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17 CENTRE ONE

18
19 **UNITED STATES DISTRICT COURT**
20 **CENTRAL DISTRICT OF CALIFORNIA**
21 **SOUTHERN DIVISION**

22 CENTRE ONE,
23 Plaintiff,
24 vs.
25 COX COMMUNICATIONS, INC.,
26 Defendant.

Case No. 8:19-cv-1832

**COMPLAINT FOR PATENT
INFRINGEMENT**

JURY TRIAL DEMANDED

1 Plaintiff CENTRE ONE files this Original Complaint against Defendant COX
2 COMMUNICATIONS, INC., alleging as follows:

3 **I. THE PARTIES**

4 1. CENTRE ONE (“Plaintiff” or “Centre One”) is a corporation organized
5 and existing under the laws of the State of Nevada, with a principal place of business
6 at 17 Pappagallo Point, Aliso Viejo, California 92656.

7 2. Defendant COX COMMUNICATIONS, INC. (“Cox”) is a corporation
8 organized under the laws of Delaware with a principal place of business at 6205
9 Peachtree Dunwoody Road, Atlanta, Georgia 30328. COX COMMUNICATIONS,
10 INC. may be served with process by serving Corporation Service Company at 251
11 Little Falls Drive, Wilmington, Delaware 19808.

12 **II. JURISDICTION AND VENUE**

13 3. This is an action for infringement of several United States patents.
14 Federal question jurisdiction is conferred to this Court over such action under 28
15 U.S.C. §§ 1331 and 1338(a).

16 4. Cox is among the largest telecommunications companies in the United
17 States, offering cable television, internet, and telephone service. Cox operates and
18 maintains a nationwide voice and data network through which it sells, leases, and
19 offers for sale or lease products and services to businesses, consumers, and
20 government agencies, including the Accused Products as described herein, within the
21 Central District of California. Cox maintains several regular and established places of
22 business within the Central District of California including at 6234 Irvine Boulevard,
23 Irvine, California 92620 and 6771 Quail Hill Parkway, Irvine, California 92603.
24 Defendant offers for sale and sells its residential telephony products and services,
25 including the Accused Products as described herein, from this location. Additionally,
26 Defendant maintains a regular and established place of business within the Central
27 District of California at 27121 Towne Centre Drive, Foothill Ranch, California 92610.
28 Defendant offers for sale and sells its business telephony products and services,

1 including the Accused Products as described herein, from this location.

2 5. Cox has sufficient minimum contacts with the Central District of
3 California such that this venue is fair and reasonable. Defendant has offered for sale
4 and sold telephony products and services within Orange County, California since
5 1997 and continues to do so today. Defendant has committed such purposeful acts
6 and/or transactions in this District that it reasonably should know and expect that they
7 could be hailed into this Court as a consequence of such activity. Defendant has
8 transacted and, at the time of the filing of this Complaint, continues to transact
9 business within the Central District of California.

10 6. For these reasons, personal jurisdiction exists and venue is proper in this
11 Court under 28 U.S.C. §§ 1391(b) and (c) and 28 U.S.C. § 1400(b), respectively.

12 **III. BACKGROUND AND FACTS**

13 7. Centre One is the owner of all rights and title in and to U.S. Patent No.
14 9,774,745 (“the ‘745 Patent”), U.S. Patent No. 8,724,643 (“the ‘643 Patent”), U.S.
15 Patent No. 8,125,982 (“the ‘982 Patent”), U.S. Patent No. 7,486,667 (“the ‘667
16 Patent”), and U.S. Patent No. 7,068,668 (“the ‘668 Patent”). These patents are
17 sometimes referred to collectively hereinafter as “the Asserted Patents.” Each of the
18 Asserted Patents claims priority through the patent application issuing as the ‘668
19 Patent, filed on January 7, 2000.

20 8. All rights in and title to the patent applications subsequently issuing as
21 the Asserted Patents, including the rights of enforcement and to seek past damages,
22 have been assigned to Centre One.

23 9. The respective inventions disclosed and claimed in the Asserted Patents
24 were developed by Mr. Donald S. Feuer, an early pioneer in the development of VoIP
25 telephony.

26 10. Mr. Feuer began working in telecommunications in the early 1990s,
27 founding and managing several companies in the telecom space, including Newport
28 Telecom, which was a cellular rental company for hotels, rental cars, and individuals.

1 11. In or around 1995, Mr. Feuer developed and implemented a system for
2 Budget Rent a Car to track their fleet of vehicles via cellular signals, which was
3 controlled by commands initiated by a computer. Mr. Feuer developed interfaces for
4 vehicles for unlocking doors, alarming systems within vehicles, providing the ability
5 to “kill” or stop the vehicle, and mapping out “no go” zones in which the vehicle
6 would provide a notification when traveling into a “no go” zone.

7 12. In 1997, Mr. Feuer founded CentreCom Inc. (“CentreCom”) to offer
8 circuit switched-based one number “follow-me” services causing calls to be
9 simultaneously routed to several phones. Mr. Feuer sought to incorporate this “follow
10 me” functionality within a unified messaging service accommodating the forwarding
11 voice messages as text to email addresses and vice versa. Mr. Feuer’s work on these
12 systems led to his work in VoIP technology and development of systems and methods
13 for interfacing telephone, facsimile, email, and voicemail systems to accommodate
14 real time call control over the Internet. Mr. Feuer invested considerable time and
15 resources toward this pursuit over the following several years. Initially, Mr. Feuer
16 focused on a system that would interface a telephone call with the internet, and then
17 would send a notification to an interface connected to system when a call was
18 received.

19 13. In early 1998, Mr. Feuer began working with engineers at Microsoft
20 Corp. to refine aspects of the alpha version of its NetMeeting client that was intended
21 to provide video through a computer-to-computer connection and with Cisco Systems
22 and Ethereal exploring signal conversions necessary to modify and integrate Cisco
23 gateway and gatekeeper components with a switch to make and receive a call between
24 a computer and a telephone on the Public Switched Telephone Network (“PSTN”),
25 which were then incompatible communications systems.

26 14. By late 1998, Mr. Feuer had designed and developed a system of
27 hardware and software capable of making and receiving phone calls using Internet
28 Protocol (“IP”) communications, making connections between a telephone on the

1 PSTN and his computer on an IP network. Mr. Feuer continued to further refine this
2 system to improve its reliability, call quality, and services until it approached that of a
3 standard telephone call made over the PSTN.

4 15. Mr. Feuer began demonstrating his inventions to Cisco, Microsoft, Sun
5 Microsystems, Verizon, and others beginning in late January 1999 and throughout the
6 year. This led to Cisco investing in funding and financing for equipment and services
7 for CentreCom to provide VoIP service, and CentreCom raised an additional round of
8 funding and investments from other companies and individuals.

9 16. CentreCom was marketed as a Virtual Local Exchange Carrier to provide
10 its Centre One phone-to-PC, PC-to-phone, and phone-to-phone telecommunications
11 service through the Internet, and enhanced calling services for VoIP service including
12 voice messaging, call screening, conference calling, unified messaging (faxes and
13 emails as voicemails), and one number follow-me. In the fall of 1999, Microsoft
14 showcased CentreCom at its booth at Comdex, a major industry gathering. This led to
15 an article in Business Wire titled Microsoft Showcases Innovative
16 Telecommunications Solutions from CentreCom in Comdex Booth. The article called
17 CentreCom “one of the most innovative voice-over-Internet Protocol (VoIP) and
18 switched global telecommunications service providers.”

19 17. Nonetheless, CentreCom was unable to survive the dotcom and telecom
20 crashes of the early 2000s and a life-threatening illness developed by Mr. Feuer,
21 eventually ceasing operations in 2002. Mr. Feuer recovered from the illness and
22 continues to work in the telecom industry to this day.

23 18. The patent applications that issued as the Asserted Patents were
24 originally held in the name of Mr. Feuer and were assigned to Centre One in 2006.

25 19. In 2009, Centre One filed a lawsuit asserting patent infringement of the
26 ‘667 and ‘668 Patents against Vonage Holding Corp., Vonage America Inc., Verizon
27 Communications Inc., and DeltaThree Inc. in Case No. 6:08-cv-00467-LED filed in
28 the Eastern District of Texas. The ‘667 and ‘668 Patents were placed in reexamination

1 during pendency of the lawsuit and were later confirmed as patentable after resolution
2 of the lawsuit.

3 **IV. THE ASSERTED PATENTS AND TECHNOLOGY**

4 20. The Asserted Patents are directed to VoIP technology, and systems and
5 methods for providing real-time voice communication between devices connected to
6 an IP network and devices connected to a PSTN, and providing advanced services and
7 features.

8 21. VoIP refers to a collection of technologies that digitize analog voice and
9 transmit it over digital data channels using Internet Protocol (IP). VoIP involves,
10 generally, conversion of analog voice to digital data which is then packetized as IP
11 packets in accordance with certain standards, or protocols, for transmission over a
12 packet-switched network. This transmission mode differs greatly from the circuit-
13 switched transmission mode for voice signals on the PSTN.

14 22. Application layer protocols implicated by VoIP include Session Initiation
15 Protocol (SIP), Session Description Protocol (“SDP”), Media Gateway Control
16 Protocol (“MGCP”), H.323, and others. These protocols define how connections are
17 made between endpoints to initiate and route calls, the format and content of
18 packetized data to be transmitted, and operation of media gateways for interfacing IP
19 networks with the PSTN. These standards are created by standards organizations,
20 such as the Internet Engineering Task Force (“IETF”), and are adhered to by all
21 telecom providers to ensure the ability to communicate among and between devices
22 regardless of service provider. Defendant’s telecom infrastructure and related
23 hardware and software components providing for the Accused Products defined
24 below, for example, are configured to ascribe to the standards of each of these
25 protocols, and others.

26 23. At the time Mr. Feuer was developing the invention of the Asserted
27 Patents, various local PSTN networks were connected to allow for communication of
28 voice signals from one device connected to a PSTN to any other device connected to a

1 PSTN; and computers with access to an IP network and voice packetization software
2 could packetize voice data and transmit the data to another computer over the IP
3 network. However, the voice networks of the PSTN were unable to be successfully
4 integrated with the data networks of an IP network to allow for real-time voice
5 communication between devices connected to the PSTN and devices connected to an
6 IP network. The inventions embodied in the claims of the Asserted Patents provide for
7 hardware or software component embodiments that include some or all of: a voice
8 response unit that can packetize PSTN voice signals or depacketize IP voice data; a
9 gateway which can interface the voice signals and data for transmission over an IP
10 network or a PSTN; and, a gatekeeper which performs address translation, admission
11 control, bandwidth management, and zone management functions for call control and
12 quality.

13 **IV. THE ACCUSED PRODUCTS**

14 24. Cox makes, uses, sells, and/or offers for sale VoIP products and services
15 which directly infringe one or more claims of the Asserted Patents. More specifically,
16 Cox makes, uses, sells, and/or offers for sale residential Voice Premier home phone
17 products and services, both as a standalone service plan and bundled with other
18 services, and Cox Long Distance service. Bundled plans include: Cox Bronze Bundle
19 with Voice Premier; Cox Silver Bundle with Voice Premier; Cox Silver Bundle with
20 Gigablast; Cox Silver Bundle with Gigablast and Voice Premier; Cox Gold Bundle
21 with Voice Premier; Cox Platinum Bundle with Voice Premier; Cox TV Starter,
22 Internet Starter 10 and Voice Premier; Cox TV Starter, Internet Essential 30 and
23 Voice Premier; Cox TV Starter, Internet Preferred 150 and Voice Premier; and,
24 Contour TV and Internet Essential 30 and Voice Premier. These residential products
25 are referred to collectively, herein, as “the Accused Residential Products.”

26 25. In addition, Cox makes, uses, sells, and/or offers for sale business phone
27 services including: Business VoiceManager Essential; Business VoiceManager
28 Enhanced; Business VoiceManager Unlimited; IP Centrex hosted voice, and, SIP and

1 PRI Trunking. These business telephony products and services are sometimes
2 referred to collectively as “the Accused Business Products.”

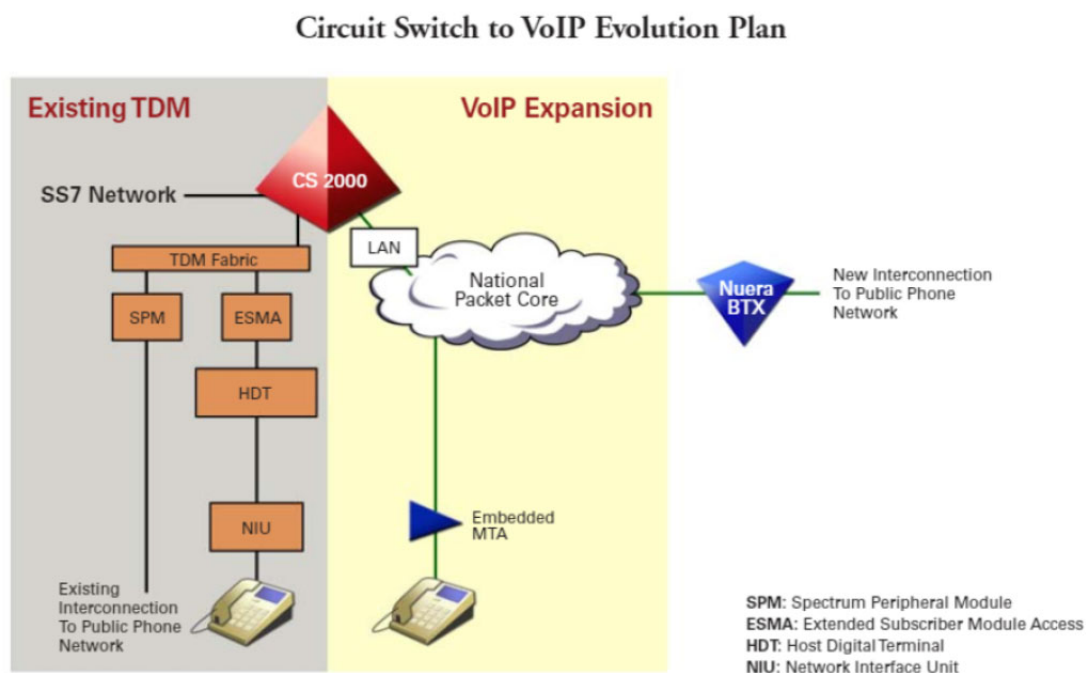
3 26. The Accused Residential Products and the Accused Business Products
4 are provided over Cox’s network and infrastructure. Cox’s network and infrastructure
5 was initially built as a purely circuit-switched architecture but was later modified to
6 accommodate packet-switched VoIP telephony in the mid-2000s. The resulting
7 network and infrastructure remains compatible with legacy telephony equipment and
8 supports interoperability between PSTNs and IP networks.

9 27. Cox began building installing telecom equipment in the mid-1990s and
10 began offering telephony services in Orange County, California and elsewhere via
11 circuit-switched operation in 1997. This first service offering expanded into
12 seventeen distinct markets spread across the United States and to over a million
13 residential customers over the next seven years. Cox then began incorporating
14 additional equipment within its networks to first accommodate long distance transport
15 of telecom traffic over Cox’s IP backbone among these markets, and then to
16 accommodate offering VoIP telephony services in both new and existing markets.
17 Cox described its “VoIP Evolution Plan” strategy as “leverage[ing] its installed base
18 of circuit switches and migrat[ing] the growth in legacy telephone markets to a
19 complementary VoIP overlay.”¹

20 28. At this time, Cox’s network infrastructure comprised two dozen circuit
21 switches providing primary line residential and commercial telephony service to
22 several markets, softswitches providing telephony service via VoIP technology to
23 several additional markets, and “[a] VoIP long distance solution riding over Cox’s
24 national IP backbone connect[ing] all the circuit switch and VoIP markets together.”
25 Cox planned to meet new line growth by evolving its existing Class 5 circuit switches
26

27 ¹ *White Paper: Circuit Switch to VoIP Evolution Plan*, dated March 2005, authored by
28 Cox Communications at p. 2. This paper is attached as Exhibit G hereto and
incorporated for all purposes.

1 to “simultaneously provide both Time Division Multiplexed (TDM) and VoIP
 2 support.” Cox replaced Digital Multiplex Systems to Nortel Communication Server
 3 2000 (CS2K) switches integrated with Nuera Communications BTX media gateways
 4 to create an infrastructure comprising “hybrid TDM/VoIP switches,” as shown in the
 5 following graphic:



17
 18 29. In this architecture, the CS2K is communicatively connected to both
 19 Cox’s National Packet Core (i.e., its IP backbone network) and to PSTN(s) via the
 20 SS7 Network connection, Existing TDM circuit-switched components, and through
 21 media gateways including the Nuera BTX shown. The CS2K is a switch operable to
 22 receive and route calls to and from devices connected to either of the IP network or
 23 the PSTN communicatively coupled to the Nuera BTX on Cox’s network.

24 30. As shown above, embedded Multimedia Terminal Adapters (“MTAs”)
 25 are interposed between subscriber phones and the remainder of the VoIP architecture.
 26 MTAs are embedded within modems provided to Cox subscribers by Cox. The MTA
 27 is a gateway device that performs all necessary signal conversion of voice signals for
 28 IP transmission using a Digital Signal Processor (“DSP”).

1 31. The Nuera BTX products are media gateway devices that interface
2 between PSTN and IP networks. In the graphic above, a Nuera BTX is used to
3 connect Cox's National Packet Core (i.e., its IP backbone network) to the "Public
4 Phone Network," for example. Use of the Nuera BTX within Cox's network enables
5 Cox's subscribers to make calls to and receive calls from PSTN subscribers.

6 32. Nuera describes its BTX products as "high-density VoIP media gateways
7 that provide interworking between a PacketCable managed IP network and the public
8 switch telephone network (PSTN)."² Further, they "enable cable telephony subscribers
9 to communicate with landline and mobile telephone subscribers throughout the world"
10 and "use[] advanced signal processing techniques to characterize and format signal
11 sources into data packets, making it an excellent solution for merging digital
12 broadband access networks with the legacy telephone network." Nuera's BTX
13 gateways comply with ITU H.248 and the PacketCable signaling protocol (TGCP)
14 and codec to allow for SS7 network call control. Nuera's BTX media gateways are
15 configured for deployment with one or more switches to support quality of service
16 over Hybrid Fiber Coax networks meeting the PacketCable Dynamic Quality of
17 Service (DQoS) specification requirements. Nuera's BTX gateways comprise voice
18 ports for tone generation and detection. They are compatible with and implement
19 vocoders including G.711, G.726, G.729a and G.723.1. These components and
20 functionality accommodate voice processing to automatically detect fax and modem
21 signals and are touted as supporting "high quality voice communications under the
22 most demanding IP network conditions."

23 33. The architecture shown evidences Cox's use of Network-based Call
24 Signaling ("NCS") protocol to effect telephony service on its network. NCS is used in
25 PacketCable applications providing VoIP telephony. A network implementing NCS
26

27 ² See Nuera OCRA BTX-8 and BTX-21 datasheet attached hereto as Exhibit H and
28 incorporated for all purposes. See, also, the BTX-4K Application Manual, Release
2002, attached hereto as Exhibit I and incorporated for all purposes.

1 interconnects a packet network with a PSTN using several discrete components,
2 including customer premise media gateways located at the customer premises that
3 perform the physical translation of voice signals to packetized digital data. NCS also
4 implements a centralized media gateway controller controlling network level media
5 gateway devices for call setup, routing, and tear down. In addition, the architecture
6 also uses signaling gateways to the traditional telecommunication channels, such as
7 SS7-based networks.

8 34. In a 2008 article, Cox described how it uses its IP network to offer VoIP
9 calling, stating that:

10 “Cox also uses the national backbone *to deliver voice signaling*
11 *and bearer traffic. We have several soft switches that are used*
12 *for regional control of the VoIP endpoints.* For example, we
13 have a softswitch in Atlanta that *controls the VoIP call setup* for
14 multiple markets across the country. Signaling traffic from these
15 markets flows over the backbone to Atlanta for hundreds of
16 thousands of calls each day. Network reliability is of the utmost
17 importance since these calls include 911 and other potentially
18 life-threatening emergency calls. Long distance traffic also rides
19 the backbone. *We have class 4 control points such that any calls*
20 *that originate in a Cox market and terminate in another Cox*
21 *market is transported over the backbone’s IP infrastructure and*
22 *are terminated on trunking gateways in the remote endpoint.*
23 These trunking gateways not only connect these calls to Cox’s
24 local telephony network, *they also connect to the local Public*
25 *Switched Telephony Network.*”³ (Emphasis added).

26 35. While Cox has since grown and modified its IP backbone to increase
27 transmission speed and capacity, upon information and belief, the architecture,
28 components, operation, and use are substantially the same as described in the articles

27 ³ See *The Cox National Backbone: Building a Scalable Optical Network for Future*
28 *Applications and Network Evolution* (2008), attached hereto as Exhibit J and
incorporated for all purposes.

1 referenced herein with respect to interconnection between Cox's network and the
2 PSTN for making and routing calls therebetween.

3 36. Network topology maps showing several SIP implementations for
4 offering VoIP telephony service over Cox's network show that Cox continues to
5 employ a media gateway connection point to bridge its network with the PSTN. For
6 example, as shown in the following graphic taken from a 2019 Avaya Application
7 Note, Cox uses Metaswitch gateways and Acme Session Border Controllers to
8 interface with the PSTN.⁴

9 37. Metaswitch's media gateways are access and trunking voice media
10 gateways configured to "serve as a critical component in integrated Class 4 and Class
11 5 migration strategies while acting as a vital circuit-to-packet transitional network
12 element."⁵ They support VoIP telephony over cable in PacketCable environments by
13 providing "trunking media gateway functionality between classic TDM/PSTN and
14 IMS networks" and "transform[ing] circuit-switched SS7 and ISDN messages for IP
15 networks."

16 38. Acme Packet Net-Net Session Border Controllers provide signal
17 processing, network processing, transcoding, network interfacing, and network
18 management functionality.⁶ The functionality offered by the Acme Packet Net-Net
19

20
21 ⁴ See Avaya document *Application Notes for Configuring Cox Communications SIP*
22 *Trunk with Avaya Aura Communication Manager 8.0, Avaya Aura Session Manager*
23 *8.0 and Avaya Session Border Controller for Enterprise 7.2 – Issue 1.0* attached
hereto as Exhibit K and incorporated for all purposes.

24 ⁵ See <https://www.metaswitch.com/products/core-network/universal-media-gateway>
25 and Metaswitch MG6050 Universal Media Gateway datasheet attached hereto as
26 Exhibit L and incorporated for all purposes. The functionality detailed therein are
27 substantially the same or equivalent to that of network gateways devices since at least
the early 2000s. See Exhibit O, "Gateways and Their Roles" article excerpt published
by Cisco Systems, Inc. in 2005.

28 ⁶ See Acme Packet Net-Net 9200 Data Sheet attached hereto as Exhibit M and
incorporated for all purposes.

SBCs are typical of that offered by SBCs in the telecom industry today.⁷

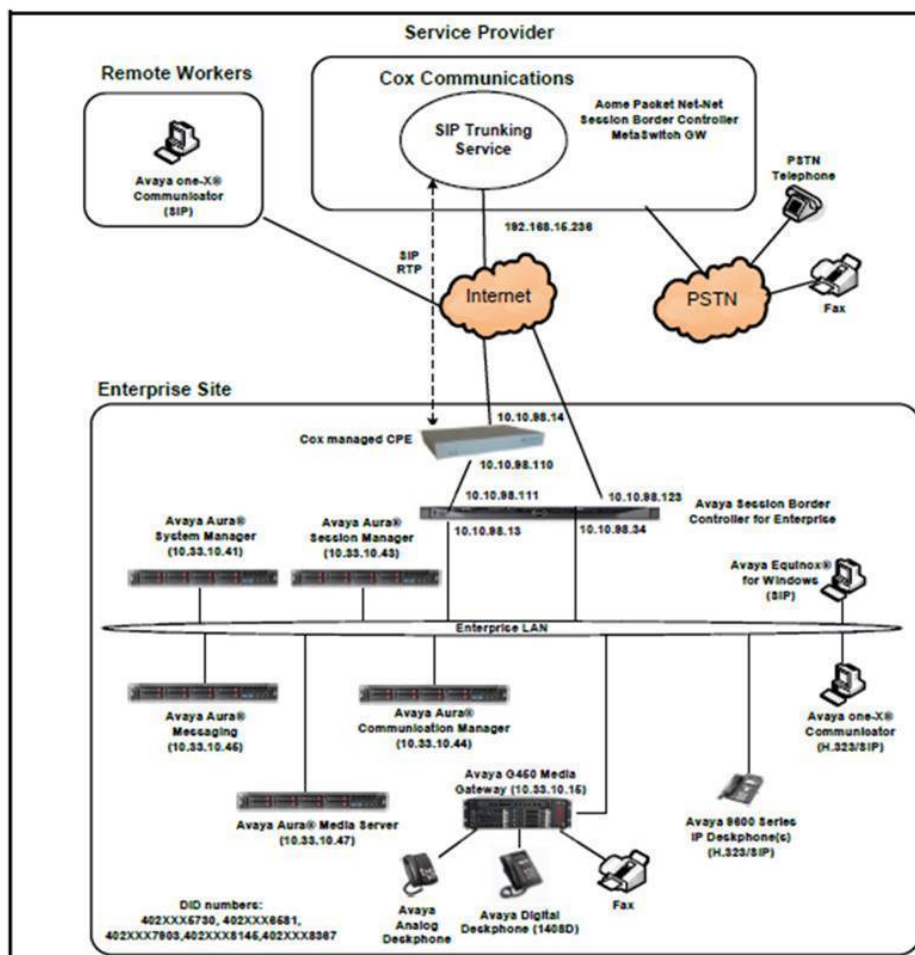


Figure 1: Avaya IP Telephony Network and Cox Communications SIP Trunk

39. Cox offers the Accused Residential Products and associated services over the Cox network and infrastructure described above and, in the manner described above.

40. The Accused Residential Products each include “Voice Premier” branded telephony service. Setup and use of Voice Premier phone service requires installation of a customer premise gateway device operable to perform necessary signal conversion of voice signals output from a phone for IP transmission over the Cox network. These devices are sometimes referred to by Cox as an MTA, eDVA, or a

⁷ See *Session Border Controllers for Dummies*, 6th Edition (2019) attached hereto as Exhibit N and incorporated for all purposes.

1 modem with embedded phone adapter.

2 41. Cox offers customer premise gateways to subscribers to the Accused
3 Residential Products. For example, Cox provides a Cisco DPQ3925 modem to its
4 residential subscribers which is a DOCSIS 3.0 wireless residential WiFi modem with
5 an embedded voice adapter. Cox installs this and other required customer premise
6 equipment for its subscribers or, alternatively, provides instructions for installation
7 and setup.

8 42. Voice Premier comes with enhanced features, including: voicemail;
9 simultaneous ring; busy line redial; call return; call blocking; speed dial; three-way
10 calling; call forwarding; call waiting; caller ID; call waiting ID; and access to the
11 Voice Everywhere mobile application.

12 43. The voicemail feature of Voice Premier allows for receipt and storage of
13 messages as audio files, written transcripts, or as emails delivered to a subscriber's
14 inbox. Cox provides instructions for activating and configuring readable voicemail
15 via its Voice Tools web interface. Subscribers can up to five email addresses to which
16 text versions of voicemails received will be sent.

17 44. Simultaneous ring allows a subscriber to designate additional phones to
18 which received calls are simultaneously routed upon receipt of an inbound call to a
19 subscriber. Cox provides instructions to its subscribers for activating simultaneous
20 ring and for adding the up to three additional phone numbers receiving simultaneously
21 routed calls. The additional numbers may correspond to addresses on an IP network
22 or PSTN and are stored within a Cox switch to effect simultaneous call routing.

23 45. Cox offers several types of business VoIP telephony service which are
24 provided over its network. Cox's VoiceManager Business Phone products and
25 services are IP Centrex based telephony services which rely on network level
26 switching rather than utilizing a customer premise private branch exchange device.
27 VoiceManager requires only use of customer premise gateways (e.g., modems)
28 provided and installed by Cox. In effect, VoiceManager operates identically to the

1 Accused Residential Products to provide VoIP telephone service.

2 46. Business Voice Manager Essential comes with the following calling
3 features: online management; VoiceManager Toolbar; call forwarding; call return;
4 call transfer; caller ID; call waiting; last number redial; three-way calling; call notify;
5 and remote office.

6 47. Business Voice Manager Enhanced and Unlimited additionally include
7 VoiceMail and Unified Messaging. Further, each includes the following calling
8 features in addition to those offered in connection with the Essential Plan: selective
9 call forwarding; simultaneous ring; priority alert; hold music/message; call blocking;
10 call park/pickup; do not disturb; call accept/reject; hunting; and auto attendant. Upon
11 information and belief, each of the voice mail, simultaneous ring, and caller ID
12 features, where offered, are provided in substantially the same manner and using
13 substantially the same network elements as described above in connection with the
14 Accused Residential Products.

15 48. Cox's Hosted Voice products and services comprise IP Centrex solutions
16 for providing VoIP telephony. According to Cox's website "IP Centrex is a business
17 VoIP phone service that delivers advanced, cloud-based calling and is fully hosted on
18 the Cox Business private network."⁸

19 49. IP Centrex implements a cloud-based PBX and utilizes network level
20 switching via the service provider (i.e., Cox) rather than utilizing client premises
21 equipment. "Through the application servers, the telecom manages and maintains all
22 of the software and communications equipment necessary for implementing the IP
23 Centrex service and then simply sells or leases these services to its customers,
24 meaning there is no equipment residing on customer premises at all."⁹ "[C]lients can
25 simply use a standard broadband IP connection to connect to this network and the
26 service provider can then deliver the 'PBX emulation' directly to IP phones."

27 _____
28 ⁸ See <https://www.cox.com/business/phone/hosted-voice.html>.

⁹ See <https://www.techopedia.com/definition/7812/ip-centrex>.

1 50. Call control, routing, and add-on features and services are implemented
2 via network level application servers for Hosted Voice products and services. These
3 services include: use of unified communications applications; simultaneous call
4 routing to multiple addresses designated by the subscriber; Voicemail to Email;
5 VoiceManager Toolbar for computer-to-phone calling; and others.

6 51. Cox provides tutorials through its website for use of IP phones by its
7 customers to set up and use the advanced calling features provided with its Hosted
8 Voice products and services.¹⁰ Cox provides additional information for configuring
9 various advanced features and services offered with its Accused Business Products via
10 “Support” pages on its website, such as instructions for setting up email addresses for
11 voicemail-to-text email delivery.¹¹

12 52. Cox offers SIP and PRI trunking telephony products and services to its
13 business customers. These products and services provide access to the Cox network
14 and infrastructure to accommodate voice calling to phones on IP networks as well as
15 the PSTN. Cox’s SIP trunking service utilizes a customer premise PBX for call
16 routing within the customer’s private network. Cox provides a listing of SIP-Certified
17 PBX devices that are operable with its network and infrastructure.

18 **COUNT I**

19 **PATENT INFRINGEMENT**

20 **U.S. Patent No. 7,068,668**

21 53. Centre One repeats and re-alleges all preceding paragraphs of this
22 Complaint, as though fully set forth herein.

23 54. On June 12, 2013, an *Inter Partes* Reexamination Certificate affirming
24 the validity of the ‘668 Patent was duly and legally issued for “Method and Apparatus
25

26 ¹⁰ See, e.g., [http://media.cox.com/cbsupport/videos/phone/interface/cisco_525_demo/
27 index.html?_ga=2.226423001.231289706.1568996035-1915431346.1568162070](http://media.cox.com/cbsupport/videos/phone/interface/cisco_525_demo/index.html?_ga=2.226423001.231289706.1568996035-1915431346.1568162070).

28 ¹¹ See [https://www.cox.com/business/support/setting-up-an-email-address-for-voice-
mail-notification-and-email-delivery.html](https://www.cox.com/business/support/setting-up-an-email-address-for-voice-mail-notification-and-email-delivery.html).

1 for Interfacing a Public Switched Telephone Network and an Internet Protocol
2 Network for Multi-Media Communication.” As of the filing of this Complaint, the
3 ‘668 Patent remains in force. A true and correct copy of the ‘668 Patent with the
4 Reexamination Certificate appended thereto is attached as Exhibit A to this Complaint
5 and made a part hereof.

6 55. Centre One is the owner of all right and title in the ‘668 Patent, including
7 all rights to enforce and prosecute action for infringement of the ‘668 Patent and to
8 collect damages for all relevant times against infringers of the ‘668 Patent.
9 Accordingly, Centre One possesses the exclusive right and standing to prosecute the
10 present action for infringement of the ‘668 Patent by Defendant.

11 56. The ‘668 Patent generally discloses and claims systems implemented
12 with a computer-controlled switch storing destination addresses on the PSTN an IP
13 network for subscribers and operable to accommodate real-time voice communication
14 between and among devices connected to an IP network and devices connected to a
15 PSTN. The systems are configured to enable conversion of voice-to-data and data-to-
16 voice signals to interface the two network types via hardware and software
17 components, including: a computer-controlled switch for simultaneously routing calls
18 to stored addresses on the PSTN and IP networks; a gate interface and gateway for
19 interfacing the signals of the PSTN and IP networks; and gatekeeper circuitry for call
20 control and call routing functions, such as address translation, admission control,
21 bandwidth management, and zone management. The systems are implemented with a
22 voice response unit converting voice signals into digital tones for use by the
23 computer-controlled switch.

24 57. Defendant, without authority, consent, right, or license, make, has made,
25 use, and sell the Accused Residential Products, VoiceManager Enhanced,
26 VoiceManager Premium, and Hosted Voice products which operate on Cox’s network
27 and infrastructure which comprises each of the components and functionality of the
28 system claimed in at least claim 3 of the ‘668 Patent. Defendant’s offering for sale

1 and selling the Accused Residential Products therefore directly infringes, either
2 literally or under the doctrine of equivalents, at least Claim 3 of the ‘668 Patent.
3 Centre One expressly reserves the right to assert additional claims of the ‘668 Patent
4 against Defendant.

5 58. Centre One has been damaged as a result of Defendant’s infringing
6 conduct. Defendant is, thus, liable to Centre One in an amount that adequately
7 compensates for their infringement, which, by law, cannot be less than a reasonable
8 royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

9 **COUNT II**

10 **PATENT INFRINGEMENT**

11 **U.S. Patent No. 7,486,667**

12 59. Centre One repeats and re-alleges all preceding paragraphs of this
13 Complaint, as though fully set forth herein.

14 60. On September 16, 2013, an *Inter Partes* Reexamination Certificate
15 affirming the validity of claim 14 of the ‘667 Patent was duly and legally issued for
16 “Method and Apparatus for Interfacing a Public Switched Telephone Network and an
17 Internet Protocol Network for Multi-Media Communication.” As of the filing of this
18 Complaint, the ‘667 Patent remains in force. A true and correct copy of the ‘667
19 Patent with the Reexamination Certificate appended thereto is attached as Exhibit B to
20 this Complaint and made a part hereof.

21 61. Centre One is the owner of all right and title in the ‘667 Patent, including
22 all rights to enforce and prosecute action for infringement of the ‘667 Patent and to
23 collect damages for all relevant times against infringers of the ‘667 Patent.
24 Accordingly, Centre One possesses the exclusive right and standing to prosecute the
25 present action for infringement of the ‘667 Patent by Defendant.

26 62. The ‘667 Patent discloses and claims methods for routing real-time voice
27 communications to a subscriber received from an Internet-connected device and
28 delivering a message if the call is not picked up. The real-time communication may

1 be routed from or to devices connected to either a PSTN or an IP network via
2 conversion of voice signals to digital tones by a voice response unit and gateway
3 communicatively connected to a switch. Received calls may be routed to each of a
4 predesignated IP address and a PSTN number assigned to the subscriber. The
5 communication may be received as a message in voice, e-mail, or facsimile form as
6 determined by the subscriber.

7 63. Defendant, without authority, consent, right, or license, make, has made,
8 use, and sell Accused Residential Products, VoiceManager Enhanced, VoiceManager
9 Premium, and Hosted Voice products which operate on Cox's network and
10 infrastructure which comprise each of the components and functional steps of the
11 method claimed in at least claim 14 of the '667 Patent. Defendant therefore directly
12 infringes, either literally or under the doctrine of equivalents, claim 14 of the '667
13 Patent.

14 64. Centre One has been damaged as a result of Defendant's infringing
15 conduct. Defendant is, thus, liable to Centre One in an amount that adequately
16 compensates for their infringement, which, by law, cannot be less than a reasonable
17 royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

18 COUNT III

19 **PATENT INFRINGEMENT**

20 **U.S. Patent No. 8,125,982 B2**

21 65. Centre One repeats and re-alleges all preceding paragraphs of this
22 Complaint, as though fully set forth herein.

23 66. On February 28, 2012 the '982 Patent was duly and legally issued for
24 "Method and Apparatus for Interfacing a Public Switched Telephone Network and an
25 Internet Protocol Network for Multi-Media Communication." As of the filing of this
26 Complaint, the '982 Patent remains in force. A true and correct copy of the '982
27 Patent is attached as Exhibit C to this Complaint and made a part hereof.

28 67. Centre One is the owner of all right and title in the '982 Patent, including

1 all rights to enforce and prosecute action for infringement of the '982 Patent and to
2 collect damages for all relevant times against infringers of the '982 Patent.
3 Accordingly, Centre One possesses the exclusive right and standing to prosecute the
4 present action for infringement of the '982 Patent by Defendant.

5 68. The '982 Patent discloses and claims systems and methods that
6 accommodate real-time voice communication between and among devices connected
7 to an IP network and devices connected to a PSTN and that provide caller
8 identification. The claimed systems and methods are implemented with a computer-
9 controlled switch storing for a subscriber at least one destination address on each of a
10 PSTN and an IP network to which calls may be routed. Conversion of voice signals to
11 digital tones, or vice versa, is performed to interface the two networks, along with call
12 control and call routing functions such as address translation, admission control,
13 bandwidth management, and zone management. Caller identification functions are
14 performed upon routing of a call.

15 69. Defendant, without authority, consent, right, or license, make, has made,
16 use, sell, and/or offer for sale the Accused Residential Products, VoiceManager
17 Essential, VoiceManager Enhanced, VoiceManager Premium, and Hosted Voice
18 products which operate on Cox's network and infrastructure comprising the
19 components and functionality of the system claimed in at least claim 1 of the '982
20 Patent. Defendant therefore directly infringes, either literally or under the doctrine of
21 equivalents, at least claim 1 of the '982 Patent. Centre One expressly reserves the
22 right to assert additional claims of the '982 Patent against Defendant.

23 70. Centre One has been damaged as a result of Defendant's infringing
24 conduct. Defendant is, thus, liable to Centre One in an amount that adequately
25 compensates for their infringement, which, by law, cannot be less than a reasonable
26 royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

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COUNT IV

PATENT INFRINGEMENT

U.S. Patent No. 8,724,643 B2

71. Centre One repeats and re-alleges all preceding paragraphs of this Complaint, as though fully set forth herein.

72. On May 13, 2014 the ‘643 Patent was duly and legally issued for “Providing Real-Time Voice Communication Between Devices Connected to an Internet Protocol Network and Devices Connected to a Public Switched Telephone Network.” As of the filing of this Complaint, the ‘643 Patent remains in force. A true and correct copy of the ‘643 Patent is attached as Exhibit D to this Complaint and made a part hereof.

73. Centre One is the owner of all right and title in the ‘643 Patent, including all rights to enforce and prosecute action for infringement of the ‘643 Patent and to collect damages for all relevant times against infringers of the ‘643 Patent. Accordingly, Centre One possesses the exclusive right and standing to prosecute the present action for infringement of the ‘643 Patent by Defendant.

74. The ‘643 Patent discloses and claims systems operable to accommodate and methods accommodating real-time voice communication between and among devices connected to an IP network and devices connected to a PSTN. Such operation entails conversion of voice signals to packetized digital data signals and vice versa to interface the IP network and PSTN. Hardware and software components claimed effect call control functions such as address translation, admission control, bandwidth management, and zone management. Calls are routed to any of the one or more destination addresses on the IP network or PSTN stored for a subscriber.

75. Defendant, without authority, consent, right, or license, make, has made, use, sell, and/or offer for sale the Accused Residential Products, VoiceManager Enhanced, VoiceManager Premium, and Hosted Voice products which operate on Cox’s network and infrastructure comprising the components and functional steps of

1 the method claimed in at least claims 10 and 11 of the ‘643 Patent. Defendant
2 therefore directly infringes, either literally or under the doctrine of equivalents, at least
3 claims 10 and 11 of the ‘643 Patent. Centre One expressly reserves the right to assert
4 additional claims of the ‘643 Patent against Defendant.

5 76. Centre One has been damaged as a result of Defendant’s infringing
6 conduct. Defendant is, thus, liable to Centre One in an amount that adequately
7 compensates for their infringement, which, by law, cannot be less than a reasonable
8 royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

9 **COUNT V**

10 **PATENT INFRINGEMENT**

11 **U.S. Patent No. 9,774,745 B2**

12 77. Centre One repeats and re-alleges all preceding paragraphs of this
13 Complaint, as though fully set forth herein.

14 78. On September 26, 2017 the ‘745 Patent was duly and legally issued for
15 “Providing Real-Time Voice Communication Between Devices Connected to an
16 Internet Protocol Network and Devices Connected to a Public Switched Telephone
17 Network.” As of the filing of this Complaint, the ‘745 Patent remains in force. A true
18 and correct copy of the ‘745 Patent is attached as Exhibit E to this Complaint and
19 made a part hereof.

20 79. Centre One is the owner of all right and title in the ‘745 Patent, including
21 all rights to enforce and prosecute action for infringement of the ‘745 Patent and to
22 collect damages for all relevant times against infringers of the ‘745 Patent.
23 Accordingly, Centre One possesses the exclusive right and standing to prosecute the
24 present action for infringement of the ‘745 Patent by Defendant.

25 80. The ‘745 Patent discloses and claims a system for packetizing
26 depacketized voice information received by a telephone using a local gateway device.
27 The packetized information is transmitted to and over an IP network to provide
28 packetized digital voice data to a computer-controlled switch operable to

1 accommodate communication between the IP network and a PSTN. Transmission of
2 the packetized voice information to the IP network is effected without use of a private
3 branch exchange (“PBX”).

4 81. Defendant, without authority, consent, right, or license, make, has made,
5 use, and sell the Accused Residential Products, VoiceManager Essential,
6 VoiceManager Enhanced, VoiceManager Premium, and Hosted Voice products which
7 operate on Cox’s network and infrastructure which comprises the components and
8 functionality of the system claimed in at least claim 1 of the ‘745 Patent. Defendant
9 therefore directly infringe, either literally or under the doctrine of equivalents, at least
10 claim 1 of the ‘745 Patent. Centre One expressly reserves the right to assert additional
11 claims of the ‘745 Patent against Defendant.

12 82. Centre One has been damaged as a result of Defendant’s infringing
13 conduct. Defendant is, thus, liable to Centre One in an amount that adequately
14 compensates for their infringement, which, by law, cannot be less than a reasonable
15 royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

16 **COUNT VI**

17 **PATENT INFRINGEMENT**

18 **U.S. Patent No. 10,063,710 B2**

19 83. Centre One repeats and re-alleges all preceding paragraphs of this
20 Complaint, as though fully set forth herein.

21 84. On August 28, 2018 the ‘710 Patent was duly and legally issued for
22 “Providing Real-Time Voice Communication Between Devices Connected to an
23 Internet Protocol Network and Devices Connected to a Public Switched Telephone
24 Network.” As of the filing of this Complaint, the ‘710 Patent remains in force. A true
25 and correct copy of the ‘710 Patent is attached as Exhibit F to this Complaint and
26 made a part hereof.

27 85. Centre One is the owner of all right and title in the ‘710 Patent, including
28 all rights to enforce and prosecute action for infringement of the ‘710 Patent and to

1 collect damages for all relevant times against infringers of the ‘710 Patent.
2 Accordingly, Centre One possesses the exclusive right and standing to prosecute the
3 present action for infringement of the ‘710 Patent by Defendant.

4 86. The ‘710 Patent discloses and claims systems and methods usable to
5 facilitate real-time voice communication between devices connected to an IP network
6 and devices connected to a PSTN. The systems and methods claimed employ a gate
7 interface circuitry communicatively coupled to each of the IP network and the PSTN
8 to receive a call from a device on the IP network and depacketize the voice data. A
9 voice response unit converts the depacketized voice data to digital tones which are
10 used by a computer control and switch route the call to a destination address of the
11 subscriber from among a plurality of destination addresses of the subscriber stored by
12 the computer control.

13 87. Defendant, without authority, consent, right, or license, make, has made,
14 use, and sell the Accused Residential Products, VoiceManager Essential,
15 VoiceManager Enhanced, VoiceManager Premium, and Hosted Voice products which
16 operate on Cox’s networks and infrastructure which comprises the components and
17 functionality of the system claimed in at least claim 1 of the ‘710 Patent. Defendant
18 therefore directly infringe, either literally or under the doctrine of equivalents, at least
19 claim 1 of the ‘710 Patent. Centre One expressly reserves the right to assert additional
20 claims of the ‘710 Patent against Defendant.

21 88. Centre One has been damaged as a result of Defendant’s infringing
22 conduct. Defendant is, thus, liable to Centre One in an amount that adequately
23 compensates for their infringement, which, by law, cannot be less than a reasonable
24 royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

25 **VII. PRAYER FOR RELIEF**

26 WHEREFORE, Plaintiff respectfully requests that the Court find in its favor
27 and against Defendant, and that the Court grant Plaintiff the following relief:

28 a. Judgment that one or more claims of the Asserted Patents have been

1 directly infringed, either literally or under the doctrine of equivalents, by
2 Defendant;

- 3 b. Judgment that Defendant account for and pay to Plaintiff all damages to
4 and costs incurred by Plaintiff because of Defendant's infringing
5 activities and other conduct complained of herein, including enhanced
6 damages as permitted by 35 U.S.C. § 284;
- 7 d. That Plaintiff be granted pre-judgment and post-judgment interest on the
8 damages caused by Defendant's infringing activities and other conduct
9 complained of herein;
- 10 d. That the Court declare this an exceptional case and award Plaintiff its
11 reasonable attorney's fees and costs in accordance with 35 U.S.C. § 285;
12 and
- 13 e. That Defendant, its officers, agents, servants and employees, and those
14 persons in active concert and participation therewith, be permanently
15 enjoined from infringement of one or more claims of the Asserted Patents
16 or, in the alternative, if the Court finds that an injunction is not
17 warranted, Plaintiff requests an award of post judgment royalty to
18 compensate for future infringement; and
- 19 f. That Plaintiff be granted such other and further relief as the Court may
20 deem just and proper under the circumstances.

21
22 DATED: September 25, 2019

UMBERG ZIPSER LLP

23 By /s/ Mark A. Finkelstein

24 Mark A. Finkelstein

25 FRIEDMAN, SUDER & COOKE

26 Brett M. Pinkus (*Pro Hac Vice* to be filed)

27 Attorneys for Plaintiff

28 CENTRE ONE

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DEMAND FOR JURY TRIAL

Plaintiff Centre One hereby demands a trial by jury, pursuant to Rule 38 of the Federal Rules of Civil Procedure, on all claims so triable.

DATED: September 25, 2019 UMBERG ZIPSER LLP

/s/ Mark A. Finkelstein
Mark A. Finkelstein

Attorneys for Plaintiff
CENTRE ONE