	Apr. 15, 1998	Mattis
United States	6304295	Sep. 18, 1998	Krishnamurthy
United States	6308222	Jun. 3, 1996	Krueger
United States	6311251	Nov. 23, 1998	Merritt
United States	6314492	May 27, 1998	Allen
United States	6327421	Mar. 10, 1998	Tiwari
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United States	6342904	Dec. 17, 1998	Vasudevan
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United States	6351474	Jan. 14, 1998	Robinett
United States	6351767	Jan. 25, 1999	Batchelder
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United States	6378129	Jan. 24, 2000	Zetts
United States	6388992	Sep. 9, 1997	Aubert
United States	6388999	Dec. 17, 1997	Gorsuch
United States	6389467	Apr. 4, 1997	Eyal
United States	6389473	Mar. 24, 1999	Carmel
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United States	6401085	Mar. 5, 1999	Gershman
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United States	6421733	Mar. 25, 1997	Tso
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United States	6441754	Aug. 17, 1999	Wang
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United States	6449719	Nov. 9, 1999	Baker
United States	6463508	Jul. 19, 1999	Wolf
United States	6470378	Mar. 31, 1999	Tracton
United States	6473778	Dec. 24, 1998	Gibbon
United States	6473902	Apr. 4, 1999	Noritomi
United States	6473903	Dec. 30, 1996	Balakrishnan
United States	6483851	Nov. 13, 1998	Neogi
United States	6484199	Jan. 24, 2000	Eyal
United States	6484212	Apr. 20, 1999	Markowitz
United States	6486803	Sep. 22, 2000	Luby
United States	6490250	Mar. 9, 1999	Hinchley
United States	6490320	Feb. 2, 2000	Vetro
United States	6490627	Dec. 17, 1996	Kalra
United States	6493386	Feb. 2, 2000	Vetro
United States	6493748	Mar. 5, 1998	Nakayama
United States	6,498,897	May 27, 1998	Nelson
United States	6502135	Oct. 30, 1998	Munger
United States	6502139	Jun. 1, 1999	Birk
United States	6505169	Jan. 26, 2000	Bhagavath
United States	6509908	May 13, 1998	Croy
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United States	6529475	Dec. 16, 1998	Wan
United States	6535556	Apr. 12, 1996	Kato
United States	6535639	Mar. 12, 1999	Uchihachi
United States	6542546	Feb. 2, 2000	Vetro
United States	6552227	Mar. 14, 2000	Mendelovici
United States	6553376	Nov. 18, 1998	Lewis
United States	6567980	Aug. 14, 1997	Jain
United States	6570922	Nov. 24, 1998	Wang
United States	6574279	Feb. 2, 2000	Vetro
United States	6574591	Jul. 31, 1998	Kleiman
United States	6580437	Jun. 26, 2000	Liou
United States	6588018	Apr. 9, 1999	James
United States	6593860	Dec. 12, 2000	Lai
United States	6594751	Mar. 25, 1999	Leivent
United States	6601103	Aug. 22, 1996	Goldschmidt Iki

United States	6604118	Jul. 31, 1998	Kleiman
United States	6609253	Dec. 30, 1999	Swix
United States	6611530	Sep. 21, 1999	Apostolopoulos
United States	6611868	May 21, 1999	Arutyunov
United States	6611898	Dec. 22, 2000	Slattery
United States	6614763	Feb. 4, 1999	Kikuchi
United States	6615252	Mar. 10, 1997	Oka
United States	6618752	Apr. 18, 2000	Moore
United States	6622171	Sep. 15, 1998	Gupta
United States	6629153	Sep. 17, 1997	Gupta
United States	6631523	Mar. 29, 1996	Matthews
United States	6637031	Dec. 4, 1998	Chou
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United States	6654790	May 26, 2000	Ogle
United States	6665755	Dec. 22, 2000	Modelski
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United States	6671724	Mar. 21, 2000	Pandya
United States	6675199	Jul, 6, 2000	Mohammed
United States	6690646	Jul. 13, 1999	Fichou
United States	6691312	Mar. 19, 1999	Sen
United States	6697072	Mar. 26, 2001	Russell
United States	6697819	Jul. 30, 2001	Boudreau
United States	6701528	Jan. 26, 2000	Arsenault
United States	6708213	Dec. 6, 1999	Bommaiah
United States	6710822	Feb. 15, 1999	Walker
United States	6711741	Apr. 7, 1999	Yeo
United States	6714976	Mar. 20, 1997	Wilson
United States	6721723	Dec. 23, 1999	Gibson
United States	6721850	Feb. 27, 2001	Hofmann
United States	6725333	Apr. 22, 1999	Degenaro
United States	6731600	Feb. 8, 1999	Patel
United States	6732183	Dec. 31, 1996	Graham
United States	6732329	Mar. 27, 2001	Bace
United States	6735634	Jun. 10, 1999	Geagan
United States	6741552	Feb. 12, 1998	McCrosky
United States	6742082	Jun. 12, 2001	Lango
United States	6744763	Jan. 15, 1998	Jones

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United States	6747991	Apr. 26, 2000	Hemy
United States	6748481	Apr. 6, 1999	Parry
United States	6757255	Jul. 28, 1998	Aoki
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United States	6760749	May 10, 2000	Dunlap
United States	6760765	Nov. 9, 1999	Asai
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United States	6765878	Mar. 28, 2000	Carlson
United States	6769127	Jun. 16, 2000	Bonomi
United States	6771652	Nov. 23, 1999	Aydemir
United States	6771703	Jun. 30, 2000	Oguz
United States	6772375	Dec. 22, 2000	Banga
United States	6785288	Jul. 25, 1996	Enns
United States	6788882	Apr. 17, 1998	Geer
United States	6789106	Feb. 2, 2001	Eyer
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United States	6850965	Nov. 17, 1998	Allen
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United States	6965724	Mar. 30, 1995	Boccon-Gibod
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United States	6976090	Apr. 20, 2000	Ben-Shaul
United States	6985932	Nov. 30, 1994	Glaser
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United States	7111044	Jul. 17, 2002	Lee
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United States	7295520	Oct. 31, 2001	Lee
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United States	7310678	Jul. 28, 2000	Gunaseelan
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United States	7330908	Jun. 23, 2000	Jungck
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United States	7401351	Dec. 14, 2000	Boreczky
United States	7408984	Sep. 17, 2003	Lu
United States	7412531	Jan. 29, 2002	Lango
United States	7477688	Jan. 26, 2000	Zhang

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United States	7526565	Apr. 3, 2003	Amini
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United States	7577750	May 23, 2003	Shen
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United States	7707303	Sep. 6, 2002	Albers
United States	7719985	Sep. 6, 2000	Lee
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United States	7761609	Jan. 20, 2005	Srinivasan
United States	7779135	Apr. 26, 2002	Hudson
United States	7788395	Feb. 14, 2007	Bowra
United States	7797439	Jun. 23, 2003	Cherkasova
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United States	7873040	Aug. 20, 2007	Karlsgodt
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United States	8667158	Jan. 25, 2003	Jin
United States	8683066	Aug. 6, 2007	Hurst
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United States	2001/0017849	Nov. 14, 1997	Campanella
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United States	2001/0029548	Apr. 8, 2000	Srikantan
United States	2001/0034786	Mar. 15, 2000	Baumeister
United States	2001/0038649	Mar. 29, 2000	Hagai
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United States	2001/0047423	Dec. 15, 1999	Shao
United States	2001/0049826	Jan. 19, 2000	Wilf
United States	2002/0002708	Feb. 20, 2001	Arye
United States	2002/0007417	Apr. 1, 1999	Taylor
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United States	2002/0016969	Feb. 3, 2000	Kimble
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United States	2002/0040479	Oct. 4, 2000	Ehrman
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United States	2002/0052968	Jan. 31, 2000	Bonefas
United States	2002/0056098	Jun. 29, 1998	White
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United States	2002/0073167	Dec. 8, 1999	Powell
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United States	2002/0078176	Dec. 15, 2000	Nomura
United States	2002/0080286	Jan. 13, 1998	Dagtas
United States	2002/0080877	Dec. 27, 2000	Lu
United States	2002/0087634	Aug. 3, 1999	Ogle
United States	2002/0091840	Nov. 28, 2000	Pulier
United States	2002/0097750	Jul. 28, 2000	Gunaseelan
United States	2002/0100052	Jan. 6, 1999	Daniels
United States	2002/0103938	Jan. 31, 2001	Brooks
United States	2002/0116473	Feb. 16, 2001	Gemmell
United States	2002/0116585	Sep. 11, 2000	Scherr
United States	2002/0118809	Dec. 1, 2000	Eisenberg
United States	2002/0122491	Jan. 3, 2001	Karczewicz
United States	2002/0129159	Mar. 9, 2001	Luby
United States	2002/0131496	Jun. 20, 2001	Vasudevan
United States	2002/0133547	Mar. 15, 2001	Lin
United States	2002/0136164	Feb. 15, 2000	Coulombe

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United States	2002/0136406	Mar. 20, 2001	Fitzhardinge
United States	2002/0138619	Mar. 21, 2001	Ramaley
United States	2002/0138641	Mar. 26, 2001	Taylor
United States	2002/0144276	Mar. 30, 2001	Radford
United States	2002/0146102	Mar. 22, 2001	Lang
United States	2002/0147980	Apr. 9, 2001	Satoda
United States	2002/0152317	Apr. 17, 2001	Wang
United States	2002/0152318	Mar. 2, 2001	Menon
United States	2002/0154703	Jan. 26, 2000	Kubota
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United States	2002/0161847	Apr. 30, 2001	Weigand
United States	2002/0161898	Dec. 20, 2000	Hartop
United States	2002/0161908	Nov. 6, 2000	Benitez
United States	2002/0161911	Apr. 19, 2001	Pinckney
United States	2002/0162047	Dec. 24, 1997	Peters
United States	2002/0169926	Apr. 19, 2001	Pinckney
United States	2002/0170062	May 14, 2002	Chen
United States	2002/0170067	Mar. 23, 2001	Norstrom
United States	2002/0170068	Mar. 19, 2001	Rafey
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United States	2002/0174434	May 18, 2001	Lee
United States	2002/0176418	Apr. 19, 2001	Hunt
United States	2002/0178138	Mar. 15, 2001	Ender
United States	2002/0178330	Apr. 19, 2001	Schlowsky-Fischer
United States	2002/0181506	Jun. 4, 2001	Loguinov
United States	2002/0184391	Jun. 5, 2001	Phillips
United States	2002/0188745	Jun. 11, 2001	Hughes
United States	2002/0194151	Jun. 15, 2001	Fenton
United States	2002/0194608	Apr. 26, 2001	Goldhor
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United States	2003/0007464	Jun. 25, 2001	Balani
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United States	2003/0014684	Dec. 29, 2000	Kashyap
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United States	2003/0021166	Jul. 26, 2001	Soloff
United States	2003/0021282	Jul. 27, 2001	Hospodor
United States	2003/0037103	Mar. 14, 2001	Salmi

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United States	2003/0061305	Mar. 26, 2002	Copley
United States	2003/0065803	Sep. 28, 2001	Heuvelman
United States	2003/0066085	Dec. 10, 1996	Boyer
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United States	2003/0093802	Sep. 20, 2001	Cho
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United States	2003/0107994	May 18, 2000	Jacobs
United States	2003/0110505	Mar. 31, 1995	Vos
United States	2003/0120793	Dec. 21, 2001	Marjola
United States	2003/0135631	Dec. 28, 2001	Li
United States	2003/0140159	Dec. 12, 1995	Campbell
United States	2003/0145101	Jul. 6, 2001	Mitchell
United States	2003/0151753	Feb. 8, 2002	Li
United States	2003/0152036	Feb. 14, 2002	Quigg Brown
United States	2003/0154239	Jan. 11, 2002	Davis
United States	2003/0195977	Apr. 11, 2002	Liu
United States	2003/0198184	Aug. 31, 2001	Huang
United States	2003/0204519	Apr. 29, 2002	Sirivara
United States	2003/0204602	Apr. 26, 2002	Hudson
United States	2003/0217113	Apr. 8, 2002	Katz
United States	2003/0217362	Dec. 28, 2001	Summers
United States	2003/0220972	May 23, 2002	Montet
United States	2003/0236902	Jun. 19, 2002	Weiss
United States	2003/0236906	Jun. 24, 2002	Klemets
United States	2003/0236912	Jun. 24, 2002	Klemets
United States	2004/0003101	Jun. 26, 2002	Roth
United States	2004/0010613	Jul. 12, 2002	Apostolopoulos
United States	2004/0015995	Jun. 28, 2002	Shao
United States	2004/0030547	Dec. 15, 2000	Leaning
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United States	2004/0030797	Aug. 12, 2002	Akinlar
United States	2004/0031054	Jan. 4, 2001	Dankworth
United States	2004/0039837	Sep. 15, 1998	Gupta

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United States	2004/0054551	Nov. 22, 2000	Ausubel
United States	2004/0064207	Sep. 30, 2002	Zacks
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United States	2004/0073934	Sep. 30, 2002	Deshpande
United States	2004/0083283	Oct. 15, 2002	Sundaram
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United States	2004/0098748	Nov. 20, 2002	Bo
United States	2004/0103444	Nov. 26, 2002	Weinberg
United States	2004/0117427	Mar. 16, 2001	Allen
United States	2004/0117831	Jun. 28, 1999	Ellis
United States	2004/0133639	Sep. 1, 2000	Shuang
United States	2004/0136327	Feb. 11, 2003	Sitaraman
United States	2004/0143672	Jan. 7, 2003	Padmanabham
United States	2004/0153458	Nov. 8, 2002	Noble
United States	2004/0168052	Feb. 25, 2003	Clisham
United States	2004/0170392	Feb. 19, 2003	Lu
United States	2004/0177063	Mar. 6, 2003	Weber
United States	2004/0179032	Mar. 14, 2003	Huang
United States	2004/0190528	Mar. 26, 2003	Dacosta
United States	2004/0192322	Mar. 26, 2003	Dacosta
United States	2004/0196842	Apr. 4, 2003	Dobbins
United States	2004/0199472	Apr. 4, 2003	Dobbins
United States	2004/0199604	Apr. 4, 2003	Dobbins
United States	2004/0199655	Oct. 3, 2000	Davies
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United States	2004/0202109	Aug. 28, 2003	Akiyama
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United States	2004/0220926	Jan. 3, 2000	Lamkin
United States	2004/0221088	Mar. 27, 2001	Lisitsa
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United States	2005/0009520	Jul. 3, 2001	Herrero
United States	2005/0015509	Apr. 10, 2002	Sitaraman
United States	2005/0021814	Jun. 19, 2003	Wang
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United States	2005/0033855	Aug. 5, 2003	Moradi
United States	2005/0033856	Aug. 1, 2000	Li
United States	2005/0050152	Jun. 26, 2003	Penner
United States	2005/0055425	Jun. 12, 2001	Lango
United States	2005/0066063	Aug. 1, 2003	Grigorovitch
United States	2005/0071496	Jan. 29, 2001	Singal
United States	2005/0076136	Sep. 17, 2002	Cho
United States	2005/0084166	Jun. 25, 2002	Bonch
United States	2005/0097217	Aug. 9, 2000	Val
United States	2005/0108414	Nov. 14, 2003	Taylor
United States	2005/0120107	Apr. 24, 2003	Kagan
United States	2005/0123058	Apr. 27, 1999	Greenbaum
United States	2005/0138655	Dec. 22, 2003	Zimler
United States	2005/0165828	Jun. 12, 2001	Lango
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United States	2005/0188051	Dec. 19, 2003	Sneh
United States	2005/0204046	Jun. 20, 2002	Watanabe
United States	2005/0204385	Jul. 24, 2000	Sull
United States	2005/0207569	Dec. 16, 2004	Zhang
United States	2005/0223087	May 17, 2002	Van Der Stok
United States	2005/0229213	Jul. 14, 1998	Ellis
United States	2005/0232180	Feb. 2, 1999	Toporek
United States	2005/0240961	Jun. 11, 1999	Jerding
United States	2005/0251832	Mar. 9, 2004	Chiueh
United States	2005/0254508	May 13, 2004	Aksu
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United States	2006/0010003	Jul. 2, 2004	Kruse
United States	2006/0047779	Jul. 12, 2004	Deshpande
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United States	2006/0059223	Jun. 24, 2002	Klemets
United States	2006/0064500	Jun. 26, 2002	Roth
United States	2006/0080718	Dec. 20, 2001	Gray
United States	2006/0130118	Dec. 10, 2004	Damm
United States	2006/0133809	Dec. 17, 2004	Chow
United States	2006/0165166	Dec. 10, 2004	Chou

United States	2006/0168290	Nov. 28, 2000	Doron
United States	2006/0168295	Jun. 27, 2003	Batterberry
United States	2006/0168524	Feb. 17, 2005	Saeki
United States	2006/0184688	Aug. 2006	Ganguly
United States	2006/0206246	Oct. 28, 2004	Walker
United States	2006/0218264	Mar. 28, 2005	Ogawa
United States	2006/0236219	Apr. 19, 2005	Grigorovitch
United States	2006/0242315	Sep. 1, 2000	Nichols
United States	2006/0270404	May 13, 2005	Tuohino
United States	2006/0277564	Oct. 22, 2003	Jarman
United States	2006/0282540	Jun. 8, 2005	Tanimoto
United States	2006/0288099	May 6, 2005	Jefferson
United States	2007/0008884	Oct. 8, 2003	Tang
United States	2007/0024705	Aug. 1, 2005	Richter
United States	2007/0030833	Aug. 2, 2005	Pirzada
United States	2007/0037599	Sep. 17, 2004	Tillet
United States	2007/0067480	Sep. 19, 2005	Beek
United States	2007/0078768	Sep. 22, 2005	Dawson
United States	2007/0079325	Sep. 30, 2005	de Heer
United States	2007/0094405	Oct. 21, 2005	Zhang
United States	2007/0174471	Apr. 30, 2003	Van Rossum
United States	2007/0204310	Feb. 27, 2006	Hua
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United States	2008/0037527	Jul. 27, 2006	Chan
United States	2008/0046939	Jul. 26, 2006	Lu
United States	2008/0056373	Aug. 29, 2006	Newlin
United States	2008/0060029	Sep. 1, 2006	Park
United States	2008/0091838	Oct. 12, 2006	Miceli
United States	2008/0133766	May 5, 2006	Luo
United States	2008/0162713	Dec. 27, 2006	Bowra
United States	2008/0195744	Feb. 14, 2007	Bowra
United States	2008/0195745	Feb. 14, 2007	Bowra
United States	2008/0205291	Feb. 23, 2007	Li
United States	2008/0219151	Mar. 7, 2007	Ma
United States	2008/0263180	Apr. 19, 2007	Hurst
United States	2008/0281803	Dec. 22, 2003	Gentric
United States	2009/0006538	Jun. 29, 2007	Risney, Jr.
United States	2009/0049186	Aug. 16, 2007	Agnihotri
United States	2009/0055417	Aug. 20, 2007	Hannuksela

United States	2009/0055471	Aug. 21, 2007	Kozat
United States	2009/0055547	Apr. 26, 2002	Hudson
United States	2009/0132599	Nov. 16, 2007	Soroushian
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United States	2009/0210549	Apr. 26, 2002	Hudson
United States	2010/0098103	Jun. 21, 2007	Xiong
United States	2010/0158101	Dec. 22, 2008	Wu
United States	2010/0262711	Apr. 9, 2009	Bouazizi
United States	2014/0207966	Aug. 6, 2007	Hurst
United States	2015/0058496	Apr. 28, 2005	Hurst
United States	RE39184	Nov. 13, 1998	Schloss
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Publication Prior Art

Title	Date	Page Numbers
A New Adaptive Multimedia Streaming System for All-IP Multi-Service Network	March 1, 2004	*All pages*
Streaming Video over the Internet: Approaches and Directions	March 2001	*All pages*
Rate-distortion optimized receiver-driven streaming over best-effort networks	2001	*All pages*
Video coding for streaming media delivery on the internet	March 2001	*All pages*
Streaming Media Demystified	2002	*All pages*

System Prior Art

Name of System	Date	Exemplary Supporting Evidence
Level 3	Oct. 1, 2002	Level 3 CDN and technologies related to the SandpiperNetworks Footprint CDN (including RealNetworks Inc. RealSystem G2 integration). For example, the following documents provide disclosures regarding the Level 3 system: • Conklin • Sandpiper Adds RealSystem G2 to its Content Delivery Network August 4, 1999), RESP-PA02644-RESP-PA02645 • Sandpiper Networks Signs Partner Deals (October 7, 1999), RESP-PA02623-RESP-PA02624 • Improving Quality May Help to Boost Streaming Media (December 19, 1999), RESP-PA02625-RESP-PA02631 • Introduction to Streaming Media with RealOne Player (October 1, 2002), RESP-PA00001-RESP-PA00154 • RealNetworks Production Guide with RealOne Player (2002), RESP-PA02834-RESP-PA03495 • RealSystem G2 Production Guide (1998), RESP-PA03502-RESP-PA03631 • Streaming Video from End to End (February 28, 1999), RESP-PA03632-RESP-PA03640 • RealNetworks Tests G2 (July 13, 1998), RESP-PA03461-RESP-PA03642.
Limelight	Jan. 13, 2002	Limelight CDN (including EdgePrism and Orchestrate

		Platform). For example, the following documents provide disclosures regarding the Limelight system: • Fresh Approach (January 13, 2002), RESP-PA02632-RESP-PA02640.
Akamai	Jan. 2, 2002	Akamai CDN (including technologies related to the InterVu Inc. CDN and Speedera Networks Inc. CDN). For example, the following documents provide disclosures regarding the Akamai system: • Akamai Buys InterVu (February 7, 2000), RESP-PA02597-RESP-PA02599 • InterVu Streams Ahead Behind the Scenes (January 2, 2002), RESP-PA02600-RESP-PA02604 • InterVu Granted Key Internet Patent (December 16, 1999), RESP-PA02605-RESP-PA02606 • U.S. Patent No. 6,181,867 to Kenner, RESP-PA01300-RESP-PA01313 • U.S. Patent No. 6,112,239 to Kenner et al., RESP-PA01449-RESP-PA01465 • U.S. Patent No. 6,003,030 to Kenner et al., RESP-PA01676-RESP-PA01690 • U.S. Patent No. 6,625,643 to Colby et al., RESP-PA01720-RESP-PA01744 • U.S. Patent No. 6,154,744 to Kenner et al., RESP-PA01806-RESP-PA01819 • InterVu & Excalibur Partner to Deliver Live Internet Newscasts (December 9, 1999), RESP-PA02607-RESP-PA02608 • Sitaraman • A Transport Layer for Live Streaming in a Content Delivery Network, RESP-PA02554-RESP-PA02564 • U.S. Patent No. 6,665,726 to Leighton et al., RESP-PA02390-RESP-PA02399 •
IBM	Aug. 14, 2003	AIX Media Streamer & Video Charger and related streaming technologies. For example, the following documents provide disclosures regarding the IBM system: • Day 1 • Day 2 • Day 3 • U.S. Patent App. Pub. No. 2003/0152036 to Quigg Brown et al., RESP-PA01475-RESP-PA01486 • U.S. Patent App. Pub. No. 2003/0014684 to Kashyap, RESP-PA01560-RESP-PA01574 • IBM Goes Straight to Video (December 3, 1996), RESP-PA02567-RESP-PA02569 • IBM Digital Library Version 2 Expands Its Comprehensive Solution Framework (August 12, 1997), RESP-PA02570-RESP-PA02596

		• IBM VideoCharger (December 18, 1996), RESP-PA02646-RESP-PA02647.
Apple	Sep. 20, 2003	QuickTime media format including QuickTime player, QuickTime Streaming Server, Darwin Streaming Server, and Fast Start streaming technology (including, e.g., QuickTime 4 through 6; QuickTime Streaming Server 5.0). For example, the following documents provide disclosures regarding the Apple system: • SMD • Mac OS X Server QuickTime Steaming Server 5.0 Administration (September 12, 2003), RESP-PA00700-RESP-PA00764 • Darwin Streaming Server (1999), RESP-PA02641-RESP-PA02643QuickTime 6: Summary of Changes and Enhancements (July 1, 2002).
Microsoft	May 2003	Windows Media technologies including Windows Media Tools, Windows Media Services, Windows Media Center Extension, Windows Media Player, and related Intelligent Streaming technologies. For example, the following documents provide disclosures regarding the Microsoft system: • Introduction to Streaming Media with RealOne Player (October 1, 2002), RESP-PA00001-RESP-PA00154 • SMD • Ravi • Chou '031 • U.S. Patent No. 6,766,407 to Lisitsa et al., RESP-PA01745-RESP-PA01768 • U.S. Patent App. Pub. No. 2004/0221088 to Lisitsa et al., RESP-PA02025-RESP-PA0245 • Intelligent Streaming (May 2003), RESP-PA02349-RESP-PA2353 • Bill Gates Unveils the Next Wave of Digital Media with Windows Microsoft (September 3, 2002), RESP-PA02616-RESP-PA02622 • Microsoft Announces Beta Release of Windows Media Technologies 4.0 (April 13, 1999), RESP-PA02611-RESP-PA02615 • Improving Quality May Help to Boost Streaming Media (December 19, 1999), RESP-PA02625-RESP-PA02631.
Adobe	Nov. 15, 2002	Adobe and/or Macromedia Flash Player, Flash Communication Server, Flash Media Server, and related streaming technologies. For example, the following documents provide disclosures regarding the Adobe system: • Macromedia Delivers Macromedia Flash Communication Server MX (July 9, 2002)

		• Macromedia Flash Media Server 2 Now Available (Nov. 15, 2002) • SMD,

Individuals with Knowledge of Use or Sale of System Prior Art

Name of System	Name	Address
Level 3	Level 3 Communications LLC	c/o The Registered Agent The Corporation Trust Company Corporation Trust Center 1209 Orange Street Wilmington, DE 19801
Limelight	Limelight Networks, Inc.	c/o CT Corporation System 2390 E Camelback Road Phoenix, AZ 85016
Akamai	Akamai Technologies, Inc.	c/o Corporation Service Company 84 State Street Boston, MA 02109
IBM	International Business Machines Corp.	c/o CT Corporation System 330 N. Brand Blvd Glendale, CA 91203
Apple	Apple, Inc.	c/o Julia Lee Choi 1 Apple Park Way Cupertino, California 95014
Microsoft	Microsoft Corporation	c/o Corporation Service Company 300 Deschutes Way SW, Suite 208 MC-CSC1 Tumwater, WA 98501
Adobe	Adobe Inc.	c/o Corporation Service Company 251 Little Falls Drive Wilmington, DE 19808

Appendix B

U.S. Patent Nos. 10,469,554, 10,469,555, and 10,951,680

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United States	2003/0014684	Dec. 29, 2000	Kashyap
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United States	2005/0050152	Jun. 26, 2003	Penner
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United States	2005/0232180	Feb. 2, 1999	Toporek
United States	2005/0240961	Jun. 11, 1999	Jerding
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United States	2006/0053253	Jun. 26, 2002	Rot
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United States	2007/0067480	Sep. 19, 2005	Beek
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United States	2008/0120330	Apr. 7, 2005	Reed
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United States	2008/0205291	Feb. 23, 2007	Li
United States	2008/0219151	Mar. 7, 2007	Ma
United States	2008/0263180	Apr. 19, 2007	Hurst
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United States	2009/0132721	Nov. 16, 2007	Soroushian

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United States	2010/0098103	Jun. 21, 2007	Xiong
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United States	2014/0207966	Aug. 6, 2007	Hurst
United States	2015/0058496	Apr. 28, 2005	Hurst
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United States	5057932	Dec. 27, 1988	Lang
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United States	5109281	Feb. 6, 1991	Kobori
United States	5119474	Jun. 16, 1989	Beitel
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United States	5132964	Mar. 17, 1988	Esaki
United States	5132992	Jan. 7, 1991	Yurt
United States	5164839	Dec. 27, 1988	Lang
United States	5168353	Dec. 21, 1990	Walker
United States	5168356	Feb. 27, 1991	Acampora
United States	5172413	Dec. 20, 1990	Bradley
United States	5208665	Aug. 20, 1987	McCalley
United States	5208810	Oct. 10, 1990	Park
United States	5214768	Nov. 1, 1989	Martin
United States	5231599	Dec. 1, 1988	Peters
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United States	5253275	Jan. 7, 1991	Yurt et al

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United States	5267334	May. 24, 1991	Normille
United States	5274758	Jun. 16, 1989	Beitel
United States	5307456	Dec. 4, 1990	MacKay
United States	5313454	Apr. 1, 1992	Bustini
United States	5325525	Apr. 4, 1991	Shan
United States	5341477	Feb. 24, 1989	Pitkin
United States	5359593	Aug. 26, 1993	Derby
United States	5361096	Feb. 27, 1991	Ohki
United States	5404446	Mar. 26, 1992	Bowater
United States	5408448	Oct. 8, 1993	Carman
United States	5408465	Jun. 21, 1993	Gusella
United States	5410326	Dec. 4, 1992	Goldstein
United States	5414644	Nov. 24, 1993	Seaman
United States	5422674	Dec. 22, 1993	Hooper
United States	5428782	Sep. 28, 1989	White
United States	5434848	Jul. 28, 1994	Chimento, Jr.
United States	5440334	Feb. 1, 1993	Walters
United States	5442389	Dec. 28, 1992	Blahut
United States	5455910	Jan. 6, 1993	Johnson
United States	5463422	Oct. 13, 1993	Simpson
United States	5467413	May. 20, 1993	Barrett
United States	5477397	Feb. 23, 1993	Naimpally
United States	5481312	Sep. 12, 1994	Cash
United States	5485211	Nov. 30, 1993	Kuzma
United States	5487167	Dec. 31, 1991	Dinallo
United States	5490252	Sep. 30, 1992	Macera
United States	5504670	Mar. 31, 1993	Barth
United States	5504744	Mar. 9, 1994	Adams
United States	5508942	Nov. 24, 1993	Agarwal
United States	5513181	Feb. 17, 1995	Bresalier
United States	5513314	Jan. 27, 1995	Kandasamy
United States	5519435	Sep. 1, 1994	Anderson
United States	5519701	Mar. 29, 1995	Colmant
United States	5524193	Sep. 2, 1994	Covington
United States	5533021	Feb. 3, 1995	Branstad
United States	5537408	Feb. 3, 1995	Branstad
United States	5539479	May. 31, 1995	Bertram
United States	5543850	Jan. 17, 1995	Pratt
United States	5544170	Mar. 16, 1990	Kasahara

United States	5544327	Mar. 1, 1994	Dan
United States	5548724	Mar. 22, 1993	Akizawa
United States	5550982	Jun. 24, 1993	Long
United States	5555244	May. 19, 1994	Gupta
United States	5566175	Jun. 11, 1992	Davis
United States	5568181	Dec. 9, 1993	Greenwood
United States	5572260	Mar. 20, 1995	Onishi
United States	5574724	May. 26, 1995	Bales
United States	5574861	Dec. 21, 1993	Lorvig
United States	5577258	Jul. 13, 1994	Cruz
United States	5583561	Jun. 7, 1994	Baker
United States	5583868	Jul. 25, 1994	Rashid
United States	5583937	Dec. 21, 1990	Ullrich
United States	5583980	Dec. 22, 1993	Anderson
United States	5586264	Sep. 8, 1994	Belknap
United States	5594911	Jul. 13, 1994	Cruz
United States	5600775	Aug. 26, 1994	King
United States	5602582	Nov. 22, 1994	Wanderscheid
United States	5602992	Nov. 29, 1993	Danneels
United States	5603058	Sep. 8, 1994	Belknap
United States	5606359	Jun. 30, 1994	Youden
United States	5606693	Oct. 2, 1991	Nilsen
United States	5610653	Feb. 7, 1992	Abecassis
United States	5612742	Oct. 19, 1994	Krause
United States	5615362	Aug. 2, 1993	Jensen
United States	5617142	Nov. 8, 1994	Hamilton
United States	5619249	Sep. 14, 1994	Billock
United States	5619733	Nov. 10, 1994	Noe
United States	5621728	Sep. 12, 1994	Lightfoot
United States	5623690	Jun. 3, 1992	Palmer
United States	5623699	Dec. 6, 1994	Blakeslee
United States	5625407	Jul. 8, 1994	Biggs
United States	5630007	Mar. 30, 1995	Kobayashi
United States	5631693	Oct. 25, 1993	Wunderlich
United States	5633810	Dec. 14, 1995	Mandal
United States	5633859	Sep. 16, 1994	Jain
United States	5659539	Jul. 14, 1995	Porter
United States	5663952	Jul. 7, 1995	Gentry, Jr.
United States	5666487	Jun. 28, 1995	Goodman
United States	5671225	Sep. 1, 1995	Hooper

United States	5675732	May. 8, 1995	Majeti
United States	5682597	Jun. 15, 1995	Ganek
United States	5694334	Sep. 8, 1994	Donahue
United States	5701316	Aug. 31, 1995	Alferness
United States	5706053	Sep. 29, 1994	Urano
United States	5717691	Oct. 30, 1995	Dighe
United States	5732218	Jan. 2, 1997	Bland
United States	5737747	Oct. 27, 1995	Vishlitzky
United States	5742343	Jul. 13, 1993	Haskell
United States	5742610	Feb. 6, 1996	Natarajan
United States	5754784	Dec. 21, 1993	Garland
United States	5767907	Oct. 11, 1994	Pearlstein
United States	5768527	Apr. 23, 1996	Zhu
United States	5768539	May. 27, 1994	Metz
United States	5774668	Jun. 7, 1995	Choquier
United States	5778143	Jan. 13, 1993	Boyce
United States	5778181	Mar. 8, 1996	Hidary
United States	5787472	Jul. 31, 1995	Dan
United States	5790543	Sep. 25, 1995	Cloutier
United States	5796724	Dec. 28, 1995	Rajamani
United States	5799185	Apr. 10, 1995	Watanabe
United States	5802311	Jun. 15, 1995	Wronski
United States	5812786	Jun. 21, 1995	Seazholtz
United States	5812788	Jul. 21, 1995	Agarwal
United States	5815492	Jun. 20, 1996	Berthaud
United States	5815505	Aug. 13, 1996	Mills
United States	5818438	Apr. 25, 1995	Howe
United States	5818439	Feb. 20, 1995	Nagasaka
United States	5822524	Jul. 21, 1995	Chen
United States	5822528	Oct. 3, 1995	Amano
United States	5822537	Feb. 24, 1994	Katseff
United States	5825771	Nov. 10, 1994	Cohen
United States	5835495	Oct. 11, 1995	Ferriere
United States	5835667	Oct. 14, 1994	Wactlar
United States	5838683	Mar. 13, 1995	Corley
United States	5841432	Feb. 9, 1996	Carmel
United States	5844620	Aug. 11, 1995	Coleman
United States	5852565	Jan. 30, 1996	Demos
United States	5854887	Jul. 29, 1994	Kindell
United States	5854894	Jul. 26, 1995	Lancaster

United States	5859667	Sep. 30, 1993	Kondo
United States	5864682	Jul. 14, 1995	Porter
United States	5867230	Jun. 30, 1997	Wang
United States	5870146	Jan. 21, 1997	Zhu
United States	5877755	Jun. 8, 1994	Hellhake
United States	5881050	Jul. 23, 1996	Chevalier
United States	5884056	Dec. 28, 1995	Steele
United States	5884298	Mar. 29, 1996	Smith, II
United States	5886733	May. 17, 1996	Zdepski
United States	5886995	Sep. 5, 1996	Arsenault
United States	5890010	Feb. 7, 1994	Nishigami
United States	5892549	Sep. 15, 1994	Feng
United States	5900868	Apr. 1, 1997	Duhault
United States	5913038	Dec. 13, 1996	Griffiths
United States	5916307	Jun. 5, 1996	Piskiel
United States	5917488	Aug. 21, 1996	Anderson
United States	5918002	Mar. 14, 1997	Klemets
United States	5918020	Feb. 28, 1997	Blackard
United States	5920705	Jan. 31, 1996	Lyon
United States	5923814	Jan. 13, 1993	Boyce
United States	5926205	Oct. 19, 1994	Krause
United States	5926226	Aug. 9, 1996	Proctor
United States	5931961	May. 8, 1996	Ranganathan
United States	5933500	May. 31, 1996	Blatter
United States	5940072	Aug. 15, 1996	Jahanghir
United States	5941951	Oct. 31, 1997	Day
United States	5953506	Dec. 17, 1996	Kalra
United States	5956088	Nov. 21, 1995	Shen
United States	5958010	Mar. 20, 1997	Agarwal
United States	5959674	Sep. 21, 1996	Jang
United States	5960452	Dec. 23, 1996	Chi
United States	5963202	Apr. 14, 1997	Polish
United States	5966122	Mar. 8, 1996	Itoh
United States	5978544	Jun. 28, 1993	Shimada
United States	5978567	Jul. 27, 1994	Rebane
United States	5982436	Mar. 28, 1997	Balakrishnan
United States	5983005	May. 9, 1996	Monteiro
United States	5983263	Jan. 2, 1998	Rothrock
United States	5991307	Apr. 5, 1996	Komuro
United States	5995155	Jul. 17, 1995	Schindler

United States	5995650	Mar. 21, 1996	Migdal
United States	5996015	Oct. 31, 1997	Day
United States	5996025	Oct. 31, 1997	Day
United States	5999906	Sep. 24, 1997	Mercs
United States	6,498,897	May 27, 1998	Nelson
United States	6005621	Dec. 23, 1996	Linzer
United States	6011776	Jun. 20, 1996	Berthaud
United States	6012100	Jul. 7, 1997	Frailong
United States	6014694	Jun. 26, 1997	Aharoni
United States	6014706	Jan. 30, 1997	Cannon
United States	6018359	Apr. 24, 1998	Kermode
United States	6018768	Mar. 8, 1996	Ullman
United States	6026439	Oct. 28, 1997	Chowdhury
United States	6031960	Jun. 7, 1995	Lane
United States	6041345	Mar. 8, 1996	Levi
United States	6047304	Jul. 29, 1997	Ladwig
United States	6054943	Mar. 25, 1998	Lawrence
United States	6061056	Mar. 4, 1996	Menard
United States	6061504	Oct. 27, 1995	Tzelnic
United States	6085193	Sep. 29, 1997	Malkin
United States	6091775	Apr. 17, 1997	Hibi
United States	6091777	Sep. 18, 1997	Guetz
United States	6098082	Jul. 15, 1996	Gibbon
United States	6098096	Dec. 9, 1996	Tsirigotis
United States	6104334	Dec. 31, 1997	Allport
United States	6104441	Apr. 29, 1998	Wee
United States	6108382	Feb. 6, 1998	Gringeri
United States	6111567	Apr. 3, 1997	Savchenko
United States	6118450	Apr. 3, 1998	Proehl
United States	6118817	Mar. 14, 1997	Wang
United States	6119154	Jul. 14, 1995	Weaver
United States	6120149	Oct. 31, 1997	Hosoi
United States	6122660	Feb. 22, 1999	Baransky
United States	6134243	Jan. 15, 1998	Jones
United States	6134559	Apr. 27, 1998	Brumme
United States	6139197	Mar. 4, 1997	Banks
United States	6141447	Nov. 21, 1996	Linzer
United States	6141686	Mar. 13, 1998	Jackowski
United States	6144375	Aug. 14, 1998	Jain
United States	6148005	Oct. 9, 1997	Paul

United States	6151632	Mar. 14, 1997	Chaddha
United States	6154489	Mar. 30, 1998	Kleider
United States	6154600	Aug. 6, 1996	Newman
United States	6154771	Jun. 1, 1998	Rangan
United States	6161137	Mar. 31, 1997	Ogdon
United States	6161201	Feb. 26, 1998	Payne
United States	6172672	Dec. 18, 1996	Ramasubramanian
United States	6173317	Mar. 14, 1997	Chaddha
United States	6181711	Jun. 26, 1997	Zhang
United States	6185573	Apr. 22, 1998	Angelucci
United States	6185625	Dec. 20, 1996	Tso
United States	6185736	Sep. 30, 1996	Ueno
United States	6188398	Jun. 2, 1999	Rector
United States	6195680	Jul. 23, 1998	Goldszmidt
United States	6195692	Jun. 2, 1997	Hsu
United States	6209041	Apr. 4, 1997	Shaw
United States	6216163	Apr. 14, 1997	Bharali
United States	6219339	Feb. 20, 1998	Doshi
United States	6226328	May 1, 2001	Assuncao
United States	6236395	Feb. 1, 1999	Sezan
United States	6240105	Mar. 30, 1998	Zetts
United States	6263371	Jun. 10, 1999	Geagan
United States	6266813	May 11, 1998	Ihara
United States	6269374	May 26, 1998	Chen
United States	6269394	Jun. 7, 1995	Kenner
United States	6271892	Jun. 2, 1994	Gibbon
United States	6272148	Sep. 22, 1997	Takagi
United States	6275507	Sep. 26, 1997	Anderson
United States	6281940	Mar. 31, 1999	Sciammarella
United States	6282206	Oct. 9, 1997	Hindus
United States	6292466	Dec. 13, 1995	Droz
United States	6292512	Jul. 6, 1998	Radha
United States	6292834	Mar. 14, 1997	Ravi
United States	6292880	Apr. 15, 1998	Mattis
United States	6304295	Sep. 18, 1998	Krishnamurthy
United States	6308222	Jun. 3, 1996	Krueger
United States	6311251	Nov. 23, 1998	Merritt
United States	6314492	May 27, 1998	Allen
United States	6327421	Mar. 10, 1998	Tiwari
United States	6329165	Dec. 30, 1999	Chattoraj

United States	6339619	Aug. 5, 1998	Sugiyama
United States	6342904	Dec. 17, 1998	Vasudevan
United States	6349410	Aug. 4, 1999	Lortz
United States	6351471	Jan. 14, 1998	Robinett
United States	6351474	Jan. 14, 1998	Robinett
United States	6351767	Jan. 25, 1999	Batchelder
United States	6356565	Jun. 19, 1997	Bouyer
United States	6366614	Oct. 11, 1996	Pian
United States	6366888	Mar. 29, 1999	Kroon
United States	6366970	Apr. 1, 1999	Wolff
United States	6374289	Oct. 5, 1998	Delaney
United States	6378129	Jan. 24, 2000	Zetts
United States	6388992	Sep. 9, 1997	Aubert
United States	6388999	Dec. 17, 1997	Gorsuch
United States	6389467	Apr. 4, 1997	Eyal
United States	6389473	Mar. 24, 1999	Carmel
United States	6393060	Dec. 31, 1997	Jeong
United States	6401085	Mar. 5, 1999	Gershman
United States	6405371	Jun. 3, 1997	Oosterhout
United States	6407680	Dec. 22, 2000	Lai
United States	6408005	Sep. 5, 1997	Fan
United States	6412092	Apr. 14, 1999	Raghunath
United States	6414725	Apr. 16, 1998	Clarin
United States	6415326	Sep. 15, 1998	Gupta
United States	6421706	Feb. 25, 1998	McNeill
United States	6421733	Mar. 25, 1997	Tso
United States	6424624	Oct. 16, 1997	Galand
United States	6430354	Dec. 16, 1997	Watanabe
United States	6434195	Nov. 20, 1998	Luthra
United States	6434197	Jan. 7, 1999	Wang
United States	6441754	Aug. 17, 1999	Wang
United States	6449608	Nov. 10, 1997	Morita
United States	6449719	Nov. 9, 1999	Baker
United States	6463508	Jul. 19, 1999	Wolf
United States	6470378	Mar. 31, 1999	Tracton
United States	6473778	Dec. 24, 1998	Gibbon
United States	6473902	Apr. 4, 1999	Noritomi
United States	6473903	Dec. 30, 1996	Balakrishnan
United States	6483851	Nov. 13, 1998	Neogi
United States	6484199	Jan. 24, 2000	Eyal

United States	6484212	Apr. 20, 1999	Markowitz
United States	6486803	Sep. 22, 2000	Luby
United States	6490250	Mar. 9, 1999	Hinchley
United States	6490320	Feb. 2, 2000	Vetro
United States	6490627	Dec. 17, 1996	Kalra
United States	6493386	Feb. 2, 2000	Vetro
United States	6493748	Mar. 5, 1998	Nakayama
United States	6496980	Dec. 7, 1998	Tillman
United States	6502135	Oct. 30, 1998	Munger
United States	6502139	Jun. 1, 1999	Birk
United States	6505169	Jan. 26, 2000	Bhagavath
United States	6509908	May 13, 1998	Croy
United States	6510553	Oct. 26, 1998	Hazra
United States	6516361	Sep. 17, 1998	Lym
United States	6526022	Jun. 30, 1998	Chiu
United States	6529475	Dec. 16, 1998	Wan
United States	6535556	Apr. 12, 1996	Kato
United States	6535639	Mar. 12, 1999	Uchihachi
United States	6542546	Feb. 2, 2000	Vetro
United States	6552227	Mar. 14, 2000	Mendelovici
United States	6553376	Nov. 18, 1998	Lewis
United States	6567980	Aug. 14, 1997	Jain
United States	6570922	Nov. 24, 1998	Wang
United States	6574279	Feb. 2, 2000	Vetro
United States	6574591	Jul. 31, 1998	Kleiman
United States	6580437	Jun. 26, 2000	Liou
United States	6588018	Apr. 9, 1999	James
United States	6593860	Dec. 12, 2000	Lai
United States	6594751	Mar. 25, 1999	Leivent
United States	6601103	Aug. 22, 1996	Goldschmidt Iki
United States	6604118	Jul. 31, 1998	Kleiman
United States	6609253	Dec. 30, 1999	Swix
United States	6611530	Sep. 21, 1999	Apostolopoulos
United States	6611868	May 21, 1999	Arutyunov
United States	6611898	Dec. 22, 2000	Slattery
United States	6614763	Feb. 4, 1999	Kikuchi
United States	6615252	Mar. 10, 1997	Oka
United States	6618752	Apr. 18, 2000	Moore
United States	6622171	Sep. 15, 1998	Gupta
United States	6625656	May. 4, 1999	Goldhor

United States	6629153	Sep. 17, 1997	Gupta
United States	6631523	Mar. 29, 1996	Matthews
United States	6637031	Dec. 4, 1998	Chou
United States	6643259	Nov. 12, 1999	Borella
United States	6643821	Nov. 30, 2000	Karim
United States	6650705	Apr. 20, 1999	Vetro
United States	6651103	Aug. 3, 1999	Markowitz
United States	6654790	May 26, 2000	Ogle
United States	6665755	Dec. 22, 2000	Modelski
United States	6668377	May 5, 1995	Dunn
United States	6671724	Mar. 21, 2000	Pandya
United States	6675199	Jul, 6, 2000	Mohammed
United States	6690646	Jul. 13, 1999	Fichou
United States	6691312	Mar. 19, 1999	Sen
United States	6697072	Mar. 26, 2001	Russell
United States	6697819	Jul. 30, 2001	Boudreau
United States	6701528	Jan. 26, 2000	Arsenault
United States	6708213	Dec. 6, 1999	Bommaiah
United States	6710822	Feb. 15, 1999	Walker
United States	6711741	Apr. 7, 1999	Yeo
United States	6714976	Mar. 20, 1997	Wilson
United States	6721723	Dec. 23, 1999	Gibson
United States	6721850	Feb. 27, 2001	Hofmann
United States	6725333	Apr. 22, 1999	Degenaro
United States	6731600	Feb. 8, 1999	Patel
United States	6732183	Dec. 31, 1996	Graham
United States	6732329	Mar. 27, 2001	Bace
United States	6735634	Jun. 10, 1999	Geagan
United States	6741552	Feb. 12, 1998	McCrosky
United States	6742082	Jun. 12, 2001	Lango
United States	6744763	Jan. 15, 1998	Jones
United States	6745391	Dec. 10, 1997	Macrae
United States	6747991	Apr. 26, 2000	Hemy
United States	6748481	Apr. 6, 1999	Parry
United States	6757255	Jul. 28, 1998	Aoki
United States	6757796	May. 15, 2000	Hofmann
United States	6757907	Feb. 9, 2000	Schumacher
United States	6760749	May 10, 2000	Dunlap
United States	6760765	Nov. 9, 1999	Asai
United States	6760772	Dec. 15, 2000	Zou

United States	6760916	Jan. 14, 2000	Holtz
United States	6765878	Mar. 28, 2000	Carlson
United States	6769127	Jun. 16, 2000	Bonomi
United States	6771652	Nov. 23, 1999	Aydemir
United States	6771703	Jun. 30, 2000	Oguz
United States	6772375	Dec. 22, 2000	Banga
United States	6785288	Jul. 25, 1996	Enns
United States	6788882	Apr. 17, 1998	Geer
United States	6789106	Feb. 2, 2001	Eyer
United States	6792449	Jun. 28, 2001	Colville
United States	6795863	Oct. 8, 1982	Doty, Jr.
United States	6801947	Aug. 1, 2000	Li
United States	6813690	Jun. 12, 2001	Lango
United States	6820233	Jul. 14, 2000	Johansson
United States	6822940	Sep. 29, 2000	Zavalkovsky
United States	6829781	May 24, 2000	Bhagavath
United States	6831949	Jul. 18, 1997	Brightwell
United States	6839865	Dec. 29, 2000	Gould
United States	6845107	Oct. 15, 1997	Kitazawa
United States	6850965	Nov. 17, 1998	Allen
United States	6859839	Aug. 6, 1999	Zahorjan
United States	6870573	Jan. 22, 1999	Fuller
United States	6874015	Dec. 16, 2002	Kaminsky
United States	6877010	Nov. 3, 1999	Smith-Semedo
United States	6877134	Aug. 14, 1997	Fuller
United States	6879634	May. 26, 1999	Strasman
United States	6880017	Mar. 20, 2000	Marce
United States	6880018	Dec. 11, 1998	Kajiki
United States	6880171	Dec. 5, 1996	Ahmad
United States	6882793	Jun. 16, 2000	Fu
United States	6885471	Mar. 25, 1999	Minowa
United States	6891694	Aug. 23, 2002	Hetzler
United States	6910079	Jan. 25, 2002	Zimmermann
United States	6918132	Jun. 14, 2001	Gargi
United States	6938208	Jan. 4, 2000	Reichardt
United States	6940904	May 29, 2001	Chen
United States	6956573	Nov. 15, 1996	Bergen
United States	6956869	Dec. 4, 1998	Kato
United States	6961954	Oct. 27, 1997	Maybury
United States	6963972	Sep. 26, 2000	Chang

United States	6965724	Mar. 30, 1995	Boccon-Gibod
United States	6968387	Jan. 10, 2003	Lanphear
United States	6976090	Apr. 20, 2000	Ben-Shaul
United States	6985932	Nov. 30, 1994	Glaser
United States	6986018	Jun. 26, 2001	O'Rourke
United States	6988235	Mar. 2, 2000	Brown
United States	6990512	Mar. 19, 2001	Major
United States	6992981	Jan. 11, 2001	Morikawa
United States	7003794	Jun. 27, 2000	Arye
United States	7020087	Jan. 13, 2003	Steinberg
United States	7024480	Nov. 9, 2000	Weik
United States	7031700	Nov. 14, 2001	Weaver
United States	7042898	Oct. 14, 1997	Blightman
United States	7043560	Jun. 19, 2001	Coulombe
United States	7046805	Mar. 20, 2001	Fitzhardinge
United States	7046910	Nov. 20, 1998	Chen
United States	7051110	Dec. 20, 1999	Hagai
United States	7054365	Dec. 28, 2000	Kim
United States	7054774	Jun. 27, 2003	Batterberry
United States	7054911	Jun. 12, 2001	Lango
United States	7054949	Jan. 19, 2001	Jennings
United States	7065250	Sep. 18, 1998	Lennon
United States	7073028	Jun. 12, 2001	Lango
United States	7073127	Jul. 1, 2002	Zhao
United States	7075986	Nov. 27, 1996	Girod
United States	7076560	Jun. 12, 2001	Lango
United States	7093001	Nov. 26, 2001	Yang
United States	7096271	Sep. 15, 1998	Omoigui
United States	7099954	Jun. 27, 2002	Li
United States	7107532	Aug. 29, 2001	Billmaier
United States	7111044	Jul. 17, 2002	Lee
United States	7116894	May 24, 2002	Chatterton
United States	7124164	Apr. 17, 2001	Chemtob
United States	7133451	Mar. 5, 2001	Kim
United States	7133881	Apr. 29, 2002	Sirivara
United States	7155531	Jun. 12, 2001	Lango
United States	7174385	Sep. 3, 2004	Li
United States	7174512	Dec. 1, 2000	Martin
United States	7176957	May 25, 2004	Ivashin
United States	7177642	Jul. 3, 2001	Sanchez Herrero

United States	7178107	Sep. 16, 1999	Sezan
United States	7185082	Aug. 9, 2000	Val
United States	7190670	Oct. 4, 2002	Varsa
United States	7194549	Sep. 6, 2000	Lee
United States	7200857	Jun. 9, 2000	Rodriguez
United States	7237254	Mar. 29, 2000	Omoigui
United States	7240100	Apr. 14, 2000	Wein
United States	7257407	Mar. 26, 2003	Dacosta
United States	7260640	Feb. 13, 2003	Kramer
United States	7274740	Jun. 25, 2003	van Beek
United States	7293280	Jul. 8, 1999	Gupta
United States	7295520	Oct. 31, 2001	Lee
United States	7301944	Oct. 24, 1997	Redmond
United States	7308487	Dec. 12, 2000	Dansie et al.
United States	7310678	Jul. 28, 2000	Gunaseelan
United States	7313236	Apr. 9, 2003	Amini
United States	7313808	Jul. 8, 1999	Gupta
United States	7324523	Mar. 26, 2003	Dacosta
United States	7325073	Jun. 28, 2002	Shao
United States	7325199	Oct. 4, 2000	Reid
United States	7328243	Oct. 31, 2002	Yeager
United States	7330908	Jun. 23, 2000	Jungck
United States	7334044	Nov. 17, 1998	Allen
United States	7349358	Oct. 6, 2003	Hennessey
United States	7349976	Nov. 30, 1994	Glaser
United States	7363228	Sep. 18, 2003	Wyss
United States	7369610	Dec. 1, 2003	Xu
United States	7376747	Dec. 20, 2000	Hartop
United States	7386627	Jan. 29, 2002	Lango
United States	7391717	Jun. 30, 2003	Klemets
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Publication Prior Art

Title	Date	Page Numbers
A New Adaptive Multimedia Streaming System for All-IP Multi-Service Network	March 1, 2004	*All pages*
Streaming Video over the Internet: Approaches and Directions	March 2001	*All pages*
Rate-distortion optimized receiver-driven streaming over best-effort networks	2001	*All pages*
Video coding for streaming media delivery on the internet	March 2001	*All pages*
Streaming Media Demystified	2002	*All pages*

System Prior Art

Name of System	Date	Exemplary Supporting Evidence
Level 3	Oct. 1, 2002	Level 3 CDN and technologies related to the SandpiperNetworks Footprint CDN (including RealNetworks Inc. RealSystem G2 integration). For example, the following documents provide disclosures regarding the Level 3 system: • Conklin • Sandpiper Adds RealSystem G2 to its Content Delivery Network August 4, 1999), RESP-PA02644-RESP-PA02645

		• Sandpiper Networks Signs Partner Deals (October 7, 1999), RESP-PA02623-RESP-PA02624 • Improving Quality May Help to Boost Streaming Media (December 19, 1999), RESP-PA02625-RESP-PA02631 • Introduction to Streaming Media with RealOne Player (October 1, 2002), RESP-PA00001-RESP-PA00154 • RealNetworks Production Guide with RealOne Player (2002), RESP-PA02834-RESP-PA03495 • RealSystem G2 Production Guide (1998), RESP-PA03502-RESP-PA03631 • Streaming Video from End to End (February 28, 1999), RESP-PA03632-RESP-PA03640 • RealNetworks Tests G2 (July 13, 1998), RESP-PA03461-RESP-PA03642.
Limelight	Jan. 13, 2002	Limelight CDN (including EdgePrism and Orchestrate Platform). For example, the following documents provide disclosures regarding the Limelight system: • Fresh Approach (January 13, 2002), RESP-PA02632-RESP-PA02640.
Akamai	June 13, 2005	Akamai CDN (including technologies related to the InterVu Inc. CDN and Speedera Networks Inc. CDN). For example, the following documents provide disclosures regarding the Akamai system: • Akamai Buys InterVu (February 7, 2000), RESP-PA02597-RESP-PA02599 • InterVu Streams Ahead Behind the Scenes (January 2, 2002), RESP-PA02600-RESP-PA02604 • InterVu Granted Key Internet Patent (December 16, 1999), RESP-PA02605-RESP-PA02606 • U.S. Patent No. 6,181,867 to Kenner, RESP-PA01300-RESP-PA01313 • U.S. Patent No. 6,112,239 to Kenner et al., RESP-PA01449-RESP-PA01465 • U.S. Patent No. 6,003,030 to Kenner et al., RESP-PA01676-RESP-PA01690 • U.S. Patent No. 6,625,643 to Colby et al., RESP-PA01720-RESP-PA01744 • U.S. Patent No. 6,154,744 to Kenner et al., RESP-PA01806-RESP-PA01819 • InterVu & Excalibur Partner to Deliver Live Internet Newscasts (December 9, 1999), RESP-PA02607-RESP-PA02608 • Sitaraman • A Transport Layer for Live Streaming in a Content Delivery Network, RESP-PA02554-RESP-PA02564 • U.S. Patent No. 6,665,726 to Leighton et al., RESP-PA02390-RESP-PA02399 • Akamai Completes Acquisition of Speedera Networks (June 13, 2005), RESP-PA02609-RESP-PA02610

		• Speedera Posts Another Record Fiscal Year (July 14, 2004), RESP-PA02648-RESP-PA02651.
IBM	Feb. 14, 2002	AIX Media Streamer & Video Charger and related streaming technologies. For example, the following documents provide disclosures regarding the IBM system: • Day 1 • Day 2 • Day 3 • U.S. Patent App. Pub. No. 2003/0152036 to Quigg Brown et al., RESP-PA01475-RESP-PA01486 • U.S. Patent App. Pub. No. 2003/0014684 to Kashyap, RESP-PA01560-RESP-PA01574 • IBM Goes Straight to Video (December 3, 1996), RESP-PA02567-RESP-PA02569 • IBM Digital Library Version 2 Expands Its Comprehensive Solution Framework (August 12, 1997), RESP-PA02570-RESP-PA02596 • IBM VideoCharger (December 18, 1996), RESP-PA02646-RESP-PA02647.
Apple	Sep. 20, 2003	QuickTime media format including QuickTime player, QuickTime Streaming Server, Darwin Streaming Server, and Fast Start streaming technology (including, e.g., QuickTime 4 through 6; QuickTime Streaming Server 5.0). For example, the following documents provide disclosures regarding the Apple system: • SMD • Mac OS X Server QuickTime Steaming Server 5.0 Administration (September 12, 2003), RESP-PA00700-RESP-PA00764 • Darwin Streaming Server (1999), RESP-PA02641-RESP-PA02643QuickTime 6: Summary of Changes and Enhancements (July 1, 2002).
Microsoft	May 2003	Windows Media technologies including Windows Media Tools, Windows Media Services, Windows Media Center Extension, Windows Media Player, and related Intelligent Streaming technologies. For example, the following documents provide disclosures regarding the Microsoft system: • Introduction to Streaming Media with RealOne Player (October 1, 2002), RESP-PA00001-RESP-PA00154 • SMD • Ravi • Chou ’031 • U.S. Patent No. 6,766,407 to Lisitsa et al., RESP-PA01745-RESP-PA01768 • U.S. Patent App. Pub. No. 2004/0221088 to Lisitsa et al., RESP-PA02025-RESP-PA0245

		• Intelligent Streaming (May 2003), RESP-PA02349-RESP-PA2353 • Bill Gates Unveils the Next Wave of Digital Media with Windows Microsoft (September 3, 2002), RESP-PA02616-RESP-PA02622 • Microsoft Announces Beta Release of Windows Media Technologies 4.0 (April 13, 1999), RESP-PA02611-RESP-PA02615 • Improving Quality May Help to Boost Streaming Media (December 19, 1999), RESP-PA02625-RESP-PA02631.
Adobe	Nov. 15, 2002	Adobe and/or Macromedia Flash Player, Flash Communication Server, Flash Media Server, and related streaming technologies. For example, the following documents provide disclosures regarding the Adobe system: • Macromedia Delivers Macromedia Flash Communication Server MX (July 9, 2002) • Macromedia Flash Media Server 2 Now Available (Nov. 15, 2002) • SMD,

Individuals with Knowledge of Use or Sale of System Prior Art

Name of System	Name	Address
Level 3	Level 3 Communications LLC	c/o The Registered Agent The Corporation Trust Company Corporation Trust Center 1209 Orange Street Wilmington, DE 19801
Limelight	Limelight Networks, Inc.	c/o CT Corporation System 2390 E Camelback Road Phoenix, AZ 85016
Akamai	Akamai Technologies, Inc.	c/o Corporation Service Company 84 State Street Boston, MA 02109
IBM	International Business Machines Corp.	c/o CT Corporation System 330 N. Brand Blvd Glendale, CA 91203
Apple	Apple, Inc.	c/o Julia Lee Choi 1 Apple Park Way Cupertino, California 95014
Microsoft	Microsoft Corporation	c/o Corporation Service Company 300 Deschutes Way SW, Suite 208 MC-CSC1 Tumwater, WA 98501

CERTIFICATE OF SERVICE

I, Russell O. Shapiro, certify that on September 10, 2021, a copy of the foregoing document was served, pursuant to Commission regulations, on the following interested parties in the manner so indicated:

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The Honorable David P. Shaw Administrative Law Judge U.S. International Trade Commission 500 E Street, S.W. Washington, D.C. 20436	Via Email: Shaw337@USITC.gov
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