

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

CENTRE ONE,

Plaintiff,

v.

WIDOPENWEST, INC.,

Defendant.

C.A. No.

JURY TRIAL DEMANDED

PLAINTIFF’S ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff CENTRE ONE files this Original Complaint against Defendant WIDOPENWEST, INC. alleging as follows:

I. THE PARTIES

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

2. Defendant WIDOPENWEST, INC. (“Defendant” or “WOW”) is a limited liability company organized under the laws of Delaware with a principal place of business at 7887 East Belleview Avenue, Suite 1000, Englewood, Colorado. Defendant may be served with process by serving the its Registered Agent, Corporation Service Company at 251 Little Falls Drive, Wilmington, Delaware 19808.

II. JURISDICTION AND VENUE

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

4. WOW is a telecommunications company in the United States, offering and/or providing telephone services to its subscribers. WOW operates and maintains a voice and data network through which it sells, leases, and offers for sale or lease products and services to commercial and residential subscribers, including the Accused Products as described herein. WOW is organized under the laws of Delaware and, as such, resides in Delaware. Additionally, WOW has sufficient minimum contacts with the District of Delaware such that this venue is fair and reasonable by virtue of its having committed such purposeful acts and/or transactions in this District that it reasonably should know and expect that they could be hailed into this Court as a consequence of such activity.

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

III. BACKGROUND AND FACTS

6. Centre One is the owner of all rights and title in and to U.S. Patent No. 10,063,710 (“the ‘710 Patent”), U.S. Patent No. 8,724,643 (“the ‘643 Patent”), U.S. Patent No. 8,125,982 (“the ‘982 Patent”), U.S. Patent No. 7,486,667 (“the ‘667 Patent”), and U.S. Patent No. 7,068,668 (“the ‘668 Patent”). These patents are sometimes referred to collectively hereinafter as “the Asserted Patents.” Each of the Asserted Patents claims priority through the patent application issuing as the ‘668 Patent, filed on January 7, 2000.

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

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

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

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

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

12. In early 1998, Mr. Feuer began working with engineers at Microsoft Corp. to refine aspects of the alpha version of its NetMeeting client that was intended to provide video through a computer-to-computer connection and with Cisco Systems and Ethereal exploring signal conversions necessary to modify and integrate Cisco gateway and gatekeeper components

with a switch to make and receive a call between a computer and a telephone on the Public Switched Telephone Network (“PSTN”), which were then incompatible communications systems.

13. By late 1998, Mr. Feuer had designed and developed a system of hardware and software capable of making and receiving phone calls using Internet Protocol (“IP”) communications, making connections between a telephone on the PSTN and his computer on an IP network. Mr. Feuer continued to further refine this system to improve its reliability, call quality, and services until it approached that of a standard telephone call made over the PSTN.

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

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

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

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

IV. PRIOR LITIGATIONS

18. In 2009, Centre One filed a lawsuit asserting patent infringement of the '667 and '668 Patents against Vonage Holding Corp., Vonage America Inc., Verizon Communications Inc., and DeltaThree Inc. in Case No. 6:08-cv-00467-LED filed in the Eastern District of Texas. The '667 and '668 Patents were placed in reexamination during pendency of the lawsuit and were later confirmed as patentable after resolution of the lawsuit.

19. Since that time, the inventions in Centre One's patents have been widely adopted across the industry. In order to enforce its patent rights, Centre One has litigated against the following major players in the Central District of California: AT&T, Inc. and AT&T Corporation (Civil Case No. 8:18-cv-01527-CJC-KES); Charter Communications LLC (Civil Case No. 8:19-cv-02317-CJC-KES); Comcast Cable Communications, LLC, Comcast Business Communications, LLC, Comcast IP Phone, LLC and Comcast Phone of California LLC (Civil Case No. 8:19-cv-02422-CJC-KES); Cox Communications, Inc. (Civil Case No. 8:19-cv-01832-CJC-KES). Each of the above matters have been resolved to the parties' mutual satisfaction and resulted in dismissals of the respective litigations.

V. THE ASSERTED PATENTS AND TECHNOLOGY

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

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

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

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

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

VI. THE ACCUSED PRODUCTS

24. WOW makes, uses, sells, and/or offers for sale VoIP products and services in nineteen regional U.S. markets that directly and indirectly infringe one or more claims of the Asserted Patents. More specifically, WOW makes, uses, sells, and/or offers for sale residential home phone products and services bundled with other services. Residential phone services offered include WOW! Home Phone, WOW! Home Phone Plus, WOW! Smart Choice, and WOW! Advanced. These home phone products and services may be bundled with WOW! Internet 100, Internet 500, and Internet 1000 products and services. Additionally, WOW! residential phone services may be bundled with both internet and television service plans, including WOW! Medium and Large Cable Packages. These residential products are referred to collectively, herein, as “the Accused Residential Products.”

25. WOW makes, uses, sells, and/or offers for sale business phone services including Basic and Complete Business Phone, SIP Trunking, PRI Trunking, Hosted VoIP, and Virtual

Voice products and services. Each may be offered in connection with bundled service plans which additionally include internet and television service. These business telephony products and services are sometimes referred to collectively as “the Accused Business Products.”

26. Each of the Accused Residential Products and the Accused Business Products are referred to collectively herein as “the Accused Products.” The Accused Products are offered for sale and sold to WOW customers using WOW’s hybrid fiber-coax network (HFC) and infrastructure, which is operable to transmit broadband content including voice, video, and data.

27. WOW has described its voice services business in filings made with the SEC, stating:

“We are the sixth largest cable operator in the United States ranked by number of customers as of December 31, 2016. We provide high-speed data (“HSD”), cable television (“Video”), Voice over IP-based telephony (“Telephony”) and business-class services to a service area that includes approximately 3.0 million homes and businesses. *Our services are delivered across 19 markets via our advanced hybrid fiber-coaxial (“HFC”) cable network...*

We believe we have one of the most technologically advanced, fiber-rich networks in our service areas. We have designed our network with the goal of maximizing Internet speeds and accommodating future broadband demand. Our *all-digital HFC infrastructure* operates with a bandwidth capacity of 750 Mhz or higher in 97% of our footprint and is upgradeable to 1.2 Ghz throughout. All of our new communities are built with a capacity of 1.2 Ghz. *Our HFC network is fully upgraded with DOCSIS 3.0 and is capable of being upgraded to DOCSIS 3.1 in all of our markets.* According to CableLabs, a non-profit innovation and

research and development lab founded by members of the cable industry, DOCSIS 3.1 technology has the capacity to support network speeds up to 10 Gbps downstream and up to 1 Gbps upstream. We serve an average of 310 homes per node, enabling us to deliver quality HSD service and the capability to provide broadband speeds of 1 Gbps and higher. *Our HFC network consists of a high-bandwidth, multi-use service provider backbone, which allows us to centrally source data, voice and video services for both residential and business traffic.* We believe the quality and uniform architecture of our next generation network is a competitive advantage that enables us to offer high-quality broadband services that meet our current and future customers' needs without incurring significant upgrade capital expenditures.”¹

28. WOW’s HFC network has been built up through several acquisitions of existing regional telecoms and associated infrastructure, including but not limited to: acquisition of Americast’s network servicing Chicago, Cleveland, Detroit, and others (2001); acquisition of Broadstripe LLC’s cable network in Michigan (2011); purchase of broadband company Knology, Inc. (2012); and acquisition of NuLink cable company (2016). WOW also built and continues to build its HFC network through direct “overbuilding” of both cable and fiber on top of the local phone company and/or local cable multiple service operators in several markets.

29. WOW’s HFC network is compatible with and operates in accordance with PacketCable and with Data Over Cable Service Interface Specifications (“DOCSIS”) 3.0 and 3.1

¹ See Exh. F at p. 50 (emphasis added).

telecommunications standards. As of early 2018, over 95% of WOW's combined HFC network across its several markets deployed DOCSIS 3.1 equipment.²

30. PacketCable is an HFC network specification addressed to utilization of Internet Protocol ("IP") for transmission of traffic over an HFC network as data packets. PacketCable is based on DOCSIS and implements extensions for data and voice traffic transmission over cable network architecture. PacketCable accommodates the interconnection of an HFC network with the PSTN through use of various protocols and signal conversions. Protocols used to effect two way voice communication among and between the HFC and PSTN include DOCSIS, Real Time Transport Protocol ("RTP"), Media Gateway Control Protocol ("MGCP"), and Network-based Call Signaling ("NCS"), among others.

31. The PacketCable specification details a network architecture, shown in Figure 1 below, accessible to subscribers for network access to send and receive data, including voice data, over the network.^{3, 4} The PacketCable architecture accommodates two-way voice calling between devices on a local network connected to the PacketCable network ("UE's" at bottom of Fig. 1) and devices connected to "Peer Networks" or the "PSTN" via the Access Network and Interconnect components (in red box of Fig. 1). UEs may comprise NCS-based or SIP-based telephones, including wired, wireless, and WiFi-enabled mobile phones. For outbound voice calling from a subscriber telephone, the telephone accesses the PacketCable network via "Access

² See Broadband Technology Report article entitled "*WOW! Launching DOCSIS 3.1 Gigabit Footprint-Wide*" attached hereto as Exhibit G and incorporated for all purposes.

³ See, generally, *PacketCable 2.0 Architecture Framework Technical Report*, Cable Television Laboratories, Inc., 2001 at §§ 5.2 and 6. This Report is attached hereto as Exhibit H and incorporated for all purposes.

⁴ See, generally, *VoIP Troubleshooting From the Headend*, presentation by Arris dated Oct. 25, 2007 at slides 4, 5, and 9-12. This presentation is attached hereto as Exhibit I and incorporated for all purposes.

Network” components, such as the Multimedia Terminal Adapter (“MTA”) and modems shown in Fig. 1, for example. These components are gateways which may be disposed at the customer premise and operate to receive and convert voice input and packetize it into data packets for IP transmission to a Cable Modem Termination System (“CMTS”) network component. The CMTS accesses Edge and Core components for routing, call control, and application of additional calling features.

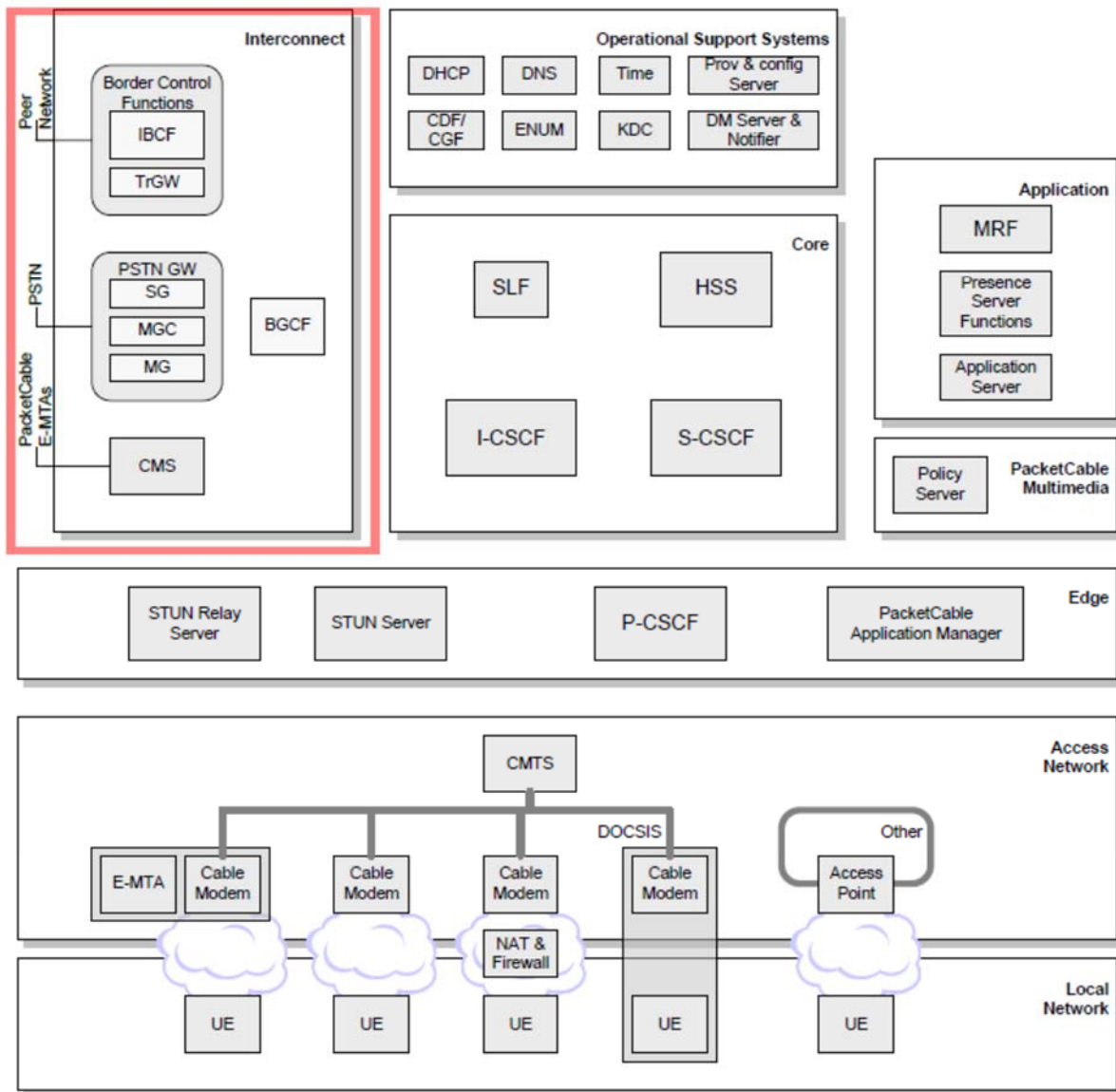


Figure 1 - PacketCable Reference Architecture

32. The PacketCable architecture accommodates voice calling between and among devices connected to the HFC broadband network and devices connected to the PSTN via the Interconnect components. The Breakout Gateway Control Function (“BGCF”) determines the Media Gateway Controller (“MGC”) to utilize for PSTN interconnect based on stored information. The MGC controls Media Gateways (“MG”) to provide transport layer and bearer interconnection to the PSTN. Signaling Gateways (“SG”) provide performs signaling conversion at a transport layer between SS7-based transport and the IP-based transport used in the PacketCable network. Signaling for call routing and setup for calls to devices on the PSTN is shown in Fig. 4 and Table 2, below.⁵

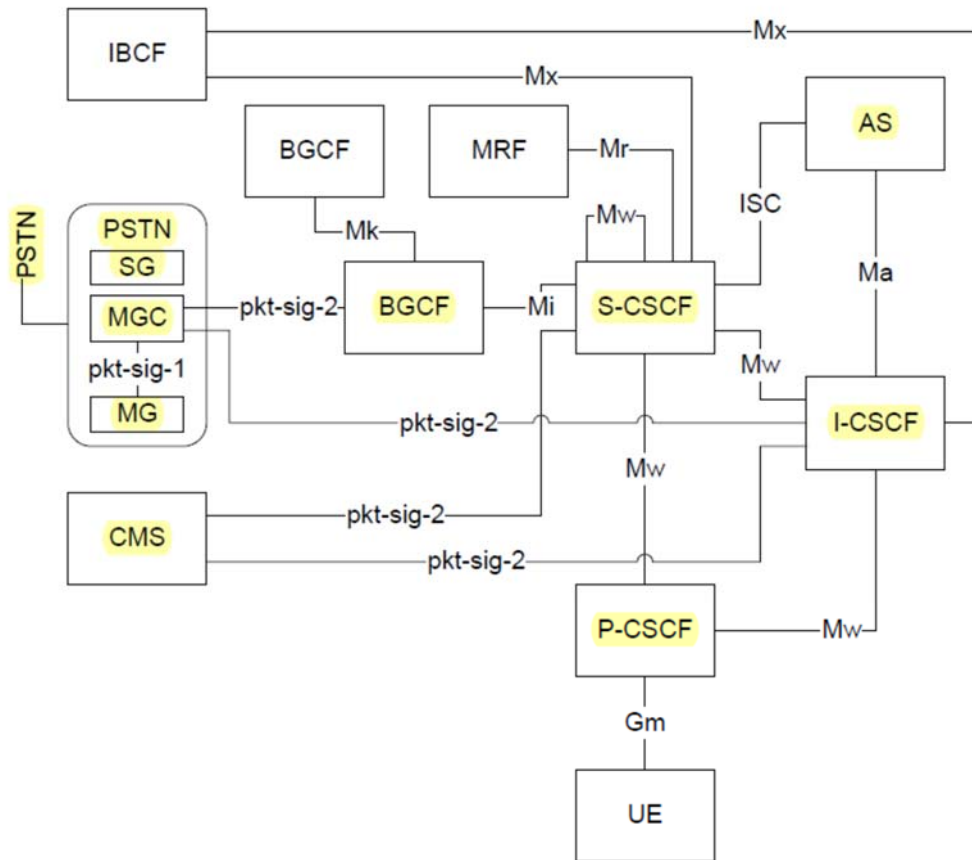


Figure 4 - Signaling Reference Points

⁵ See, generally, *PacketCable 2.0 Architecture Framework Technical Report*, Cable Television Laboratories, Inc., 2001 at § 7.1. This Report is attached hereto as Exhibit H and incorporated for all purposes.

Table 2 - Signaling Reference Point Descriptions

Reference Point	PacketCable Network Elements	Reference Point Description
Mx	I-CSCF – IBCF S-CSCF – IBCF	Allows an S-CSCF or I-CSCF to communicate with an IBCF when interworking with another network. For example, a session between the home and peer network could be routed via an IBCF in order to provide interworking between IPv6 and IPv4 SIP networks.
Mi	S-CSCF – BGCF	Allows the S-CSCF to forward the session signaling to the BGCF for the purpose of interworking with the PSTN networks.
Mk	BGCF – BGCF	Allows one BGCF to forward the session signaling to another BGCF.
Mw	P-CSCF – I-CSCF P-CSCF – S-CSCF I-CSCF – S-CSCF S-CSCF – S-CSCF	Allows the communication and forwarding of signaling messaging among CSCFs in support of registration and session control. It also allows the CMS to exchange SIP messages with the S-CSCF and I-CSCF for calls between E-MTAs and UEs.
Ma	I-CSCF – AS	Allows the I-CSCF to forward SIP requests destined to a Public Service Identity hosted by an Application Server directly to the Application Server.
Mr	S-CSCF – MRF	Allows an S-CSCF to exchange session signaling with an MRF to provide multimedia functions, such as network-provided tones and announcements, multi-port conferencing, and media stream transcoding.
ISC	S-CSCF – AS	Allows an S-CSCF to communicate with an AS in support of various applications.
Gm	UE – P-CSCF	Allows the UE to communicate with the P-CSCF for registration and session control.
pkt-sig-1	MGC – MG	Trunking Gateway Control Protocol (TGCP) interface as defined in the PacketCable TGCP Specification [TGCP].
pkt-sig-2	CMS – S-CSCF CMS – I-CSCF MGC – BGCF MGC – I-CSCF	CMSS protocol as defined in the PacketCable CMS to CMS Signaling Specification [CMSS]. Allows PacketCable E-MTAs to establish voice sessions with PacketCable elements. Also allows the BGCF and I-CSCF to exchange session signaling with a PacketCable MGC for the purpose of interworking with the PSTN.

33. WOW's HFC network utilizes BigBand Network's Cuda CMTS⁶ and Arris' C4 CMTS⁷ components within its HFC network, each of which are designed to meet and implement PacketCable and DOCSIS signaling and communication standards.⁸

⁶ See *WOW Deploys BigBand CMTS* article, originally published on Multichannel News on January 16, 2007, attached hereto as Exhibit J and incorporated for all purposes.

⁷ See *WOW! Picks Arris CMTS, eMTAs* article, originally published on LightReading on September 5, 2007, attached hereto as Exhibit L and incorporated for all purposes.

⁸ See, e.g., C4 CMTS System Release 5.2 datasheet attached hereto as Exhibit K and incorporated for all purposes and *BigBand Goes Dutch with M-CMTS* article, originally published on LightReading on March 27, 2007, attached hereto as Exhibit M and incorporated for all purposes.

34. WOW's HFC network also comprises switches configured for use within PacketCable complaint system architecture. For example, upon information and belief, WOW's HFC network comprises Nortel CS2000 switches which effect call processing and call routing via control of media gateways.⁹ These media gateways perform digital signal processing allowing for interoperability between its network and legacy PSTN users for voice calling. This processing requires signal conversions between packetized data used on IP networks and voice signals used on the PSTN.

35. WOW provides customer premise gateways to its residential and business customers for accessing WOW's HFC network for VoIP telephone service.¹⁰ For example, WOW provides its customers with Arris EMTAs which are DOCSIS and PacketCable compliant. These gateway devices are disposed at the subscriber location and are locally connected to a telephone. They receive voice data and convert it to packetized data for transmission over WOW's HFC network.

36. Upon information and belief, WOW's HFC network comprises these and other Interconnect components and operates in accordance with the PacketCable architecture shown and described above. These Interconnect components are utilized by WOW to route and control real time voice calls between its subscribers connected to the WOW HFC network and devices connected to the PSTN.

⁹ See Original Complaint in *Sprint Communications Company L.P. v. WideOpenWest, Inc., et. al.*, Case No. 1:18-cv-00361-UNA, filed in the Federal District Court for the District of Delaware. Excerpts of this complaint are attached hereto as Exhibit N and incorporated for all purposes.

¹⁰ See excerpts from WOW Phone Support and FAQ, available at URL: <https://www.wowway.com/support/phone/north> and attached hereto as Exhibit O. See also Exhibits P and Q listing WOW-approved eMTAs usable with its VoIP telephony services.

37. WOW offers each of the Accused Products and associated services over the WOW network and infrastructure described above and, in accordance with the applicable specifications and protocols described above.

38. The Accused Residential Products require 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 WOW network. The CPE gateway devices used must meet DOCSIS 3.0 or 3.1 standards (depending on market). These devices are sometimes referred to by WOW as an MTA, eDVA, or a modem with embedded phone adapter. WOW offers customer premise gateways to subscribers to the Accused Residential Products and will install them for new subscribers. Embedded MTAs provided by WOW are interposed between subscriber phones and the remainder of the WOW's HFC network to accommodate VoIP calling over the network. The MTA is a gateway device that performs all necessary signal conversion of voice signals for IP transmission using a Digital Signal Processor ("DSP").

39. The Accused Residential Products come with enhanced features accommodated via use of application servers and/or software included within or embedded within WOW's HFC network or components thereof. These enhanced features include at least: call waiting; call forwarding; 3-way calling; auto call return; caller ID; voicemail; and, voicemail via email. The voicemail feature allows for receipt and storage of messages as audio files, written transcripts, or as emails delivered to a subscriber's inbox. WOW provides instructions in its user guides for activating and configuring readable voicemail for its subscribers.

40. The Accused Business Products come with enhanced features accommodated via use of application servers and/or software included within or embedded within WOW's HFC network or components thereof. These enhanced features include at least those offered in

connection with the Accused Residential Products as well as Find Me / Follow Me sequential and simultaneous ring call routing. WOW provides instructions in its user guides for activating and configuring these and other calling features provided in connection with the Accused Business Products.

41. Simultaneous ring allows a subscriber to designate additional phones to which received calls are simultaneously routed upon receipt of an inbound call to a subscriber. WOW provides instructions to its subscribers for activating simultaneous ring and for adding additional phone numbers receiving simultaneously routed calls. The additional numbers may correspond to addresses on an IP network or PSTN and are stored within a WOW switch to effect simultaneous call routing.

42. Centre One put WOW on notice of the existence of the Centre One patents as the specific claims of infringement presented in this Complaint via a letter sent to WOW on December 11, 2018. WOW has therefore had actual knowledge of Centre One's claims of patent infringement since at least that time, if not earlier. Despite being aware of Centre One's claims of patent infringement against it for over sixteen months, upon information and belief, WOW has taken no action to cease infringement.

COUNT I

PATENT INFRINGEMENT

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

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

44. On June 12, 2013, an *Inter Partes* Reexamination Certificate affirming the validity of the '668 Patent was duly and legally issued for "Method and Apparatus for Interfacing a

Public Switched Telephone Network and an Internet Protocol Network for Multi-Media Communication.” A true and correct copy of the ‘668 Patent with the Reexamination Certificate appended thereto is attached as Exhibit A to this Complaint and made a part hereof.

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

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

47. Defendant, without authority, consent, right, or license, makes, has made, uses, and sells the Accused Business Products which are provided over WOW’s HFC network and infrastructure comprising each of the components and functionality of the system claimed in at

least claim 3 of the '668 Patent. Defendant's offering for sale and selling the Accused Business Products therefore directly infringes, either literally or under the doctrine of equivalents, at least Claim 3 of the '668 Patent. Centre One expressly reserves the right to assert additional claims of the '668 Patent against Defendant.

48. Defendant's infringement has been willful from the time Defendant became aware of its infringement, which is December 11, 2018 at the latest. Despite being aware of Plaintiff's claims of patent infringement, WOW has taken no action to cease infringement. As such, Defendant has willfully infringed as its infringing actions are malicious, deliberate, consciously wrongful, and done in bad faith.

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

COUNT II

PATENT INFRINGEMENT

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

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

51. On September 16, 2013, an *Inter Partes* Reexamination Certificate affirming the validity of claim 14 of the '667 Patent was duly and legally issued for "Method and Apparatus for Interfacing a Public Switched Telephone Network and an Internet Protocol Network for Multi-Media Communication." A true and correct copy of the '667 Patent with the Reexamination Certificate appended thereto is attached as Exhibit B to this Complaint and made a part hereof.

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

53. The '667 Patent discloses and claims methods for routing real-time voice communications to a subscriber received from an Internet-connected device and delivering a message if the call is not picked up. The real-time communication may be routed from or to devices connected to either a PSTN or an IP network via conversion of voice signals to digital tones by a voice response unit and gateway communicatively connected to a switch. Received calls may be routed to each of a predesignated IP address and a PSTN number assigned to the subscriber. The communication may be received as a message in voice, e-mail, or facsimile form as determined by the subscriber.

54. Defendant, without authority, consent, right, or license, make, has made, use, and sell Accused Products which operate on WOW's network and infrastructure which comprise each of the components and functional steps of the method claimed in at least claim 14 of the '667 Patent. Defendant therefore directly infringes, either literally or under the doctrine of equivalents, claim 14 of the '667 Patent.

55. Defendant's infringement has been willful from the time Defendant became aware of its infringement, which is December 11, 2018 at the latest. Despite being aware of Plaintiff's claims of patent infringement, WOW has taken no action to cease infringement. As such, Defendant has willfully infringed as its infringing actions are malicious, deliberate, consciously wrongful, and done in bad faith.

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

COUNT III

PATENT INFRINGEMENT

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

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

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

59. Centre One is the owner of all right and title in the '982 Patent, including all rights to enforce and prosecute action for infringement of the '982 Patent and to collect damages for all relevant times against infringers of the '982 Patent. Accordingly, Centre One possesses the exclusive right and standing to prosecute the present action for infringement of the '982 Patent by Defendant.

60. The '982 Patent discloses and claims systems and methods that accommodate real-time voice communication between and among devices connected to an IP network and devices connected to a PSTN and that provide caller identification. The claimed systems and methods are implemented with a computer-controlled switch storing for a subscriber at least one destination address on each of a PSTN and an IP network to which calls may be routed.

Conversion of voice signals to digital tones, or vice versa, is performed to interface the two networks, along with call control and call routing functions such as address translation, admission control, bandwidth management, and zone management. Caller identification functions are performed upon routing of a call.

61. Defendant, without authority, consent, right, or license, make, has made, use, sell, and/or offer for sale the Accused Products which operate on WOW's network and infrastructure comprising the components and functionality of the system claimed in at least claim 1 of the '982 Patent. Defendant therefore directly infringes, either literally or under the doctrine of equivalents, at least claim 1 of the '982 Patent. Centre One expressly reserves the right to assert additional claims of the '982 Patent against Defendant.

62. Defendant's infringement has been willful from the time Defendant became aware of its infringement, which is December 11, 2018 at the latest. Despite being aware of Plaintiff's claims of patent infringement, WOW has taken no action to cease infringement. As such, Defendant has willfully infringed as its infringing actions are malicious, deliberate, consciously wrongful, and done in bad faith.

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

COUNT IV

PATENT INFRINGEMENT

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

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

65. 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." A true and correct copy of the '643 Patent is attached as Exhibit D to this Complaint and made a part hereof.

66. 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.

67. 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.

68. Defendant, without authority, consent, right, or license, make, has made, use, sell, and/or offer for sale the Accused Products which operate on WOW's network and infrastructure comprising the components and functional steps of the method claimed in at least claims 10 and 11 of the '643 Patent. Defendant therefore directly infringes, either literally or under the doctrine of equivalents, at least claims 10 and 11 of the '643 Patent. Centre One expressly reserves the right to assert additional claims of the '643 Patent against Defendant.

69. Defendant's infringement has been willful from the time Defendant became aware of its infringement, which is December 11, 2018 at the latest. Despite being aware of Plaintiff's claims of patent infringement, WOW has taken no action to cease infringement. As such, Defendant has willfully infringed as its infringing actions are malicious, deliberate, consciously wrongful, and done in bad faith.

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

COUNT V

PATENT INFRINGEMENT

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

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

72. On August 28, 2018, the '710 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.” A true and correct copy of the ‘710 Patent is attached as Exhibit E to this Complaint and made a part hereof.

73. Centre One is the owner of all right and title in the ‘710 Patent, including all rights to enforce and prosecute action for infringement of the ‘710 Patent and to collect damages for all relevant times against infringers of the ‘710 Patent. Accordingly, Centre One possesses the exclusive right and standing to prosecute the present action for infringement of the ‘710 Patent by Defendant.

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

75. Defendant, without authority, consent, right, or license, make, has made, use, and sell the Accused Products which operate on WOW’s networks and infrastructure which comprises the components and functionality of the system claimed in at least claim 1 of the ‘710 Patent. Defendant therefore directly infringe, either literally or under the doctrine of equivalents, at least claim 1 of the ‘710 Patent. Centre One expressly reserves the right to assert additional claims of the ‘710 Patent against Defendant.

76. Defendant’s infringement has been willful from the time Defendant became aware of its infringement, which is December 11, 2018 at the latest. Despite being aware of Plaintiff’s

claims of patent infringement, WOW has taken no action to cease infringement. As such, Defendant has willfully infringed as its infringing actions are malicious, deliberate, consciously wrongful, and done in bad faith.

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

PRAYER FOR RELIEF

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

- a. Judgment that one or more claims of the Asserted Patents have been directly infringed, either literally or under the doctrine of equivalents, by Defendant;
- b. Judgment that Defendant account for and pay to Plaintiff all damages to and costs incurred by Plaintiff because of Defendant's infringing activities and other conduct complained of herein, including enhanced damages as permitted by 35 U.S.C. § 284;
- c. That Plaintiff be granted pre-judgment and post-judgment interest on the damages caused by Defendant's infringing activities and other conduct complained of herein;
- d. That Defendant's infringement be found to be willful from the time Defendant became aware of its infringement, and that the Court award treble damages for the period of such willful infringement pursuant to 35 U.S.C. § 284.
- e. That the Court declare this an exceptional case and award Plaintiff its reasonable attorney's fees and costs in accordance with 35 U.S.C. § 285;
- f. That Defendant, its officers, agents, servants and employees, and those persons in active concert and participation therewith, be permanently enjoined from infringement of one or more claims of the Asserted Patents or, in the alternative, if the Court finds that an injunction is not warranted, Plaintiff requests an award of post-judgment royalty to compensate for future infringement; and

- g. That Plaintiff be granted such other and further relief as the Court may deem just and proper under the circumstances.

Dated: April 27, 2020

Respectfully submitted,

Of Counsel:

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