

CHALLENGE, SOLUTION, PLANTRONICS

ACOUSTIC INTELLIGENCE

SOUND IDEAS FOR YOUR CONTACT CENTER

plantronics[®]



iPAD VERSION AVAILABLE
iBooks 2 required

TALK IS NOT CHEAP

IN FACT, IT CAN BE VERY EXPENSIVE

You're in leadership at the contact center. You know how calls unfold, and what gets said. So ask yourself:

- 1. How many times a day do your agents ask customers to repeat themselves?**
- 2. How often do they enter incorrect information because they've misheard a customer?**
- 3. How is audio quality affecting both agent and customer experience?**

Running a modern contact center is difficult enough without having audio problems. When customers call you, they must be able to hear your agents

clearly, and vice versa. Poor connections, noise, and garbled speech reduce productivity, drive up costs, and result in skewed data. And they can damage the brand value you've spent years — and marketing dollars — cultivating.

As the complexities of business increase and demographics continue to shift, the subtle nuances of speech grow more critical. Acoustic Intelligence refers to technologies that help ensure superior clarity with customers.

The evolution of the contact center is creating challenges for organizations — and Acoustic Intelligence can help you meet those challenges.



NOW HEAR THIS

HOW DO YOU MANAGE ACOUSTICS IN A DECENTRALIZED CONTACT CENTER?

Today, the contact center is evolving from a centralized model to include a more distributed approach with hubs and home workers. Within these new workspaces, managers have less control over the acoustic characteristics of the work environment. Customers will accept minor “office” background noise, but hearing “street” or “home” sounds can cause a loss of trust — threatening relationships and possibly resulting in lost business.

But here’s the good news: Much of this ambient background noise can be controlled with the right equipment and its proper usage. For example, look for innovations such as line noise reduction, ambient noise cancellation, echo reduction, volume spike elimination, and microphone booms able to provide optimal placement.

Check out the concise, downloadable Agent Training videos at Plantronics.com/ContactCenter.



BRACE YOURSELF. IT'S AN INCOMING CALL.

HOW AGENTS CAN BETTER CONTROL THE ACOUSTICS OF AN INCOMING CALL

In the deregulated environment of telecommunications, there is a wider range of devices that customers can call from, such as smartphones, PC/softphones, traditional phones — even tablets. Also, there's an increasing number of networks that a call can travel across.

This diversity can create two challenges for your contact center — and your business: Volume control and network noise.

While there are options for solving these issues through network or equipment configuration changes, they're generally complex and time consuming to implement.

For some simpler solutions that can be just as effective, see the next page ▶

AUDIO PROCESSING TO THE RESCUE

CHALLENGE

SPEECH VOLUME LEVEL



- ▶ **The volume level of incoming calls can vary a great deal.**

Vital information at the start of the call can be missed and necessitate repetition, frustrating both caller and agent. Requiring the agent to manually adjust each call to a level that makes speech comfortably intelligible without being overbearingly loud is inefficient and fatiguing.

- ▶ **Sudden, high-volume noise spikes are detrimental to your agents' performance and well-being.**

Sudden and extremely loud noises can result in "acoustic startle." A properly designed headset will stop a dangerously high level of sound from being delivered, but it alone will not prevent a still painful experience from which the agent might need time to recover.

SOLUTION

- ▶ **Consider equipment that provides unobtrusive automatic gain control (AGC) functionality, or smoothing.**

Some desk phones and softphones provide a certain amount of smoothing. But for headset users, the best results are achieved with dedicated audio processors that adjust every call to the level each agent prefers overall.

- ▶ **Consider equipment that specifically protects the agent from extreme audio spikes with near instantaneous active management of startling sound levels.**

Audio processors use sophisticated algorithms to identify and clamp down on a jarring sound before it can have any psycho-acoustic impact, protecting your agent and avoiding disruption.

ACOUSTIC STARTLE



AUDIO PROCESSING TO THE RESCUE

ECHO



CHALLENGE

- ▶ **Multiple networks and repeaters can cause echo.**

Echo on incoming calls, caused by the external network, distracts an agent from giving the customer the seamless attention they deserve. It increases their mental workload and impacts the accuracy of what they are trying to communicate.

SOLUTION

- ▶ **Consider equipment that actively identifies and reduces external network echo.**

This functionality typically is found in premium audio processors.

EXTRANEOUS NOISE



- ▶ **Hiss, buzz, and other people's conversations compromise the customer interaction.**

Unwanted background sounds and network noise are distracting and tiring, compromising the agent's ability to effortlessly interact with the customer.

- ▶ **Consider equipment that applies noise-gating algorithms to maintain audio when the caller is speaking, but cuts it back when there is no useful speech energy.**

This minimizes the effort of listening and maximizes call intelligibility.

THE LOWDOWN ON NOISE CANCELLATION

Noise-canceling microphones work by responding more to sound energy coming from a specific direction close by than to diffused voice energy from farther away.

Too much of a good thing

The single biggest real-world cause of poor transmit audio is not technical at all, it is poor microphone placement by the agent. As microphone arrangements exhibit higher degrees of noise canceling, they also demand much greater proximity and consistency of microphone placement so that the talker does not become part of the very background that is being cancelled.

A properly designed contact center headset provides just the right amount

of mechanical noise canceling at the right frequency bands. This brings the agent's voice into the foreground without requiring the agent to "eat the microphone" to be heard reliably and clearly. Beware of the idea that you should look for as much noise canceling in a headset as you can — far from improving the customer experience, you can severely compromise it. After all, your agents are not launching jets from a flight deck!

Active noise canceling for security

A powerful complement to mechanical noise canceling is active noise reduction, a feature of audio processors that cut off an agent's microphone when the agent is not actively speaking.



This not only makes for a yet more distraction-free experience for the customer, it improves security and helps with HIPAA and PCI compliance by further reducing the likelihood that an adjacent agent's customer will overhear sensitive information.

In home-agent environments it is also invaluable for screening out "one-off" noises such as a dog barking or a door slamming.

“D” AS IN DOG, “F” AS IN FRICATIVE

DON'T LOSE ACOUSTIC CLARITY WITH HIGH-FREQUENCY CONSONANTS

First Call Resolution (FCR) and shorter call durations are two of the most critical measures of success for contact centers. Both require minimizing the time spent with customers, and to do this, audio quality has to be optimized.

One challenge stems from how humans speak. The intelligibility in speech relies on distinguishing between consonants such as F and S, and B and P, known as fricatives. These are composed of higher frequencies that are compromised by public networks' frequency range.

The clarity needed to hear fricatives can be lost on the wrong headset. When choosing equipment, a natural inclination is to pick models that emphasize the bass (lower) frequencies one associates with good music listening, but in truth the lower frequencies are useless energy and volume, contributing nothing to intelligibility.

Seek out models with the frequency response tuned to the “intelligibility” part of human speech. This simple consideration will reduce mistakes and repetitions, enabling you to resolve



issues faster, handle more calls with the same head count, and make calls more productive.

Agent fatigue is also relieved, since the subconscious work the brain does to compensate for difficult audio is a serious energy drain over the length of a shift. And we all know that customers respond to the difference between a jaded agent and a fresh, smiling one.

YOU WON'T BELIEVE YOUR EARS

GET READY FOR DOUBLE THE BANDWIDTH WITH HD VOICE

The latest enhancement to telephone systems is wideband audio, or High Definition (HD) Voice. For those with the latest wideband IP networks, HD Voice takes the standard telephony bandwidth and doubles it, to 6.8 kHz — dramatically improving the intelligibility of the consonant sounds in the human voice that lose energy in standard telephone conversations.

HD Voice is now beginning to reach beyond the enterprise, into consumer technology (for example, Skype). One challenge remains: To enable HD Voice, every component along the voice path must support it. While today this is relatively rare with external callers (even a single standard network hop cuts the bandwidth back down), investing in wideband-capable equipment now means you'll be ready when your customers expect it.





LET'S BE CLEAR

ACOUSTIC INTELLIGENCE IS JUST
SMART BUSINESS

There are many factors affecting the quality of contact centers' communications with customers, and Plantronics is leading the way toward clearer, more efficient conversations. With the right Acoustic Intelligence, contact centers can achieve that elusive combination of shorter calls and improved customer service — and thereby sharpen their competitive edge.

Find out more at Plantronics.com/ContactCenter

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