

Using audio conferencing equipment is one of the most effective ways for organizations of any size to boost productivity and saving time and money in the process. And today's high-definition conferencing technologies make group communications possible in a very natural, effective environment. However, there are always things you can do to maximize your tabletop conferencing experience. Here are a few tips you can use to make your conference calls more effective and satisfying.

TIP 1: Full-Duplex Isn't Always Full-Duplex

Full-duplex audio has been around for a long time. But it is surprising how many conference phones still can't get it right. Full-duplex simply means that the audio is a two-way street—call participants can both talk and listen at the same time. Many devices claim to be full-duplex but really deliver only half-duplex performance, meaning that when one participant is talking, he cannot hear anything being said from the far side without substantial audio clipping or suppression.


TIP 2: Is There an Echo in Here?

One of the biggest challenges in delivering good sound quality during a conference call is eliminating acoustical echo. Canceling echo is especially important with speaker phone devices. A telephone handset does not need echo cancellation since there is physical isolation between the microphone and the speaker. However, since a speaker phone's mic and speaker are close to each other and not isolated, the mic can pick up audio from the far side coming through the speaker and return it back to the far side, creating an echo. The Distributed Echo Cancellation® included in ClearOne's products solves this problem by identifying the echo and eliminating it. We are a pioneer in echo cancellation and have been building and improving on this technology for over 25 years.

TIP 3: Keep the Noise Down!

Almost all rooms—including most conference rooms—contain ambient noise produced by HVAC systems, fluorescent lights, projectors, computers, etc. Noise cancellation algorithms can identify these sounds and remove them. Our approach is to use a digital analysis technique that discriminates the talker's voice from ambient room noise and only apply noise cancellation to the ambient room noise. This allows the audio to pass to the far side in a pristine condition.

TIP 4: Are You in a Tunnel?



When multiple microphones are active simultaneously in a conference phone, voice signals arrive at different microphones at different times due to sound reflection from walls, ceilings or other surfaces. This causes sound distortion which is often described as a "hollow" or "tunnel" sound. With our First Microphone Priority technology, this distortion is minimized by using an intelligent voice detection method to activate only one microphone at a time based on the proximity of the person doing the talking.

TIP 5: Shut the Door!

In any conferencing environment, a number of factors can cause changes in the room's ambient noise level, including the HVAC system cycling on and off, an increase or decrease in the number of people in the room, changes in seating arrangements and other similar acoustical events. These events can cause a variety of audio problems, such as feedback and residual echo. Our Adaptive Modeling technology continuously monitors key acoustical elements to predict and adapt to environmental changes, ensuring high quality audio, regardless of varying room dynamics.

TIP 6: Mr. Bell Is That You?

The vast majority of conference calls are conducted using narrow-band phone signals, which eliminate the high and low tones from participants' voices. This causes listener fatigue due to participants straining to hear what is being said. Our ClearEffect technology creates natural, full-sounding audio by simulating the high and low tones that were eliminated by the narrow-band signal. This makes the call sound much more natural and easier to listen to—kind of like going from a clock radio to a full-room entertainment system.

TIP 7: Conference Room Feng Shui

Conference room layout is not about achieving harmony with one's environment, but just making sure the equipment is positioned so you get optimal performance. For example, in a medium- or small-sized conference room, it seems pretty obvious that a tabletop conference phone should be placed in the center of the table. This makes it possible for all participants to hear and be heard. However, it also helps with the phone's ability to effectively handle feedback or residual echo from reflective surfaces. In other words, don't place the phone up against a wall or window and expect it to sound good.

TIP 8: Help! I'm Trapped Under That Piece of Paper!

It's always gratifying to walk by a conference room and see several participants talking away, working on their laptops, with papers spread all around, getting lots of work done. Just be careful that papers or notebooks don't accidentally cover up any of the microphones on the conferencing equipment. In order to work effectively, all mics should have plenty of empty space around them.

TIP 9: Quoth the Raven, "Nevermore."

Remember Poe's famous poem, The Raven? All of that tapping, rapping on his chamber door? Well, if you're in the middle of a conference call, someone tapping on the table or playing with the conference phone mics can be a huge distraction. And all of that noise makes the digital signal processors (DSPs) in the phone go through a lot of extra gymnastics in order to try and differentiate between the extra noise and the speaker. Do yourself a favor: Leave the tapping to the birds.

TIP 10: It's Gotta Be ClearOne or Nuttin'!

Okay, this final tip is a little self-serving. But nobody does audio conferencing better than ClearOne. We've been in business for over 25 years and our products are used by thousands of organizations worldwide, from small enterprises to the Fortune 1000, as well as domestic and international governments and educational institutions. We are committed to providing the highest quality hands-free audio for any environment—analogue or VoIP—from personal conferencing on PCs and cell phones, to office desktop conferencing, to large professional conferencing venues such as boardrooms, training centers, courtrooms, and auditoriums. The top firms in all industries know that ClearOne's HDConference technologies deliver the ultimate high-definition audio experience.