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**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

QUANTUM STREAM INC.,

**ECF CASE**

Plaintiff,

Civil Action No. 1:17-cv-1696

v.

CHARTER COMMUNICATIONS, INC. and  
SPECTRUM MANAGEMENT HOLDING  
COMPANY, LLC (f/k/a TIME WARNER  
CABLE, INC.),

Defendants.

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**COMPLAINT**

Plaintiff, Quantum Stream Inc., for its complaint against Defendants Charter Communications, Inc. and Spectrum Management Holding Company, LLC (f/k/a Time Warner Cable, Inc.) hereby alleges as follows:

**THE PARTIES**

1. Plaintiff Quantum Stream Inc. (“Quantum Stream”) is a corporation organized and existing under the laws of the State of Delaware, having its principal place of business at 780 Third Avenue, 12th Floor, New York, New York 10017.

2. Upon information and belief, Defendant Charter Communications, Inc. is a Delaware corporation, having its principal place of business at 12405 Powerscourt Drive, St. Louis, MO 63131.

3. Upon information and belief, Defendant Spectrum Management Holding Company, LLC, formerly known as Time Warner Cable, Inc. (“Spectrum-TWC”) is a Delaware corporation, having places of business at 60 Columbus Circle, 17<sup>th</sup> Floor, New York, New York 10023, and 400 Atlantic Street, Stamford, Connecticut 06901 (Charter Communications, Inc. and Spectrum-TWC are collectively referred to herein as “Charter”).

4. Charter provides digital television entertainment services under the Spectrum, Charter Spectrum, and Time Warner Cable brand names to customers in New York and within this judicial district, as well as to customers in other states within the United States.

**JURISDICTION AND VENUE**

5. Subject matter jurisdiction is conferred upon this Court under 28 U.S.C. § 1338(a) because this is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.*

6. Venue is proper in this district pursuant to 28 U.S.C. §§ 1391(b), (c), (d), and 1400(b). Upon information and belief, Charter conducts business in this judicial district, and the claims alleged in this Complaint arise in this judicial district, have taken place in this judicial district, and continue to take place in this judicial district.

7. Personal jurisdiction over Charter exists because Charter (a) availed itself of the privileges of conducting business in New York State and in this judicial district, (b) regularly conducts and solicits business with New York State and in this judicial district, (c) has committed acts of patent infringement as alleged in the complaint in New York State and in this judicial district, (d) committed tortious acts outside of New York State, the consequences of

which Charter knew would be felt in New York State and in this judicial district, and (e) has minimum contacts with this forum through its sale, offer for sale, and use of systems to provide advertisements for inclusion in digital television and/or video on demand in this judicial district in violation of Quantum Stream's patent rights. Thus, Charter should have reasonably expected to be haled into New York courts.

8. The United States District Court for the Southern District of New York has personal jurisdiction over Charter by virtue of the above-referenced facts.

### **BACKGROUND**

#### **The Patents-In-Suit**

9. United States Patent No. 9,047,626 ("the '626 Patent"), entitled "Content Distribution System and Method," was duly and lawfully issued on June 2, 2015, based upon an application filed by inventor, Tayo Akadiri. A copy of the '626 Patent is attached as Exhibit A.

10. The owner of the '626 Patent, by assignment, is Quantum Stream, which has the exclusive right to sue and to recover damages for infringement of the '626 Patent.

11. United States Patent No. 9,117,228 ("the '228 Patent"), entitled "Content Distribution System and Method," was duly and lawfully issued on August 25, 2015, based upon an application filed by inventor, Tayo Akadiri. A copy of the '228 Patent is attached as Exhibit B.

12. The owner of the '228 Patent, by assignment, is Quantum Stream, which has the exclusive right to sue and to recover damages for infringement of the '228 Patent.

13. United States Patent No. 9,349,136 ("the '136 Patent"), entitled "Content Distribution System and Method," was duly and lawfully issued on May 24, 2016, based upon an application filed by inventor, Tayo Akadiri. A copy of the '136 Patent is attached as Exhibit C.

14. The owner of the '136 Patent, by assignment, is Quantum Stream, which has the exclusive right to sue and to recover damages for infringement of the '136 Patent.

**Charter's Infringing Systems**

15. Charter operates systems that provide customers with digital television entertainment services. These systems include servers and set-top boxes.

16. Charter offers a large selection of digital channels, which provide digital video content, including digital video programs.

17. Charter's set-top boxes used in connection with its digital entertainment services and systems include, but are not limited to the following HD and DVR Receivers: Arris DCX 3520e-M; Motorola DCH 3200; Motorola DCH 3416; Motorola DCH 6200; Motorola DCH 6416HD; Motorola DCT 3416HD; Motorola DCT 5100HD; Motorola DCT 6200HD; Motorola DCX 3200HD; Motorola DCX 3200eHD; Motorola DCX 3200 phase 2 HD; Motorola DCX 3220; Motorola DCX 3400/3425HD; Motorola DCX 3501-MHD; Motorola DCX 3510; Motorola DCX 6412HD; Cisco DTA 170; Cisco EXP 1840; Cisco EXP 4250; Cisco EXP 8300; Cisco 4640/4650; Cisco 8640/8650; MOXI BMC 9012, MOXI BMC 9022, MOXI 3012, MOXI 3012R, MOXI 9012/9022; MOXI Mate; Scientific Atlanta Explorer 3200/3250HD; and Scientific Atlanta Explorer 8300HD. <http://www.charter.net/support/tv/digital-receiver-cable-box/>.

18. Charter sells and/or offers to sell addressable advertising services to advertisers.

19. Charter provides addressable advertising used to target advertising to its customers.

20. Charter's addressable advertising used to target advertising to its customers is described in "Time Warner Cable Media Expands Ads Everywhere Capabilities to Deliver

Campaigns Targeted Directly to Household Levels,” Business Wire Press Release, March 9, 2016, which provides in part:

Time Warner Cable Media (TWCM), the advertising sales arm of Time Warner Cable (TWC), today announced the expansion of its Ads Everywhere capabilities to now deliver addressable campaigns directly to household levels for advertisers in both live television and on demand viewing environments across 10.8MM digital video households. . . . TWCM Ads Everywhere enables marketers to target consumers with specialized ads using insights and demographic data such as household income, lifestyle, and purchasing preferences. TWCM introduced Ads Everywhere in 2014, becoming the first cable provider to offer an ad solution for marketers to connect with consumers across 50+ premier cable networks through app-based viewing on iOS, desktop, Roku, Android and other devices. Ads Everywhere also extended into TWCM’s VOD programming using dynamic ad-insertion technology.

<http://www.businesswire.com/news/home/20160309005788/en/Time-Warner-Cable-Media-Expands-Ads-Capabilities>.

21. Charter’s addressable advertising used to target advertising to its customers is also described in “TWC to deliver household-level addressable ad campaigns,” FierceCable, March 9, 2016, which provides in part:

Time Warner Cable . . . has expanded the capabilities of its Ads Everywhere platform, allowing advertising clients to target ads at the household level. TWC Media, the media sales arm of the MSO, first launched Ads Everywhere in 2014, enabling advertisers to reach viewers on both multiscreen and VOD platforms. . . . Marketers can now dynamically insert targeted ads within TWC's Ads Everywhere platform, which includes 10.8 million homes. These ads can be inserted into live TV on the TWC TV app across multiple devices, as well as during presentations of VOD programs.

<http://www.fiercecable.com/cable/twc-to-deliver-household-level-addressable-ad-campaigns>.

22. Charter’s addressable advertising used to target advertising to its customers is also described in “Time Warner Cable Moves Into Addressable TV Advertising,” March 9, 2016, which provides in part: “Time Warner Cable is moving into addressable TV advertising,

allowing marketers to target down to a household level through its app and video-on-demand. Marketers will be able to dynamically insert ads during live TV on the TWC app across multiple devices and in video-on-demand . . . .” <http://adage.com/article/media/time-warner-cables-moves-addressable-tv-advertising/303015/>.

23. Charter’s addressable advertising used to target advertising to its customers is also described in “TWC Media Launches Household-Based Ad Targeting” March 9, 2016, which provides in part: “Time Warner Cable Media, the ad sales arm of Time Warner Cable, said its Ads Everywhere platform now offers addressable campaigns for linear TV and VOD that can be targeted to the household level.” <http://www.multichannel.com/news/advanced-advertising/twc-media-launches-household-based-ad-targeting/403200>.

24. Charter’s addressable advertising used to target advertising to its customers is also described in “TWC Media Makes Linear Ads Addressable” March 11, 2016, which provides in part:

Time Warner Cable Media (TWCM), the advertising sales arm of Time Warner Cable (TWC), today announced the expansion of its Ads Everywhere capabilities to now deliver addressable campaigns directly to household levels for advertisers in both live television and on demand viewing environments across 10.8MM digital video households. With this newly expanded addressable capability, marketers can dynamically insert targeted ads in more homes within TWCM’s Ads Everywhere platform during live television on the TWC TV app across multiple devices and in premier video on demand (VOD) programming.

<http://www.lightreading.com/mobile/video/advertising-services/twc-media-makes-linear-ads-addressable/d/d-id/721837>.

25. Charter’s addressable advertising used to target advertising to its customers is also described in “Time Warner Cable Media Pushes Back After YouTube's Bold Claim About Audience Reach,” May 6, 2016, which provides in part: “The company discussed enhancements

made to its Kernel data too. . . . Kernel can help deliver addressable campaigns directly into households, via dynamic ad insertion.” <http://www.adweek.com/news/television/time-warner-cable-media-pushes-back-after-youtubes-bold-claim-about-audience-reach-171330>.

26. Charter’s addressable advertising used to target advertising to its customers is also described in “Upfront and Personal: Time Warner Cable Media: TV impressions still matter,” May 10, 2016, which provides in part: “The presentation also touched on addressability and the company's "Ads Everywhere" capabilities, which since its February debut has been able to deliver addressable campaigns directly to the household level for advertisers in both live television, on the TWC TV App, and on-demand viewing environments across the MSO's 10.8 million digital video household footprint.” [https://www2.sn1.com/Cache/sn1pdf\\_b638daa7-0fd9-4516-bba7-c9b0ed2f0fbc.pdf](https://www2.sn1.com/Cache/sn1pdf_b638daa7-0fd9-4516-bba7-c9b0ed2f0fbc.pdf).

27. Charter’s addressable advertising used to target advertising to its customers is also described in “How Addressable TV Has Evolved, And Where It Will Go In 2017, January 3, 2017, which provides in part: “Time Warner Cable, for instance, rolled out addressable targeting in 11 million households.” <https://adexchanger.com/digital-tv/addressable-tv-evolved-will-go-2017/>.

28. Charter’s addressable advertising is also mentioned in Spectrum Reach’s LinkedIn company page, as of January 27, 2017, which provides in part: “Products & Services Include: . . . Addressable TV Advertising . . . Spectrum Reach is the advertising sales division of Charter Communications, Inc.” <https://www.linkedin.com/company/spectrum-reach>.

29. Charter’s targeted advertising is also mentioned its Residential Subscriber Privacy Policy, as of January 27, 2017, which provides in part: “Charter may also use that information to distribute targeted advertising to You without having disclosed any of Your personally

identifiable information to the advertisers.” <https://buy.charter.com/browse/content/residentprivacy>.

30. Charter’s targeted advertising is described in “BlackArrow Launches Advertising and Data Solutions for On-demand Content Viewed on Internet Connected Devices,” Businesswire, February 10, 2015, which provides in part:

BlackArrow . . . today announced that it has deployed dynamic ad insertion (DAI) capabilities for on-demand content that is delivered to internet connected devices such as tablets, smartphones and laptops. Time Warner Cable . . . which has already deployed BlackArrow’s solutions for their linear over IP and traditional VOD platforms, is the first customer to deploy BlackArrow’s solution for internet delivered on-demand content into the market. . . . Time Warner Cable has invested heavily in bringing multiscreen and time-shifted viewing options like Video On Demand and our TWC TV app to our customers,’ said Joan Gillman, Executive Vice President and COO, Time Warner Cable Media. ‘It is an added benefit that we have been able to work with BlackArrow and other partners to also help us bring highly targeted and dynamic advertising solutions to these platforms for our programming and advertising partners.’ <http://www.businesswire.com/news/home/20150210005295/en/BlackArrow-Launches-Advertising-Data-Solutions-On-demand-Content>.

31. Charter’s targeted advertising is also described in “TWC Taps BlackArrow for Multiscreen Ads” LightReading, February 11, 2015, which provides in part:

In another sign that TV Everywhere is starting to hit its stride, Time Warner Cable is rolling out a new system that enables it to insert ads dynamically into programming streamed to a wide range of screens beyond conventional TV sets. The advanced dynamic ad insertion (DAI) system, developed by BlackArrow Inc., enables Time Warner Cable Inc. (NYSE: TWC) to place ads in on-demand content that runs on any IP-enabled device. That means that the number two US MSO will now be able to insert ads into VoD programming running on connected TVs, tablets, laptops, game consoles, streaming media players, smartphones and other IP video devices. As a result, TWC will be able to start monetizing multiscreen video by selling VoD spots to advertisers much more effectively.



<http://www.lightreading.com/video/multi-screen-video/twc-taps-blackarrow-for-multiscreen-ads/d/d-id/713674>.

32. Charter's targeted advertising is also described in "Cadent Technology (BlackArrow) unveils its solution for linear STB addressable advertising," Videonet, March 10, 2016, which provides in part: "The addressable advertising solution for linear broadcast is designed for two-way networks, harnessing an IP return path to pre-position ad files into a DVR, then make ad calls to the campaign manager and receive decisions on which ads to show. These advertisements are then spliced into linear channels in order to replace the ads that already exist in the linear TV feeds." <http://v-net.tv/2016/03/10/cadent-technology-blackarrow-unveils-its-solution-for-linear-stb-addressable-advertising/>.

### **FIRST CLAIM FOR RELIEF**

#### **Patent Infringement Of United States Patent No. 9,047,626**

33. Plaintiff repeats and realleges the preceding allegations as if restated in full herein.

34. Upon information and belief, Charter has been and is directly infringing, either literally or under the doctrine of equivalents, the '626 Patent by making, using, offering to sell, and/or selling content distribution systems that include consumer device(s) and server interface(s), which provide video content and addressable advertising that meet all of the limitations of at least claim 1 of the '626 Patent in violation of 35 U.S.C. § 271(a), in this district and elsewhere within the United States, without authority.

35. For example, Charter makes, uses, offers to sell, and/or sells a system for providing secondary content (*e.g.*, advertisements) for inclusion in video content (*e.g.*, TV and movie programs) that meets each and every element of claim 1. The system comprises a consumer device (*e.g.*, set-top box), which has at least one network connector (*e.g.*, coaxial cable

or Ethernet connector) for receiving secondary content selected based on targeted criteria (*e.g.*, consumer profiles and/or demographic information) and for receiving: (a) video content having at least one vacancy (*e.g.*, at least one designated special or temporal region or period during which advertisements are inserted), and (b) information (*e.g.*, data such as one or more attributes) related to the video content (*e.g.*, type of video program and/or time duration/location of the vacancy). The consumer device includes at least one storage device (*e.g.*, one or more internal memories) for storing the secondary content and information (*e.g.*, data such as one or more attributes) related to the secondary content (*e.g.*, the type of advertisement, the duration of the advertisement, and/or information related to the advertisement or intended audience). The consumer device also includes at least one processor for inserting secondary content into the at least one vacancy of the video content, wherein the insertion is based on matching attributes associated with the vacancy (*e.g.*, type of program, and/or time duration/location of the vacancy) and attributes of the information related to the secondary content (*e.g.*, the type of advertisement, the duration of the advertisement, and/or information related to the advertisement or intended audience). The system also includes at least one server interface (*e.g.*, Ethernet, coaxial, or fiber optic interface) for transferring the video and secondary content to the consumer device. The consumer devices output the secondary content within the at least on vacancy of the video content.

36. Quantum Stream has been damaged by the infringement of the '626 Patent by Charter and is suffering, and will continue to suffer, irreparable harm and damage as a result of this infringement unless such infringement is enjoined by this Court.

**SECOND CLAIM FOR RELIEF**

**Patent Infringement Of United States Patent No. 9,117,228**

37. Plaintiff repeats and realleges the preceding allegations as if restated in full herein.

38. Upon information and belief, Charter has been and is directly infringing, either literally or under the doctrine of equivalents, the '228 Patent by making, using, offering to sell, and/or selling content distribution systems for targeting digital video advertisements to consumers that include server(s) and consumer device(s), which provide video content and addressable advertising that meet all of the limitations of at least claim 1 of the '228 Patent in violation of 35 U.S.C. § 271(a), in this district and elsewhere within the United States, without authority.

39. For example, Charter makes, uses, offers to sell, and/or sells a system for targeting digital video advertisements to consumers that meets each and every element of claim 1. The system comprises multiple servers (*e.g.*, at least one server such as digital video content distribution server(s)) and each server comprises at least one network connector (*e.g.*, Ethernet, coaxial or fiber optic connector). A server (*e.g.*, digital video content distribution servers) is connected to at least one consumer device (*e.g.*, set-top box) over a network (*e.g.*, back-end and/or satellite network). A server is configured to transmit a digital video program (*e.g.*, TV and movie programs) to the at least one consumer device through the first network connector and over the network. At least one vacancy (*e.g.*, at least one designated spatial or temporal region or period during which advertisements are inserted) is associated with the digital video program. The system also includes a server comprising at least one storage device (*e.g.*, internal memory) for storing a plurality of digital video advertisements wherein at least one digital video advertisement has at least one attribute (*e.g.*, type of advertisement, the duration of the advertisement, and/or other information related to the advertisement or intended audience).

The system has a server comprising at least one processor configured to select at least one digital video advertisement from the plurality of digital video advertisements. The selection is based on comparing targeted criteria (*e.g.*, consumer profiles and/or demographic information) to the at least one attribute of the at least one digital video advertisements. The server in the system which stores advertisements includes at least one second network connector (*e.g.*, Ethernet, coaxial or fiber optic connector) and is connected to the consumer devices over the network (*e.g.*, backend and/or satellite network), and is configured to transmit the selected advertisements to the consumer devices through the second network connector over the network. The system further includes at least one consumer device which includes a third network connector (*e.g.*, coaxial or Ethernet connector). The at least one consumer device is configured to receive the digital video program and the selected advertisement through the third network connector and over the network. The at least one consumer device includes at least one processor configured to insert the selected advertisement into the at least one vacancy as the consumer is viewing the digital video program.

40. Quantum Stream has been damaged by the infringement of the '228 Patent by Charter and is suffering, and will continue to suffer, irreparable harm and damage as a result of this infringement unless such infringement is enjoined by this Court.

### **THIRD CLAIM FOR RELIEF**

#### **Patent Infringement Of United States Patent No. 9,349,136**

41. Plaintiff repeats and realleges the preceding allegations as if restated in full herein.

42. Upon information and belief, Charter has been and is directly infringing, either literally or under the doctrine of equivalents, the '136 Patent by making, using, offering to sell, and/or selling content distribution systems for targeting digital video advertisements to

consumers that include server(s) and consumer device(s), which provide video content and addressable advertising that meet all of the limitations of at least claim 1 of the '136 Patent in violation of 35 U.S.C. § 271(a), in this district and elsewhere within the United States, without authority.

43. For example, Charter makes, uses, offers to sell, and/or sells a system for targeting digital video advertisements to consumers that meets each and every element of claim 1. The system comprises at least one first server (*e.g.*, digital video content distribution server) comprising a first network connector (*e.g.*, Ethernet, coaxial, or fiber optic connector), wherein the at least one first server is connected to at least one consumer device (*e.g.*, set-top box) over a network (*e.g.*, back-end and/or satellite network) and is configured to transmit a digital video program (*e.g.*, TV and movie programs), having at least one vacancy (*e.g.*, at least one designated spatial or temporal region or period during which advertisements are inserted), to the at least one consumer device through the first network connector and over the network. The system also comprises at least one consumer device comprising at least one second network connector (*e.g.*, Ethernet or coaxial connector), wherein the at least one consumer device is configured to receive, through the at least one second network connector, the digital video program from the at least one first server and the digital video advertisements from at least one second server (*e.g.*, digital video advertising content distribution server). At least one of the digital video advertisements is selected for transmission to the at least one consumer device based on comparing targeted criteria (*e.g.*, consumer profiles and/or demographic information) to at least one attribute of the at least one of the digital video advertisements (*e.g.*, type of advertisement, the duration of the advertisement, and/or other information related to the advertisement or intended audience). The at least one of the consumer devices also comprises at

least one processor configured to insert the selected at least one of the digital video advertisements into the at least one vacancy of the digital video program.

44. Quantum Stream has been damaged by the infringement of the '136 Patent by Charter and is suffering, and will continue to suffer, irreparable harm and damage as a result of this infringement unless such infringement is enjoined by this Court.

**PRAYER FOR RELIEF**

WHEREFORE, Quantum Stream demands judgment as follows:

- A. finding that Charter infringes one or more claims of the '626 Patent;
- B. finding that Charter infringes one or more claims of the '228 Patent;
- C. finding that Charter infringes one or more claims of the '136 Patent;
- D. permanent injunction enjoining Charter, its officers, agents, servants, employees, and attorneys, and all persons acting in concert or participation with any of them from infringing the '626, '228, and '136 Patents;
- E. an award of damages under 35 U.S.C. § 284 (or as otherwise permitted by law) adequate to compensate Quantum Stream for the infringement by Charter along with prejudgment and postjudgment interest;
- F. an award of Quantum Stream's costs and attorney fees and expenses pursuant to 35 U.S.C. § 285 or as otherwise permitted by law; and
- G. an award of such other costs and further relief that this Court determines to be just and equitable.

Respectfully submitted,

LERNER, DAVID, LITTENBERG,  
KRUMHOLZ & MENTLIK, LLP  
*Attorneys for Plaintiff Quantum Stream Inc.*

Dated: March 7, 2017

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**DEMAND FOR TRIAL BY JURY**

Pursuant to Fed. R. Civ. P. 38(b), Quantum Stream hereby demands a jury trial on all issues so triable.

Respectfully submitted,  
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*Attorneys for Plaintiff Quantum Stream Inc.*

Dated: March 7, 2017

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**CERTIFICATION PURSUANT TO LOCAL CIVIL RULE 1.6(a)**

The undersigned hereby certifies, pursuant to Local Civil Rule 1.6(a), that with respect to the matter in controversy herein, neither Plaintiff Quantum Stream Inc. nor its attorneys are aware of any other action pending in any court, or of any pending arbitration or administrative proceeding, to which this matter is subject.

Respectfully submitted,  
LERNER, DAVID, LITTENBERG,  
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*Attorneys for Plaintiff Quantum Stream Inc.*

Dated: March 7, 2017

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