

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

BECK BRANCH, LLC,

Plaintiff,

v.

RINGCENTRAL, INC.,

Defendant.

CIVIL ACTION NO.

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 RingCentral, Inc.

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, RingCentral, Inc. (“Defendant” or “RingCentral”) is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 20 Davis Dr., Belmont, CA 94002.

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 under 28 U.S.C. §§ 1391(c) and 1400(b). RingCentral is a Delaware corporation, and, thus, resides in Delaware for purposes of venue.

6. Defendant is subject to this Court’s specific and general personal jurisdiction by virtue of the fact that Defendant is a Delaware corporation.

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, RingCentral 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, RingCentral provides RingCentral Phone and/or RingCentral Office application for

unified business communications platform based on cloud IP Public Branch Exchange (PBX) for IP based communication. When a SIP Trunking based call is placed to a Public Switched Telephone Network (PSTN) using RingCentral Phone and/or RingCentral Office application (which when installed on a computer, smartphone or other computing device comprise one or more “virtual devices”), the call is routed via the cloud IP PBX system and PSTN gateway included in the RingCentral for Unified Communication Server (“communication server”). The messages between RingCentral Phone and/or RingCentral Office application and the PSTN are transmitted via the cloud IP PBX and PSTN gateway.

What is VoIP

A brief introduction to Voice over Internet Protocol (VoIP).

Voice over Internet Protocol or VoIP refers to the technology that allows us to make and receive phone calls over the Internet in real time. It is a set of protocols working together to deliver internet telephony functions similar to regular phone lines or PSTN. The difference is that it provides flexibility and mobility that is not possible with traditional telephony. By delivering voice calling functions over the Internet, it allows anyone to use VoIP from anywhere via their laptops, desktops, or smart devices.

A virtual phone service for business.

RingCentral VoIP is part of a secure and reliable virtual phone service that also leverages cloud PBX technology. Aside from voice calls, you also get online meetings, SMS, team messaging, and advanced call management features that can help your organization communicate better. More than just a replacement for traditional landlines, RingCentral offers a complete cloud communications platform.

Source: <https://www.ringcentral.com/virtual-phone-service.html>



Overview

How it works

Plans & Pricing

Features

Phones & Headsets

FAQs

Resources

Benefits of the RingCentral Phone app:

- Multiple email and login options let you use your corporate email, Gmail™, or RingCentral credentials for quick access without memorizing more passwords.
- Plug in a headset and use the RingCentral Phone app to call, text, and fax from your computer.
- HD voice delivers crisp, clear sound.*
- Secure voice prevents unauthorized interception of audio streams.
- Easily start an audio conference or online meeting with one click

[RingCentral Phone App Demo](#)

This section includes a navigation menu on the left, a list of benefits in the center, and two video thumbnails on the right. The video thumbnails are labeled 'RingCentral Phone App Demo'.

Source: <https://www.ringcentral.com/office/features/desktop-apps/overview.html>

US

[Request a Quote](#) [Join a meeting](#) [Support](#) [Login](#)

RingCentral SMALL BUSINESS ENTERPRISE

Sales: (877) 651-0621 [Chat](#)

Products Pricing Resources About Us

Connect easily to customers with RingCentral Office®

- Cloud phone
- Video conferencing
- Team messaging
- Online fax >

[View Demo](#) [Free Trial](#) [Contact Us](#)

This screenshot shows the RingCentral website's navigation and main content area. It features a blue header with the RingCentral logo and navigation links. The main content area has a white background with a large heading and a list of features. At the bottom, there are three buttons: 'View Demo', 'Free Trial', and 'Contact Us'. A laptop and smartphone displaying the RingCentral interface are shown on the right side of the main content area.

Source: <https://www.ringcentral.com/office/how-it-works.html>

All-inclusive features in one plan

No separate bills for different functionalities

RingCentral's VoIP is part of an all-inclusive virtual phone system that includes voice, fax, text, conferencing and more. With transparent plans and pricing, you can expect no surprises on your next bill. No hidden fees or extra premium charges for additional features.

VoIP with Virtual PBX

Get advanced routing capabilities through a cloud-based PBX system. This way, all incoming calls are automatically routed to the right person or department, giving your business a more professional image.

Premium inbound call management features

Aside from advanced routing capabilities, RingCentral also offers different call management features to help you communicate more effectively. Customize how incoming calls are handled during and after business hours, set up a dial-by-name directory, and use a multi-level auto attendant. All this makes it easier for callers to reach your business.

Customizable user experience

End-users are also able to personalize how they receive their calls, which includes customizing call screening to identify callers, forwarding calls to multiple phone numbers simultaneously or chronologically, and setting up notifications for missed calls, SMS, voicemail, and fax.



Source: <https://www.ringcentral.com/office/features/desktop-apps/overview.html>

What are the advantages and disadvantages of VoIP and virtual phone services against traditional telephony?

Traditional phone services	VS	VoIP
<ul style="list-style-type: none">• Pay thousands of dollars for on-site hardware.• No free calls-long distance and international calls are costly and paid per minute.• Business features come with extra cost.• Requires additional physical cable lines for expansion.• Can remain active during outages.		<ul style="list-style-type: none">• No expensive hardware required, so you save money up front.• Free VoIP calls-long distance calls, if not entirely free, only require nominal fees.• Comes with standard business features like call forwarding, voicemail, and others.• Additional extensions require a few clicks or taps on admin control panel.• Needs the internet to deliver service.

Source: <https://www.ringcentral.com/office/features/desktop-apps/overview.html>

Overview

RingCentral VoIP (voice over internet protocol) is part of a secure, reliable cloud communications platform that eliminates the need for on-premise PBX hardware. With mobile apps, online meetings, and business SMS, it's more than a phone system, it's comprehensive hosted business communications at its best. Manage all of your business communications with your computer or mobile device from any location—there's no additional hardware necessary. Best of all, RingCentral provides simplified billing, free onboarding services, and 24/7 customer support as part of your service plan.

Source: <https://www.ringcentral.com/office/features/voip/overview.html>

Benefits of VoIP



Get secure VoIP service with optimum reliability

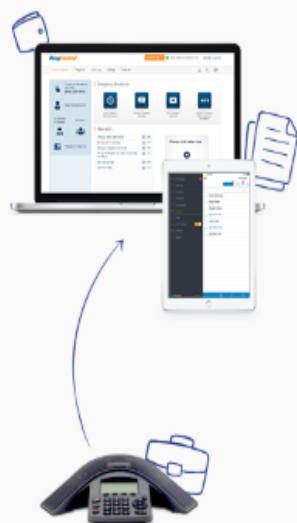
RingCentral VoIP service is encrypted with secure voice between endpoints on the network—including desk phones, RingCentral for Desktop, and, with VoIP calling enabled, the RingCentral mobile app.

Why does this matter for your business? Secure VoIP service ensures that your business communications are protected from service interruption threats such as natural disasters, power outages, and malicious attacks. Without a secure, reliable VoIP network, downtime can have dire consequences for your bottom line. For example, with a traditional PBX, a simple power outage could result in lost customers or prospects who are attempting to call your business, which ultimately results in loss of profits.

RingCentral provides businesses with carrier-grade reliability and security, with Tier 1 network centers and 24/7 monitoring to ensure your service isn't disrupted. RingCentral's geographically dispersed data centers provide redundant layers of security—at the perimeter, at the service delivery layer, and with SSL-encoded web applications.

To ensure the best possible call quality on all of your phone calls, RingCentral offers customers the tools to check your internet connection speed as well as instructions on how to configure your router properly. Keep in mind that several key factors can impact the quality of service (QoS)—including routers that prioritize voice traffic over lower-priority traffic, such as large downloads. To see if your current bandwidth can support VoIP, test it for free [here](#).

Source: <https://www.ringcentral.com/office/features/voip/overview.html>



All-inclusive pricing simplifies billing and eliminates hidden costs.

You can expect all-inclusive pricing and one consolidated bill from RingCentral—eliminating complex management and billing associated with multiple vendors.

RingCentral's VoIP hosting service is part of an all-inclusive service, which means you get voice, fax, text, audio conferencing, online meetings—plus mobile and desktop apps in one plan. With transparent plans and pricing, you know exactly what you are paying for—there are no hidden fees or charges beneath the surface. In addition to offering a robust feature set, RingCentral provides unlimited long-distance calling in the US and Canada, and toll-free minutes are included in all RingCentral Office plans.

Traditional on-premise PBX systems have hidden costs that are difficult to estimate up front. Besides the obvious price tags on PBX hardware, software licensing, and new telephones, these are a few hidden PBX costs to consider:

- Maintenance contracts
- PBX replacement and upgrade parts
- Cost of connecting multiple locations
- Telecom charges for local, long-distance, international calling,* or toll-free calls
- Added costs for standalone services, such as online faxing or audio conferencing

Learn more about calculating the **real cost** of a business phone system and how cloud VoIP services compare with other types of telephony.

Source: <https://www.ringcentral.com/office/features/voip/overview.html>

How it works

The screenshot shows the RingCentral Desktop application interface. On the left, there's a sidebar with 'My Contacts' and a search bar. The main area displays a contact list for 'Smith, John' with various phone numbers categorized as Home, Business, Mobile, etc. On the right, there's a settings panel with tabs for 'General', 'Incoming', and 'Outgoing'. The 'General' tab is active, showing options for 'Direct dial', 'RingOut', 'Local dialing', and 'Outbound caller ID'.

Integration with Microsoft Outlook²
Make calls, send texts and faxes to your contacts directly from within Outlook.

Advanced settings
Optimize RingCentral for Desktop as your day-to-day communications hub for calls, texts, faxing, conferencing, and online meetings. Easily set your outbound caller ID for both your outbound calls and faxes.

System requirements

Windows:

- Windows[®] 7 or later operating system
- PC with a 2 GHz processor (32/64 bit)
- Minimum of 1 GB of RAM
- 300 MB of hard drive space

Macintosh:

- Mac OS X[®] 10.8 or later
- System with Intel[®] processor
- Minimum of 1 GB of RAM
- 300 MB of hard drive space

Head-up display (HUD)
View your colleagues' real-time availability. Answer and transfer an incoming call, add a colleague to a current call, or chat with a colleague directly. Pick up a call on behalf of your colleagues with permission.

Call monitoring
Monitor calls in real time, whisper to your employees, enter into conversations, and even take over calls.

Source: https://netstorage.ringcentral.com/datasheets/spartan_datasheet.pdf, page 3

The advertisement features the RingCentral logo at the top left, with navigation links for 'SMALL BUSINESS' and 'ENTERPRISE'. Below the logo, it says 'RINGCENTRAL APP FOR MOBILE' and 'Unified business communications in the palm of your hand'. There are buttons for 'Download on the App Store' and 'GET IT ON Google Play'. A hand is shown holding a smartphone displaying the app interface. Below this, the text reads 'Integrated communications; anytime, anywhere' and 'The RingCentral mobile app provides an intuitive, unified experience that lets you call, message, and meet wherever you are. Compatible with company-owned devices or bring-your-own-device smartphones, RingCentral's unified application enables you to seamlessly make calls, check voicemail messages, and connect and collaborate with teams through integrated team messaging and online meetings.' At the bottom, it says 'Less app switching, less noise' and lists three features: 'Call' (Cloud PBX with enterprise-grade reliability and quality), 'Message' (Team messaging, tasks, and unlimited file sharing), and 'Meet' (Video meetings with advanced screen sharing and collaboration features).

Source: <https://www.ringcentral.com/unified-communications/mobile-app.html>

Carry your business anywhere you go

Dropping, missing, or incorrectly routing a call can mean decreased team efficiency, lost revenue, and a missed opportunity to gain and retain customer trust. In a single tap, RingCentral allows you to connect to team members, customers, and vendors easier than ever before.

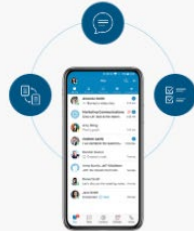
- Always be reachable with a single business identity for HD VoIP calling, SMS, and online fax.
- Customize settings and notifications, such as office hours and ringtones.
- Route calls with advanced call controls, like call flip, switch, transfer, and park.
- Seamlessly make and receive calls with your carrier minutes, Wi-Fi, or cellular data without ever dropping a call.



Team collaboration: messaging with file sharing and shared tasks

Stay up to date and productive while on the go. RingCentral's built-in team messaging and collaboration capabilities streamlines your business workflows. This means fewer meetings, quicker decisions, and more productivity.

- Chat with colleagues and clients in real time.
- Link and file sharing with no size or storage limits.
- Create teams for projects, specific topics, or departments.
- Free and simple guest sign-ups.

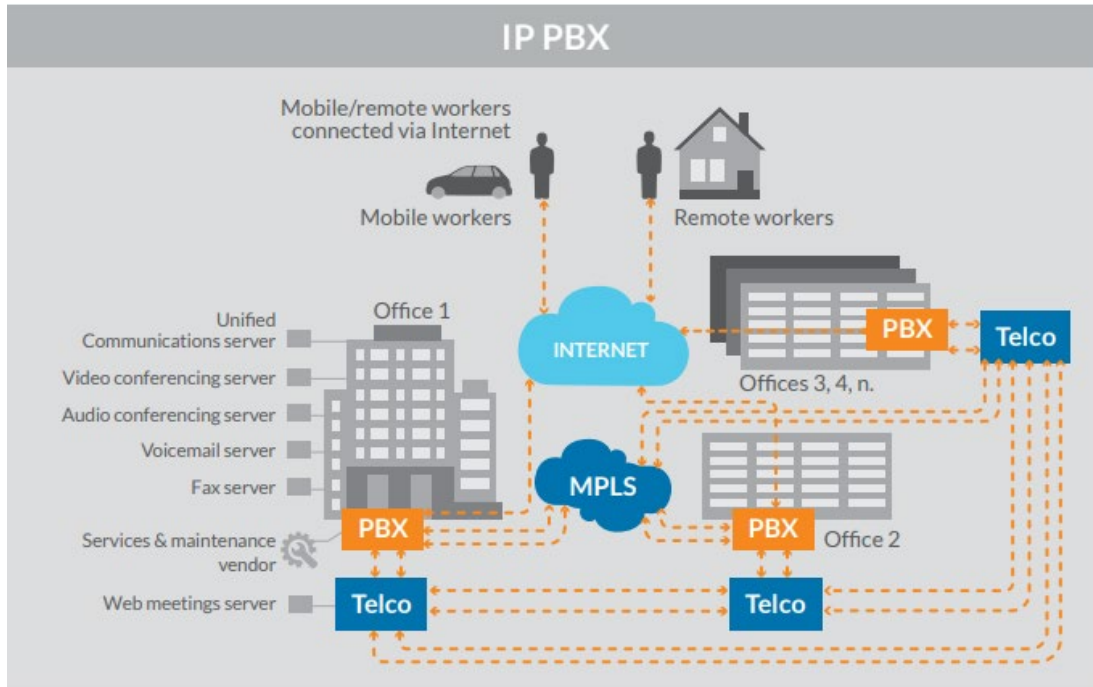


Online meetings: a complete video collaboration solution

Increase customer engagement and drive productivity with RingCentral's powerful audio and video collaboration capabilities right on your mobile device. Connect to audio with smartphone data or your mobile carrier. Start or join a virtual meeting in a single tap from anywhere in the world.



Source: <https://www.ringcentral.com/unified-communications/mobile-app.html>



Source: https://netstorage.ringcentral.com/documents/network_benefits_cloud_voip.pdf, page 4

Anatomy of a cloud telecom system

First, let's look at the fundamental differences between a cloud phone system and an on-premise system—either traditional PBX or IP PBX. Figure 1 depicts how these telephony networks/systems commonly appear in many companies and illustrates who is responsible for the hardware and software in each case, as well as the respective connectivity requirements for businesses with multiple locations and remote workforces.

Note that with an on-premise IP PBX, calls can go out through a traditional telco provider (PSTN) such as a provider you had for years, over the Internet (VoIP) with SIP trunking, or a combination of both. These traditional connections can be regular copper lines or a T1 with PRI circuits. MPLS typically provides connectivity between locations and the respective on-premise IP PBXs.

A cloud phone system moves all of the hardware and software—as well as the responsibility for managing, maintaining, and updating it—into the cloud. This eliminates the complexity of managing the relationships with the telco providers, PBX vendors, service and maintenance providers, as well as the need to have onsite IT staff with specialized telephony knowledge. The cloud model also eliminates the need for costly MPLS or other business exchange lines between locations, while enabling call transferring and remote administration. Finally, it seamlessly integrates not only remote and mobile workers but also critical cloud-based business applications—from Salesforce to Box to NetSuite—into the business phone system.

Activate Win

Source: https://netstorage.ringcentral.com/documents/network_benefits_cloud_voip.pdf, page 3

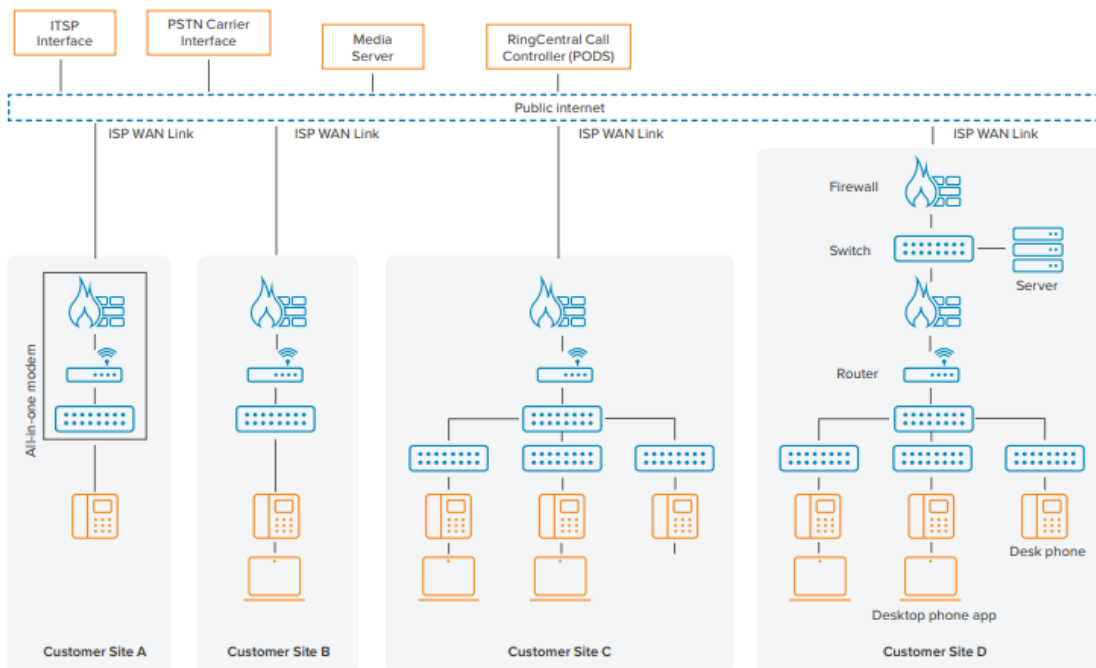


Figure 1. RingCentral Unified Communications Reference Architecture

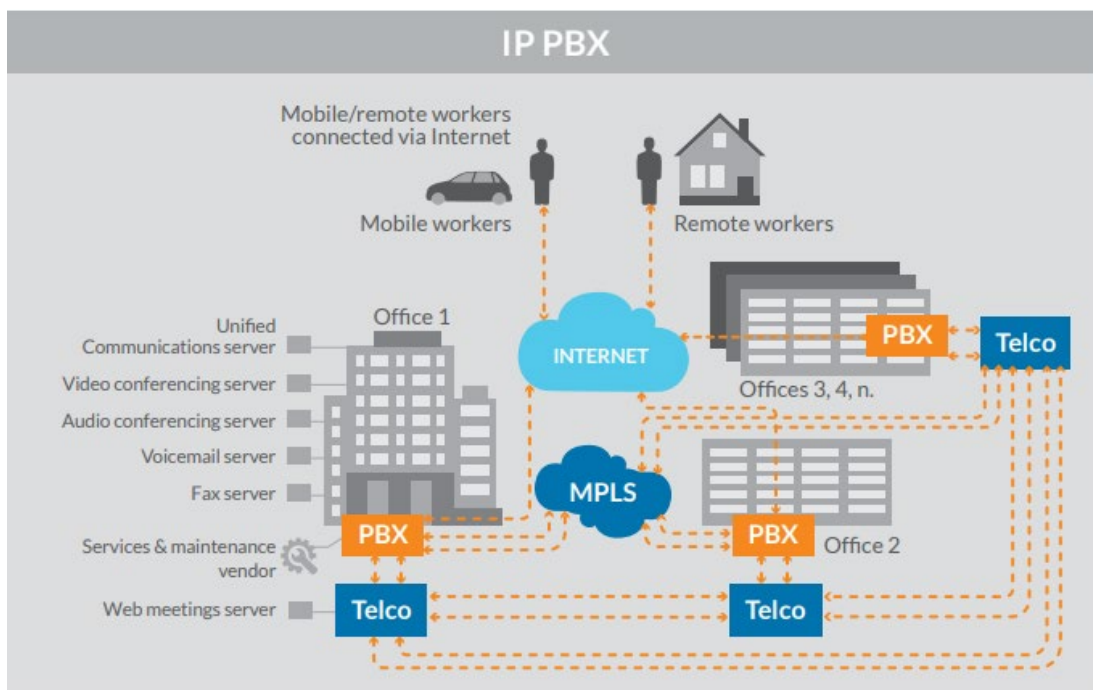
Source: https://netstorage.ringcentral.com/guides/network_extended.pdf, page 5

Voice and video calls can be made between phones at a single customer site via the internet, between phones at different customer sites via the internet, involve a Media Server (e.g., for conference calls or to store/retrieve voice mail), or calls may connect to an ITSP or PSTN gateway. The Call Controller registers the phones and handles call orchestration between the various components. To support these types of calls:

- Call control connectivity must exist between the local VoIP LAN at the customer site, the internet, and the RingCentral Call Controller®.
- Media path connectivity must exist between the VoIP LAN at the customer site, the internet, the Media Server, and to the ITSP and PSTN gateway.

Source: https://netstorage.ringcentral.com/guides/network_extended.pdf, page 5

11. Based on present information and belief, RingCentral 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, RingCentral and/or its customers utilize a RingCentral Phone and/or RingCentral Office application for SIP Trunking functionality which comprises a knowledge base registry to identify the registered physical devices. Further, the server uses cloud IP PBX to transmit messages from RingCentral software to the PSTN through PSTN gateway.



Source: https://netstorage.ringcentral.com/documents/network_benefits_cloud_voip.pdf, page 4

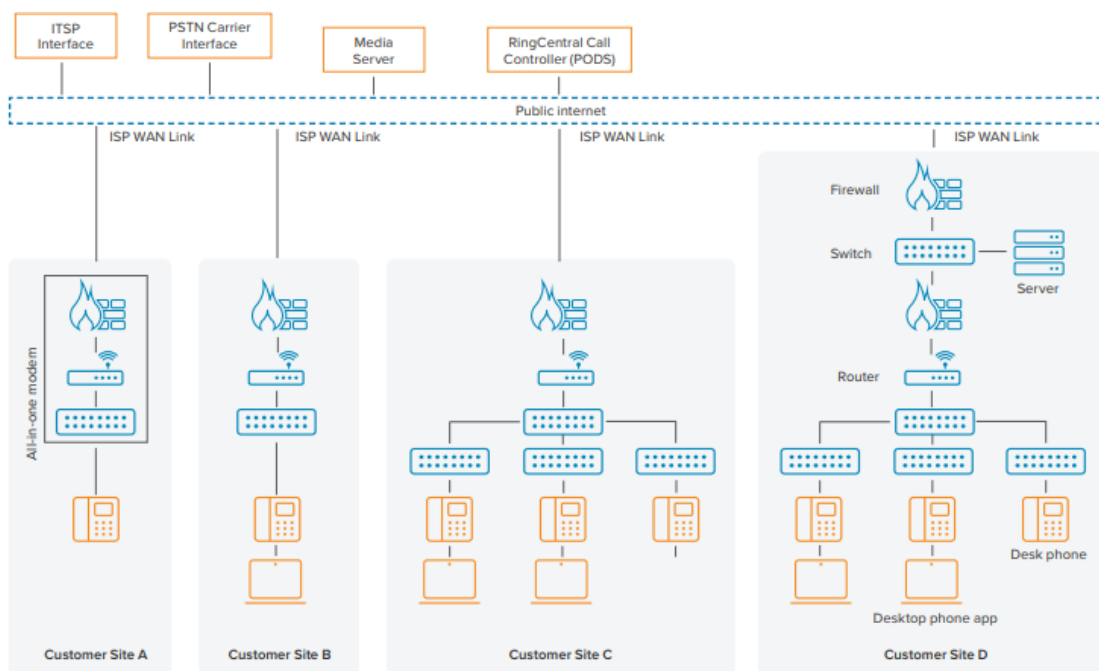


Figure 1. RingCentral Unified Communications Reference Architecture

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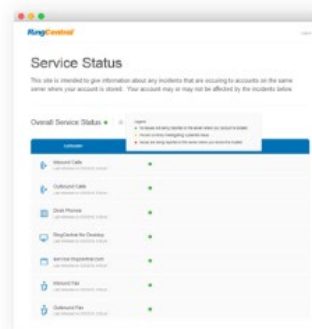
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Source: https://netstorage.ringcentral.com/guides/network_extended.pdf, page 5

Real-time system information

Our self-service portal allows users to log in 24/7 to check the overall health of the RingCentral system. You can confirm in real time whether your communications services are up and running and monitor the resolution status of system-wide problems.



Source: <https://www.ringcentral.com/technology/reliability.html>

Phones & Devices - Access Phones & Devices Section

The **Phones & Devices** section on the RingCentral Online account provides you a view of all the Desk phones, RingCentral Phone, and other devices associated with your RingCentral account. It is where you can configure, add or delete phones on your account.

Account Administrators can access this section by [logging in to the RingCentral Online account](#), then going to **Admin Portal > Phone System > Phones & Devices**.

User Phones						
User Phones		Common Area Phones	Paging Devices	Shared Lines	Unassigned	
Search User Phones		Status	Device	Sites	+ Add Device	
Status	Device	Site	Assigned	Phone Number	Serial No.	
✖	Sophee	San Jose	Johnny Depp	(650) 437-5899	N/A	
⊖	Andrew White Polycom VVX-410 Colo...	MagicLand	Andrew White	(913) 228-1373	N/A	Check Progress
✖	Brianne Blander Softphone	SoCal (Don...	Brianne Blander	(323) 388-4137	N/A	
✖	Daven Ten RingCentral for Desktop	Tranquility ...	Daven Ten	(916) 836-8239	LPRC8172	
✖	Enid Blythe Existing device	Denver	Enid Blythe	(916) 836-3599	N/A	Setup & Provision

Source: https://success.ringcentral.com/articles/RC_Knowledge_Article/Phones-Overview

Further, RingCentral Software also maintains a knowledge base comprising a registry identifying the phones and devices within the customers’ network.

12. Based on information and belief, RingCentral 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, RingCentral and/or its customers utilize RingCentral Phone and/or RingCentral Office application for SIP Trunking functionality which comprises a logical table to identify the type of connection and selects PSTN gateway to convert messages from Session Initiation Protocol (SIP) to PSTN.

13. Based on present information and belief, RingCentral 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, RingCentral and/or its customers utilize RingCentral Phone and/or RingCentral Office application for SIP Trunking functionality which comprises a cloud IP PBX further comprising 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, RingCentral 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, RingCentral and/or its customers utilize RingCentral Phone and/or RingCentral Office application for SIP Trunking functionality comprising VoIP Network (“virtual gateway”) which accesses the knowledge based registry for protocol conversion upon receiving the message to be transmitted from RingCentral Phone and/or RingCentral Office application to the PSTN.

15. Based on present information and belief, RingCentral 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, RingCentral and/or its customers utilize RingCentral Phone and/or RingCentral Office application for SIP Trunking functionality comprising a PSTN gateway which converts the protocol of the messages sent from RingCentral Phone and/or RingCentral Office application to the protocol used within the PSTN.

16. Based on present information and belief, RingCentral 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, RingCentral and/or its customers utilize RingCentral Phone and/or RingCentral Office application for SIP Trunking functionality comprising a PSTN gateway which

is used to update the protocol conversion information and current status information stored in the knowledge base 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 and an accounting of all damages not presented at trial;
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.

Dated: December 3, 2018

Respectfully Submitted,
DEVLIN LAW FIRM LLC

/s/ Timothy Devlin

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