

Creating a Great Cloud Voice Experience

By Ivan Sindell

When opting for cloud voice, you need to consider important prerequisites, examining existing infrastructure and services to ensure a quality experience.

Cloud voice is most often approached as a problem of trading premises for hosted solutions. I've observed that when a cloud solution is decided on after a usual RFP process, a series of questions are created about the details of the service(s) offered. These questions need to be asked of those holding themselves out to be cloud voice providers. Frequently, these questions are simply not asked or brushed over too quickly. And this is unfortunate, as getting these questions answered is critical to determining the important prerequisites for an available and manageable voice solution.

To create a great cloud voice experience for your users, each element of the communications infrastructure needs to be re-examined with an understanding not only of the voice cloud provider's architecture/reliability, but also the network (WAN and LAN), deployment options, implementation support and operations (system management and maintenance).

Further, because the voice service is dependent on each of the other elements, you will need to re-examine the planning, design, budget, procurement, implementation, and operations and management plan that forms part of the cloud voice project.

Pre-requisites include WAN diversity (with two or even three paths and two or three carriers), the need for managed POE switches with adequate UPS, and a refreshed cable infrastructure. As you likely realize, the time and dollars required to accomplish these items are likely to require a significant portion of the project's duration and capital cost.

In general, the LAN for a voice system needs to be monitored 24/7. SMBs do not usually have the capability to manage the LAN, have never required it, or have never even thought about it. Yet, this is a particularly important prerequisite, second only to possessing adequate diverse bandwidth.

The relationship between voice service provider and channel partner is radically altered with most cloud voice products. Systems as small as five seats can be bought from major vendors directly. You may find, as I have, however, that the channel partner or enterprise support departments do not always respond as expected.

Answering Cloud Questions

I have created a template for an RFP aimed at unearthing answers about cloud architecture, cloud relationships, vendor business cases, sales and support structure, and implementation. This RFP helps me work through the design process with my customers. Specifically, I use a set of pre-determined design rules that I share with my customer before beginning an engagement, which provide guidance for structuring the work packages.

As you begin a detailed examination of cloud voice offerings, a new set of questions arise that require some understanding of cloud models. Acquiring answers to these questions ensures that you are not being "cloud washed" (being shown a hosted product that has been reborn by appending the word "cloud").

I recommend to begin by reading the National Institute of Standards and Technology Special Publications 500-292, "[NIST Cloud Computing Reference Architecture](#)." This is considered the industry-wide authority on a basic cloud definition. The NIST definition lays out five essential characteristics:

1. On-demand self-service
2. Broad network access
3. Resource pooling
4. Rapid elasticity
5. Measured service

These are offered to users as three service models: SaaS (known in our industry as CaaS/UCaaS), PaaS, and IaaS. They are made available through four deployment models: private cloud, community cloud, public cloud, and hybrid cloud.

Even just looking at the public cloud deployment offering, for example, there are numerous variations of voice provider offerings. Systems can be located in enterprise-owned data centers, in the enterprise's own clouds, on a channel partner's computers in a hosted data center, or on AWS as PaaS, to name a few.

There are many elements involved in a cloud voice solution, and it is important to define the roles and responsibilities of all the various players involved in order to be able to ensure a quality experience.

My fellow SCTC members Melissa Swartz, Dick Shoemaker and myself created a survey covering eight offerings from seven cloud providers based on my RFP approach. If you are interested in viewing the results, [contact me by email](#) and I will gladly share our findings.

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