





## WHAT'S THE DIFFERENCE BETWEEN VOIP AND PSTN?

What's PSTN, and what's VoIP? What does their difference say about the future of telephony and business communications? You need to ask yourself if customer satisfaction, employee efficiently, call quality, phone reliability, ease of use and functionality are important to your business... Then, let's talk.



#### WHAT IS PSTN?

PSTN is known for providing reliable communications to its subscribers, PSTN is the traditional and international telephone system design, which originally carried analogue voice data through copper wires. Today, they're digitized but carried over the phone network separately from Internet traffic. PSTN stands for Public Switched Telephone Network, also referred to as Plain Old Telephone Service (POTS).



Interconnected by telephone exchanges (and a myriad circuit-switches), telephone lines, fiber optic cables, microwave transmission links, cellular networks, communication satellites, and undersea telephone cables together enable telephones to communicate with each other, connecting our nation seamlessly as well as between different countries through the ITU-T standards.

Also known for its dial-up sound, PSTN use numbers like route maps. They consist of three codes: an area code or a national destination code, an exchange code which indicates the minimum need of circuits bundled for the particular call, and lastly, the subscriber's individual number.

In the early days of PSTN, telephony needed assisting operators, physically and manually connecting pieces of copper wires to one another on a switchboard, in order to to connect every individual phone call. The longer the distance of the call, the more copper wire was required, and therefore, the more expensive the service. From the 60's and forward when phone calls digitized and switching automatized, many calls could share the same line.

### WHAT IS VOIP?

VoIP stands for Voice over Internet Protocol, which means real-time transmissions of voice signals from one IP address to another. It's a generic term for a set of facilities that sends voice in digital form, enabled either through Ethernet and Wi-Fi, through an analog telephone adapter (ATA) or through a softphone. VoIP calls can be made phone-to-phone, computer-to-phone, or in other ways. And, so much more!

Less than two decades old, VoIP has revolutionized communication all around the world. VoIP was developed sometime around 1995, with a purpose of enabling real-time local communication while avoiding long-distance and international charges. VoIP is balanced on the two major innovations telephony and the Internet.

There were few incentives for using the somewhat redundant technology, with its poor sound quality and "free" calls compromised by series of advertisements. Or so it seemed. In early 2000, the call quality and connectivity improved with the availability of broadband Ethernet. VoIP switching became a thing, and people as well as telco companies worldwide finally started realizing the benefits of the technology, as operating costs soared.

Then came Skype, the company that "forever changed what we wear in front of the computer". Starting off with

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voice in 2003, Skype was flexible and attentive to user demand. After adding video conferencing options a few years later, and through limiting third-party software and hardware, Skype went to the forefront of the telco market.

Make your business operate more efficiently and save money by using VoIP business communication.

VoIP telephony systems use the internet instead of traditional lines to make and receive calls, allowing your business to benefit from higher-quality digital business communication and reduce telephone costs.

Our VoIP services also include a wide range of other powerful advantages. Contact KC today and see how much you could save by switching to Business VoIP telephone service from KCCi.

FORTUNE 500 FEATURES: Instant Messaging, Presence, Conference Bridge, Softphone, Mobility, Virtual Office Call Recording, Online Meetings, Contacts Integration, Low Call Costs, Flexibility, Feature-rich, Keep Existing Numbers, Call Management, Call Center, Find Me/Follow Me, FoIP (Internet Fax), Auto Attendant, Voicemail, Directory Assistance, Number Porting, Unlimited Calling, 3-Way Calling, Caller ID & CID Blocking, Call Park, Direct Inward Dial (DID), Do Not Disturb, (DND), Group Call Pickup, Group Intercom Paging, Unified Communications (UC), Voicemail to Email, Unlimited Local & Long Distance... this is just a partial list.

Perhaps the most important thing to remember about a new business communications system is that, what is difficult to use will go unused. Features are only as good as their ease of use. The brains of the system are often hidden away but the telephone is used every day.



The needs of businesses vary and that is why flexibility in a telephone system is so important. A business should never be forced to operate in an inefficient manner because that's the way their telephone system operates. Matching the telephone system to unique business applications is the key to success.

Contact KC: (714) 577-7777, (888) KC-4-NEXT or (888) 524-6398 or Jason@KC4Phones.com







For more than 100 years, phones changed very little... Then came the Internet, mobile cellular & touchscreen smartphones and that changed everything. –KC

### THE TAKEAWAY FROM ALL THIS?

Today, 46.5% of U.S. households are without a landline, according to an estimate by Pew Research Centre, and VoWiFi (the wireless version of internet telephony designed to work on mobile devices and SMS/MMS services all over Wi-Fi) is predicted to grow massively within the next several years.

### **PSTN vs. VoIP: A Feature Comparison**

### **PSTN**

- ✓ Dedicated Lines
- ✓ Each line is 64kbps (in each direction)
- ✓ Features such as call waiting, Caller ID and so on are usually available at an extra cost
- Can be upgraded or expanded with new equipment and line provisioning
- ✓ Long distance is usually per minute or bundled minute subscription
- ✓ Hardwired landline phones (those without an adapter) usually remain active during power outage
- ✓ When placing a 911 call it can be traced to your location.

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- ✓ All channels carried over one Internet connection
- Compression can result in 10kbps (in each direction)
- ✓ Features such as call waiting, Caller ID and so on are usually included free with service.
- ✓ Upgrades usually requires only bandwidth and software upgrades
- ✓ Long distance is often included in regular monthly price
- ✓ Lose power, lose phone service without power backup in place
- ✓ 911 emergency calls cannot always be traced to a specific geographic location

It all comes down to learning the difference between the two services, and how to deploy voice solutions based on it. Sometimes a hundred percent is vital. Other times, the few percentages' that go unguaranteed are worth a service that's free or practically of charge.









The core technology and philosophies behind traditional phone systems were developed when most work was done by people sitting at desks in office buildings. Customer expectations were relatively low. Not much about the way people used telephones to communicate in businesses changed from the 1940's through 1999.

Then something happened. Use of the Internet became more widespread and disrupted our thinking about what it means to run a business. Old assumptions about work were challenged and new tools for productivity emerged and mobile devices added fuel to the fire.

KC Communications is the modern choice in telecom companies for today's agile, mobile and always-on company.

If you want to be a modern company you need to communicate like one... -KC

### **KC'S ELEVATOR PITCH**

The KCCi team greatly appreciates this opportunity to quickly introduce what we do.

For nearly 30 years, thousands of businesses throughout California and the nation have relied on the experts at KCCi for a wide variety of telecommunications, data products & services.

KCCi provides our clients with optimal communication performance across convergent technologies. We are at the forefront of today's information age - delivering complex voice, data, Internet, hosted cloud services, carrier services, video surveillance, and related digital products & services at increasing speeds and in ways that both; satisfy and delight our customers.



All of this occurs while our client partners benefit from potential cost reductions. So, if you haven't reviewed your telecom options recently, there are significant changes occurring in both premise-based & cloud-based telephony technology with pricing that will grab your attention.

Thank You,
-Ken "KC" Clements
Founder, President & C.E.O.
KC Communications, Inc. / KCCi

Contact KC,

# **BECAUSE BUSINESS IS ON THE LINE!!!**

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