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What is Cloud Telephony?

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Cloud Telephony (Cloud Calling)

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Cloud telephony, also known as *cloud calling*, is a type of unified communications as a service (UCaaS) that offers voice communication services through a third-party host. UCaaS replaces the need for conventional enterprise telephone systems, such as private branch exchange (PBX). Cloud telephony services can be web- or applications-based.

Cloud communications providers build, operate and maintain standardized telephony platform offerings on their servers, with customers gaining remote access -- via the internet - - on a subscription or as-needed basis. This model lets organizations ditch their conventional, on-premises telephone systems -- such as PBX -- which tend to be relatively expensive and time-consuming to provision and maintain.

Cloud telephony services enable users to place calls directly from any computer or mobile device with an internet connection and free businesses from the burden of buying and storing stand-alone hardware, like PBX boxes and handsets.

While somewhat fluid, the term *cloud telephony* typically denotes a multi-tenant access model, with subscribers paying to use a provider's pool of commoditized, shared resources. In contrast, *hosted telephony* usually refers to a dedicated, segregated environment --

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essentially, an off-site PBX -- that a major carrier builds, houses and maintains in its cloud for a single organization's use.

BENEFITS AND RISKS OF CLOUD CALLING

Compared with traditional, on-premises options, proponents of cloud telephony say it is more:

- **Cost-efficient.** By offloading hosting and management responsibilities to a cloud communications provider -- with subscription and pay-per-use models that enable resource pooling -- organizations can reduce their infrastructure overhead costs.
- **Flexible.** An employee with a cloud-based telephone number can take and make inbound and outbound calls anywhere with an internet connection, enabling more seamless mobile work.
- **Resilient.** While a natural disaster, fire or other emergency event can take down an on-site PBX system, cloud calling services tend to offer more resilient service and more reliable business continuity (BC). Most cloud telephony services have built-in failover modes that make sure a backup is available if a problem occurs with a connection.
- **Scalable.** Organizations can typically add or change employee telephone numbers on demand, via a self-service portal -- enabling efficient employee onboarding and offboarding for both on-site and remote workers.
- **Streamlined.** With cloud calling, organizations don't have to bear the burden of implementing, maintaining, troubleshooting and updating on-site systems. Instead, third-party providers handle infrastructural upkeep and upgrades.

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- **Transparent.** Many UCaaS platforms provide rich data analytics, offering information about user behavior and insight into optimizing employee efficiency.

Cloud-based voice technology also sets the stage for adding complementary UCaaS features, such as voice and keyword analysis, call center capabilities, interactive voice response (IVR) and artificial intelligence (AI)-enabled customer support. On the other hand, UCaaS analysts say organizations can't yet customize cloud calling offerings to the extent that is possible with on-premises systems, leading many large enterprises to delay adoption.

In terms of risks, experts say cloud telephony platforms can't satisfy some security requirements -- with multi-tenant, public cloud environments failing to meet certain stringent compliance regulations. For this reason, organizations dealing with highly sensitive data might opt for on-premises or hosted telephony, where they can ensure resources remain physically segregated and secure.

CLOUD TELEPHONY VS. VOIP

Virtually all cloud telephony platforms use voice over Internet Protocol technology, but not all VoIP systems run in the cloud. The term *VoIP* simply indicates how calling data travels -- over the internet, via IP's packet-switched connections, rather than over the traditional public switched telephone network (PSTN).

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An enterprise can choose to house its VoIP system on site (PBX) or outsource it to a third-party provider (cloud telephony). Some organizations create hybrid VoIP environments that use both cloud-based and on-premises calling technology, often as part of a long-term cloud migration strategy.

CLOUD TELEPHONY PROVIDERS

An array of providers currently offer cloud calling services, often alongside complementary UCaaS features, such as web conferencing, screen sharing, team messaging, persistent workspaces and more.

UC analysts expect to see increasingly sophisticated integrations between cloud telephony platforms and other business applications, such as Salesforce and Microsoft Office 365.

Today's cloud telephony vendor offerings include the following:

- Cisco Webex Calling
- Fuze
- Google Voice
- Mitel Networks
- Nextiva
- RingCentral

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- Vonage
- 8x8
- Dialpad