

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION**

BECK BRANCH LLC,

Plaintiff,

v.

COMCAST CORPORATION,

Defendant.

CIVIL ACTION NO 4:18-cv-4661

JURY TRIAL DEMANDED

ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

1. This is an action for patent infringement in which Beck Branch LLC makes the following allegations against Comcast Corporation.

PARTIES

2. Plaintiff Beck Branch LLC (“Plaintiff”) is a Texas limited liability company with its principal place of business at 101 E. Park Blvd, Suite 600, Plano, TX 75074.

3. On information and belief, Comcast Corporation (“Defendant” or “Comcast”) is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in One Comcast Center, 1701 John F. Kennedy Blvd., Philadelphia, Pennsylvania 19103.

JURISDICTION AND VENUE

4. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. Venue is proper in this District pursuant to 28 U.S.C. §1400(b) because acts of infringement are occurring in this District and Defendant has a regular and established place of business in this District. For instance, Defendant has a Comcast service center located at 22513 Tomball Pkwy, Suite 109, Houston, TX 77070, an XFINITY Store by Comcast at 2616 S Voss

Rd, Houston, TX 77057 and an XFINITY Store by Comcast located at 7844 W. Tidwell Ste 130, Houston, TX 77040. On information and belief, Defendant has other regular and established places of business in this District.

6. On information and belief, Defendant is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this Judicial District.

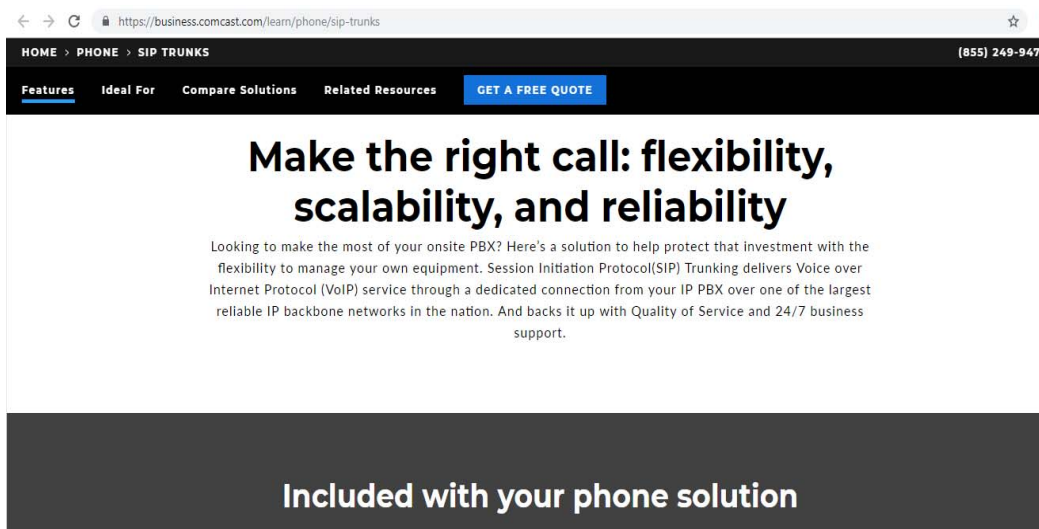
COUNT I
INFRINGEMENT OF U.S. PATENT NO. 6,873,620

7. Plaintiff is the owner of United States Patent No. 6,873,620 ("the '620 patent") entitled "Communication Server Including Virtual Gateway to Perform Protocol Conversion and Communication System Incorporating the Same." The '620 Patent issued on March 29, 2005. A true and correct copy of the '620 Patent is attached as Exhibit A.

8. Defendant owns, uses, operates, advertises, controls, sells, and otherwise provides products and/or services that infringe the '620 patent. The '620 patent provides, among other things, "A communication server acting as a gateway for the transmission of messages between two virtual devices communicating with networks implementing different protocols, said communication server comprising: a knowledge base comprising a registry identifying each physical device registered to deliver messages for transmission between said virtual devices and through said gateway, a logical table identifying each registered connection available between physical devices and protocol conversion information required for each registered connection to convert messages of one protocol to a different protocol and a dynamic database identifying the current status of each actual connection between physical devices; and a virtual gateway accessing said knowledge base for protocol conversion information upon receipt of a message to be transmitted between said virtual devices and converting the protocol of said message to a protocol compatible with the network to which said message is being sent wherein said virtual gateway updates the protocol conversion information and the current status information in said knowledge base based on message traffic therethrough."

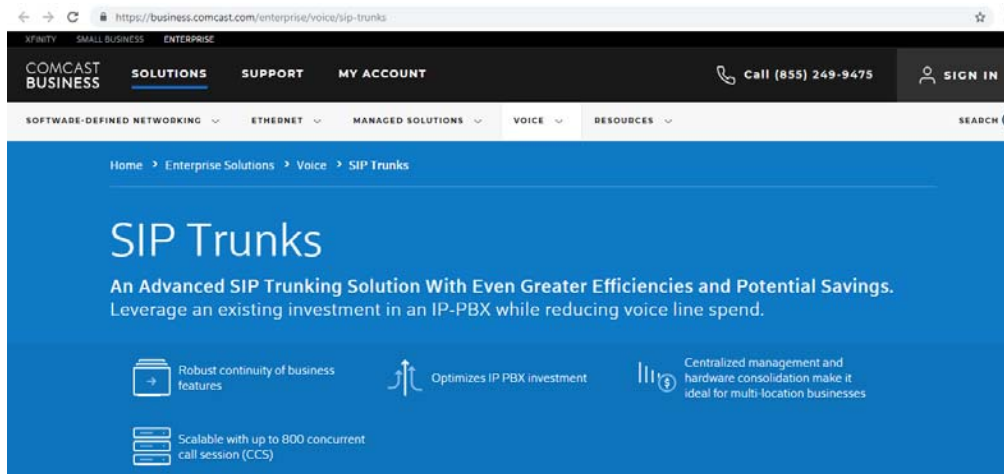
9. Defendant directly and/or through intermediaries, made, has made, used, imported, provided, supplied, distributed, sold, and/or offered for sale products and/or services that infringed one or more claims of the ‘620 patent, including at least Claim 23, in this district and elsewhere in the United States. By making, using, importing, offering for sale, and/or selling such products and services, and all like products and services, Defendant has injured Plaintiff and is thus liable for infringement of the ‘620 patent pursuant to 35 U.S.C. § 271.

10. Based on present information and belief, Comcast makes, uses, sells and/or offers for sale a communication server acting as a gateway for the transmission of messages between two virtual devices communicating with networks implementing different protocols. For example, Comcast provides Comcast Business SIP Trunks and Business VoiceEdge services for digital IP voice, video conferencing over the internet and IP-based applications such as Unified Communications using Voice over Internet Protocol (VoIP). Comcast Business SIP Trunks uses Internet Protocol (IP) Private Branch Exchange (PBX) for IP based communication. When a Session Initiation Protocol (SIP) Trunking based call is placed to a Public Switched Telephone Network (PSTN) using Comcast Business SIP Trunks, Business VoiceEdge (which when installed on a computer, smartphone or other computing device comprise one or more “virtual devices”), the call is routed via the Comcast access network and/or Hosted Cloud Private Branch Exchange and application server (“communication server”) to other devices in VoIP network. The messages between Comcast Business SIP Trunks and the Comcast access network and/or Hosted Cloud Private Branch Exchange are transmitted via the Comcast’s application server (“gateway”).



The screenshot shows a web browser window with the URL <https://business.comcast.com/learn/phone/sip-trunks>. The page has a dark navigation bar with the breadcrumb "HOME > PHONE > SIP TRUNKS" and a phone number "(855) 249-9477". Below the navigation bar are links for "Features", "Ideal For", "Compare Solutions", "Related Resources", and a blue "GET A FREE QUOTE" button. The main content area features a large heading: "Make the right call: flexibility, scalability, and reliability". Below the heading is a paragraph of text: "Looking to make the most of your onsite PBX? Here's a solution to help protect that investment with the flexibility to manage your own equipment. Session Initiation Protocol(SIP) Trunking delivers Voice over Internet Protocol (VoIP) service through a dedicated connection from your IP PBX over one of the largest reliable IP backbone networks in the nation. And backs it up with Quality of Service and 24/7 business support." At the bottom of the page is a dark grey banner with the text "Included with your phone solution" in white.

Source: <https://business.comcast.com/learn/phone/sip-trunks>



Home > Enterprise Solutions > Voice > SIP Trunks

SIP Trunks

An Advanced SIP Trunking Solution With Even Greater Efficiencies and Potential Savings. Leverage an existing investment in an IP-PBX while reducing voice line spend.

- Robust continuity of business features
- Optimizes IP PBX investment
- Centralized management and hardware consolidation make it ideal for multi-location businesses
- Scalable with up to 800 concurrent call session (CCS)

Source: <https://business.comcast.com/enterprise/voice/sip-trunks>



Product Overview

Comcast Business SIP Trunking is delivered over the largest VoIP network in the nation. The service provides dedicated bandwidth, with 100Mbps connection, to ensure streamlined voice and data traffic. The flexibility of Comcast SIP allows for multiple ways to configure your Enterprise – allowing for 6 CCS and up to 800. You configure the trunks however your Enterprise requires – inbound, outbound, 2-way, single or multiple trunk groups. You can also activate continuity features, like Overflow and Failover, to ensure that you will not miss a call due to call volume or an outage. Plus, it all comes backed by a Comcast Business Quality of Service (QoS) with Service Level Agreements, and expert 24/7/365 support.

Source: <https://business.comcast.com/enterprise/voice/sip-trunks>



Comcast Business Expands Comprehensive Voice Portfolio in Twin Cities with SIP Trunks

PRESS RELEASE

Full Voice and Unified Communications Portfolio of Hosted PBX, SIP Trunks, PRI Trunks and Business Voice now available to Businesses of all Sizes

[Download this article as a PDF >](#)

SAINT PAUL, MN – July 21, 2015 – **Comcast Business** today announced the availability of Comcast Business SIP Trunks in the Twin Cities region. Session Initiation Protocol (SIP) Trunking enables scalability and simplified, centralized management of voice services, and complements Comcast’s full voice portfolio, including cloud-based hosted PBX, PRI Trunks and Business Voice offerings. Now, Comcast Business can deliver voice and unified communications (UC) technologies to large enterprises, as well as providing voice solutions for small- and medium-sized organizations in the Twin Cities region.

According to a report by OneVoice, 65 percent of businesses are currently using SIP, and the number of SIP Trunking users is expected to grow more than five times by 2017.

Source: <https://business.comcast.com/resource-library/press-releases/2015/comcast-business-expands-comprehensive-voice-portfolio-in-twin-cities-with-sip-trunks>

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“Our next-generation voice portfolio is designed to provide every customer with a voice solution that meets the specific needs of their business – from high call quality and reliability to innovative features like a mobile app,” said Jeff Freyer regional vice president for Comcast Business. “The addition of SIP Trunks to the mix in the Twin Cities region will allow local businesses to benefit from the flexibility and cost savings that this technology provides while ensuring that their voice services are a reliable piece of their operations.”

With SIP Trunks added to its voice portfolio, Comcast Business can help customers transition to the latest voice technologies. Comcast Business Trunk Services now support both TDM or IP PBXs and further add value with advanced features for improving business continuity and disaster recovery. Businesses using Comcast voice solutions benefit from built-in quality of service and SLAs, ensuring high availability and call quality.

Comcast Business SIP Trunks is a key addition to the Comcast portfolio of voice services, which include:

- **Business Voice** – designed for small businesses
- **Business VoiceEdge** – cloud-based hosted PBX for mid-size businesses looking for UC features from a hosted platform
- **PRI Trunks** – enables customers to use their existing analog PBX and scale up as needed
- **SIP Trunks** – delivers a scalable, cost-effective solution for mid-sized and large companies with existing IP PBXs and multiple locations

About Comcast Corporation:
Comcast Corporation (Nasdaq: CMCSA, CMCSK) is a global media and technology company with two primary businesses, Comcast Cable and NBCUniversal. Comcast Cable is the nation’s largest video, high-speed Internet and phone provider to residential customers under the

Source: <https://business.comcast.com/resource-library/press-releases/2015/comcast-business-expands-comprehensive-voice-portfolio-in-twin-cities-with-sip-trunks>

What Is SIP Trunking and Why Is It Important?

SIP is an application-layer communications protocol for signaling and controlling multimedia communication sessions. SIP Trunking uses a packet switched model to establish connections between ports, and internet connections to link to IP-based phone systems. This is important because SIP delivers multiple modern features beyond POTS that can be an ideal next step for businesses looking to make their voice communications more digital, flexible and smart.

PRI uses a switched circuit to connect to analog or digital phones, but SIP Trunking allows digital packets delivering **digital IP voice, video, over the internet**, rather than through a TDM line.

How does SIP Trunking Work?

SIP doesn't provide any services; it works with other protocols, such as RTP (Real Time Transport) to deliver applications like unified communications. SIP Trunking uses distinct fields in order to deliver specific packets to different ports and provides the instructions to manage those digital packets.

Most SIP Trunk service providers set up Quality of Service (QoS) routing using either ports, IP or other applications, which allows them to dependably run high-priority applications and traffic with limited network capacity. QoS technologies provide differentiated handling and capacity allocation to specific flows in network traffic. This enables the network administrator to assign the order in which packets are handled.

SIP is an application-layer communications protocol for signaling and controlling multimedia communication sessions.

Source: https://cdn.wcdc.business.comcast.com/~media/business_comcast_com/PDFs/White%20Papers/CB-Trunking-For-Business-White-Paper.pdf?rev=f2692626-1d28-43fe-972d-5d5bf44bcfa5, page 2.

For example, perhaps **voice** is the most important application to your organization because conference calls make it possible for a distributed workforce to collaborate. As part of SIP Trunking, your service provider will configure those packets as a priority to ensure audible voice communications even with increased internet traffic. Each application or packet will then be provided an adequate amount of bandwidth.

Working with a SIP Trunk service provider, you also can configure a solution for more advanced SIP services, such as routing calls appropriately during an outage to avoid missed calls. Legacy trunking services have limited business continuity capabilities and may not be able to complete calls during disasters like a power outage. Service providers that deliver PRI over IP vs. TDM, can provide business continuity solutions to reroute the calls. SIP Trunks provide multiple rerouting options to **another endpoint without sacrificing call quality or integrity**.

VoIP vs. SIP: What's the Difference?

VoIP lets you **make and/or receive phone calls over internet protocol (IP)**. SIP Trunking enables calling based on providing instructions through other various protocol communications using VoIP. SIP can transmit information between two or more endpoints, so it's designed for video conferencing, voice calling, and IP-based applications such as unified communications. SIP is also standardized by the [Internet Engineering Task Force \(IETF\)](#), which makes configuring new solutions and endpoints easier.

Bandwidth is a key component when determining the amount of traffic a business expects to traverse their SIP service. As a result, companies that implement a SIP Trunk solution must consider **how they will use their internet capacity**. Organizations also need to anticipate how much data, video, and other real-time applications they will use so they can obtain enough bandwidth and throughput for a positive employee and customer experience. SIP service providers typically allow their customers to scale based on their business requirements.

What Does SIP Trunking Require?

For SIP Trunking to work, four elements must be in place:

SIP can transmit information between two or more endpoints, so it's designed for video conferencing, voice calling, and IP-based applications such as unified communications.

Source: https://cdn.wcdc.business.comcast.com/~media/business_comcast_com/PDFs/White%20Papers/CB-Trunking-For-Business-White-Paper.pdf?rev=f2692626-1d28-43fe-972d-5d5bf44bcfa5, page 3.

← → ↻ <https://cbcommunity.comcast.com/browse-all/details/comcast-business-voiceedge-unified-communications-built-for-the-cloud>

Contributed By



Eric Hyman
Director of Product Marketing at Comcast
[View Profile](#)

Comcast Business VoiceEdge™: Unified Communications Built for the Cloud

November 22, 2017

Unified Communications (UC) has changed the way business is conducted. It helps improve collaboration, decision-making and productivity, and lets companies focus on managing their business instead of their communications infrastructure.

Today's UC systems are a big step forward from the early days of UC. No longer tied to hardware deployed on your premise, newer UC solutions like Comcast Business VoiceEdge™ are cloud-based and mobile. Business communications can be routed through an easily downloadable desktop app providing one-click integration with common business productivity tools like customer relationship management, Microsoft Skype for Business, Office 365 and Google Chrome. In addition, from Google Play or App Store, an end-user can download the mobile application from Comcast to have desk phone features and functions on a cell phone.

Businesses of all shapes and sizes are using Comcast Business VoiceEdge™, the cloud-based virtual PBX service that works where you work — office, home or on the road. Comcast Business VoiceEdge™ allows your employees to stay connected with customers and each other from anywhere for increased productivity and an improved voice communications experience.

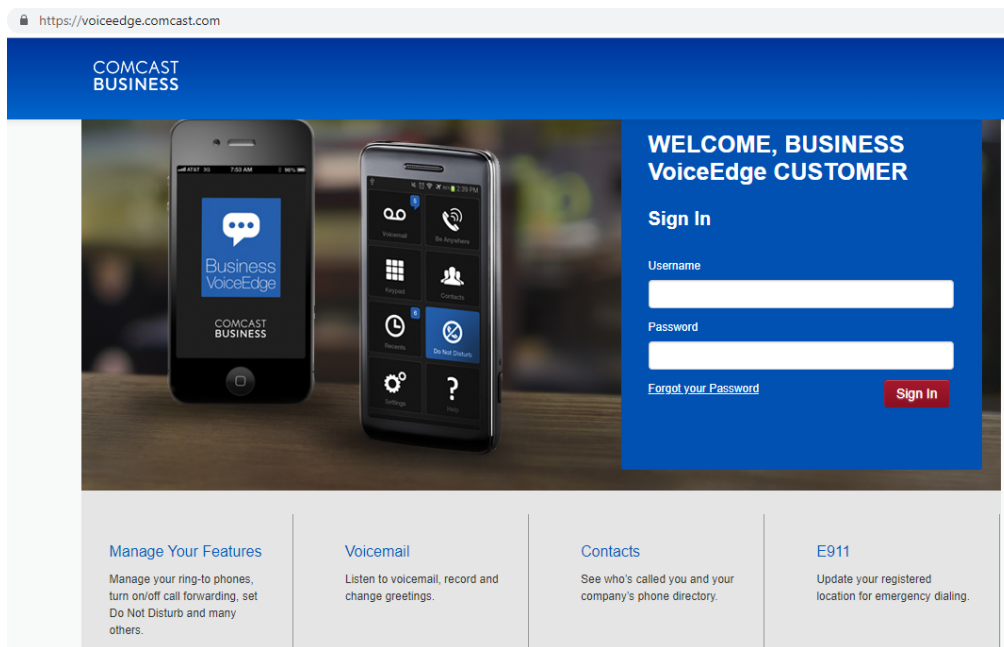
Additionally, Comcast Business VoiceEdge™ works with the business applications employees rely on the most: text with readable voicemail, email with interoperability with Office 365 or cell phone access to your telephone directory, and desktop call features delivered via a mobile app. Here are a few examples.

Crystal Clear Voice—All the Time

Members working at Tigerlabs, a Princeton, N.J., co-working community, originally relied on their cell phones to make business calls. Now, Tigerlabs offers their community an important amenity thanks to Comcast Business VoiceEdge™: HD-quality IP

Source: <https://cbcommunity.comcast.com/browse-all/details/comcast-business-voiceedge-unified-communications-built-for-the-cloud>

Further, Comcast Business VoiceEdge includes a web portal for its users. User uses web portal (“virtual devices”) to sign in and set up a video conferencing over the internet and/or IP-based applications such as Unified Communications using Voice over Internet Protocol (VoIP).



Source: <https://voicedge.comcast.com/>

VoiceEdge Online Tech Admin Portal

The VoiceEdge Tech Admin portal is used to access all End User Profile and Feature settings and to modify Group settings (i.e. Hunt Group, Auto Attendant). To access the Tech Admin portal, log on to business.comcast.com/bveportal and provide your Enterprise Admin or Tech Admin username and password. The Enterprise Admin and Tech Admin have the same capabilities but the Enterprise Admin can implement these activities for multiple/all sites in the Enterprise.

Once logged in, the Tech Admin portal will display the User Account area for your group/business. You can access all the users in your business and do the following:



- Set up users Voicemail to Email
- Set up and activate users features (Remote Office, Be Anywhere and Call Forwarding)
- Access Company Directory
- Access Help Page
- View users Call History
- Change Login Ids, passwords and directory names
- Reset User Voicemail, Feature Portal/Toolbar passwords
- Access Voicemails and Voicemail settings for Standalone Voicemail boxes

Source: https://cdn.wcdc.business.comcast.com/cdn.wcdc.business.comcast.com/help-and-support/~media/business_comcast_com/PDFs/getstarted/Technical%20Administrator%20Guides/bc_bve_por_te_chadminguide_v5_rev_8-15.pdf, page 4.

The Tech Admin can also access the Group Account area of the Tech Admin portal. This area will allow the Tech Admin to modify the following:



- Hunt Group settings
- Call Queue settings
- Create and modify Time Schedules and Holiday Schedules
- Control all Music on Hold settings
- Access Call Detail Records
- Allow or deny users access to International Long distance

The Tech Admin can also change Users extension numbers and usernames (along with re-setting passwords) using the User Profile tab. This feature will help when new employees start at your business. If you change a User's username, you will need to inform the User of the new username (and password) so that they can access their Web Portal, Toolbar and Mobile App. Changing a User's username will change the login id, not the directory name or calling line name of the user.

To learn more about Tech Admin portal features and functionality, please visit business.comcast.com/getstarted and register for a Tech Admin interactive session.

VoiceEdge End User Portal

The VoiceEdge Feature portal can be used to setup and activate individual VoiceEdge features. Each user can login at business.comcast.com/bveportal and use his/her Feature Portal/Toolbar username and password.

The Feature Portal provides the ability to:



- Listen to and delete your Voicemails
- Set up your Voicemail to Email
- Record and manage Greetings
- Access your Company Directory
- Access your Call History and Distribution Lists
- Set up and activate features like Remote Office, Be Anywhere and Call Forwarding
- Access Toolbar, Comcast Softphone and Reception Console Downloads
- Access a Help screen that defines features
- Modify your User Profile
- Reset your own Voicemail, Feature Portal/Toolbar passwords

Source: https://cdn.wcdc.business.comcast.com/cdn.wcdc.business.comcast.com/help-and-support/~media/business_comcast_com/PDFs/getstarted/Technical%20Administrator%20Guides/bc_bve_por_te_chadminguide_v5_rev_8-15.pdf, page 5.

11. Based on present information and belief, Comcast makes, uses, sells and/or offers for sale a knowledge base comprising a registry identifying each physical device registered to deliver messages for transmission between said virtual devices and through said gateway. Upon information and belief, Comcast and/or its customers utilize Comcast Business SIP Trunks, Business VoiceEdge for SIP Trunking functionality which comprises a knowledge base registry to identify the registered physical devices. Further, the Comcast access network transmit messages such as digital IP voice, video conferencing from Comcast Business SIP Trunks to other devices in VoIP Network using Comcast's application server as a gateway.

Source: <https://business.comcast.com/enterprise/voice/sip-trunks>

Source: <https://business.comcast.com/enterprise/voice/sip-trunks>

Further, Comcast Business SIP Trunks, Business VoiceEdge also maintains a knowledge base comprising a registry identifying the phones and devices within the customers’ VoIP network.

12. Based on information and belief, Comcast makes, uses, sells and/or offers for sale a logical table identifying each registered connection available between physical devices and protocol conversion information required for each registered connection to convert messages of one protocol to a different protocol. Upon information and belief, Comcast and/or its customers utilize Comcast Business SIP Trunks for SIP Trunking functionality. SIP Trunking functionality

comprises a logical table to identify the type of connection and selects Comcast's Application server acting as a gateway to convert messages from Session Initiation Protocol (SIP) to PSTN.

13. Based on present information and belief, Comcast makes, uses, sells and/or offers for sale a dynamic database identifying the current status of each actual connection between physical devices. Upon information and belief, Comcast and/or its customers utilize Comcast Business SIP Trunks, Business VoiceEdge for SIP Trunking functionality which uses cloud Internet Protocol (IP) Private Branch Exchange (PBX). Further, Comcast Business SIP Trunks, Business VoiceEdge comprises a dynamic database to identify the current status of connection between the physical devices (including IP phones, installation computers and the physical PSTN terminals).

14. Based on present information and belief, Comcast makes, uses, sells and/or offers for sale a virtual gateway accessing said knowledge base for protocol conversion information upon receipt of a message to be transmitted between said virtual devices. For example, Comcast and/or its customers utilize Comcast Business SIP Trunks, Business VoiceEdge for SIP Trunking functionality comprising a Comcast access network and/or Hosted Cloud PBX ("virtual gateway"). SIP Trunking functionality uses the Application server acting as a gateway for protocol conversion upon receiving the message to be transmitted from Comcast Business SIP Trunks network to the PSTN.

15. Based on present information and belief, Comcast makes, uses, sells and/or offers for sale a virtual gateway converting the protocol of said message to a protocol compatible with the network to which said message is being sent. For example, Comcast and/or its customers utilize Comcast Business SIP Trunks, Business VoiceEdge for SIP Trunking functionality comprising a Comcast access network and/or Hosted Cloud PBX ("virtual gateway"). Comcast's Application server converts the protocol of the messages sent from Comcast Business SIP Trunks to the protocol used within the PSTN.

16. Based on present information and belief, Comcast makes, uses, sells and/or offers for sale a virtual gateway wherein said virtual gateway updates the protocol conversion information and the current status information in said knowledge base based on message traffic there through. For example, Comcast and/or its customers utilize Comcast Business SIP Trunks, Business VoiceEdge for SIP Trunking functionality comprising a Comcast access network and/or Hosted Cloud Private Branch Exchange ("virtual gateway"). Comcast access network

and/or Hosted Cloud PBX accesses and updates information stored in the registry based on the communicating virtual devices.

17. In the alternative, because the manner of use by Defendant differs in no substantial way from language of the claims, if Defendant is not found to literally infringe, Defendant infringes under the doctrine of equivalents.

18. Defendant's aforesaid activities have been without authority and/or license from Plaintiff.

19. In addition to what is required for pleadings in patent cases, and to the extent any marking was required by 35 U.S.C. § 287, Plaintiff and all predecessors in interest to the '620 Patent complied with all marking requirements under 35 U.S.C. § 287.

20. Plaintiff is entitled to recover from Defendant the damages sustained by Plaintiff as a result of the Defendant's wrongful acts in an amount subject to proof at trial, 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 this Court enter:

1. A judgment in favor of Plaintiff that Defendant has infringed the '620 Patent;
2. A judgment and order requiring Defendant to pay Plaintiff its damages, costs, expenses, and prejudgment and post-judgment interest for Defendant's infringement of the '620 Patent as provided under 35 U.S.C. § 284;
3. An award to Plaintiff for enhanced damages resulting from the knowing, deliberate, and willful nature of Defendant's prohibited conduct with notice being made at least as early as the date of the filing of this Complaint, as provided under 35 U.S.C. § 284;
4. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees; and
5. Any and all other relief to which Plaintiff may show itself to be entitled.

DEMAND FOR JURY TRIAL

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Respectfully Submitted,

BECK BRANCH LLC

/s/ Papool S. Chaudhari

Dated: December 10, 2018

By: _____

Papool S. Chaudhari

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