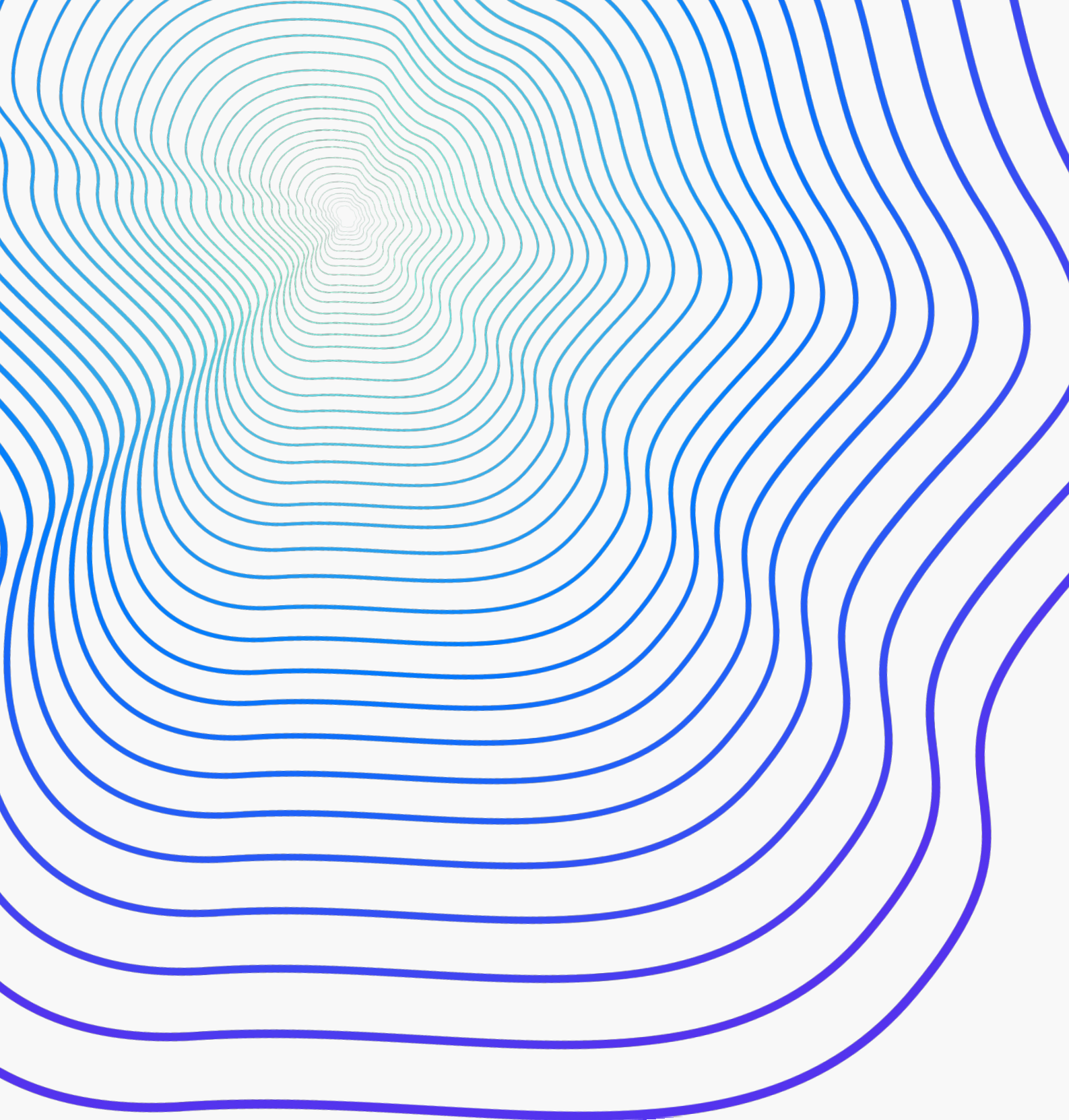




# **Research identifies three key impacts of noise on call centers and hybrid work environments**

Research paper published by  
**IRIS Audio Technologies**



**IRIS Audio Technologies**  
**Visit our website: [iris.audio/daktela](https://iris.audio/daktela)**

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IRIS is an audio technology company with a mission to enable the world to Listen Well. We created IRIS Clarity, an AI-powered software solution that removes background noise from your customer calls and online meetings, to bring control to otherwise uncontrollable environments.

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# Executive summary

Welcome to IRIS Audio Technologies' updated report on the impact of background noise in call centers.

To gather data for this research, IRIS surveyed 500 call center agents and 1,000 customer-side call participants in the US and UK, and explored findings from over 20 industry reports. From these sources, we extracted many insights into the changing digital world – particularly around the uncontrollable noise in environments it has introduced and the ways people have adapted to working.

The research demonstrates that noise is a very real problem impacting three primary areas:

1. **Customer satisfaction** – Noise often leads to frustration and anger when a customer who requires assistance is misunderstood or forced to repeat themselves.
2. **Productivity** – Noise increases call duration (Average Handling Time) due to misunderstandings or the need to repeat key data collection such as name spellings, account numbers, etc.
3. **Agent wellbeing** – Agents on the receiving end of noise-related frustration and anger feel stressed and hindered in their job.

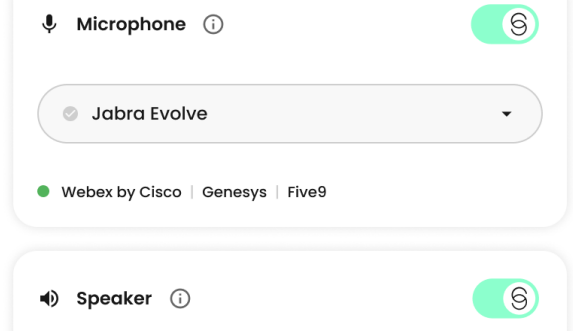
Clear audio without the impact of frustrating distractions is essential for call centers to reach the best possible outcomes – whether agents are home- or office-based. As a premier audio technology company, IRIS is dedicated to solving the problem of noise in customer calls. IRIS Clarity uses the latest in AI to isolate the voices on a call and remove all background noise. Developed and tested in some of the most challenging environments – including F1 race communications where engine noise can exceed 130 decibels – IRIS Clarity is now primed to eliminate the negative impacts of noise in call centers around the world.

We hope you find this report helpful and insightful, with clear solutions on how audio can not only improve your results and KPIs, but also your customer experience and employee wellbeing. If you'd like to try IRIS Clarity in your call center, please email us at [info@iris.audio](mailto:info@iris.audio) to talk to our sales team.

Jacobi Anstruther  
Founder & CEO, IRIS Audio Technologies



Find out more about IRIS Clarity's call center voice isolation solution at **clarity.audio**



## All at once, everything changed

The COVID-19 pandemic brought business change unlike anything most of us have seen in our lifetime, and is reported to have accelerated the transformation to digital by three to four years<sup>1</sup>, at least.

The call center industry was certainly one of the heaviest affected by the global shift to remote working. In early 2020, almost all call center operations were hit with the perfect storm. First, they had to work out how to shift their operations to remote, turning a massive and typically old-fashioned sector upside down. Until then, working onsite under strict control and supervision was an imperative for this almost \$340 billion market (in 2020) with more than 15 million employed agents worldwide.<sup>2</sup>

In addition, call centers were dealing with historically high levels of queries due to pandemic-related disruptions — an average of 30% more<sup>3</sup> claims were recorded across industries, with some sectors such as retail seeing queries increase by over 7x standard levels. The entire sector had to undergo an unplanned, forced, and instant transformation

at a time when they had never been busier.



There's been more change, arguably, in the last 18 months than there was in 18 years prior to the pandemic.<sup>4</sup>

Stephen Yap  
Research Director, CCMA

The result of this transformation has been massive. 90% of call center agents globally were forced to work remotely during the pandemic, which for most companies has damaged the customer experience.<sup>5</sup> In terms of standard KPIs, Average Handling Time (AHT) has increased from an average of 3-6 minutes to 10+ minutes; Customer Satisfaction Score (CSAT) has plunged, with 75% of consumers saying customer

service worsened<sup>6</sup>; and the number of touchpoints increased, with 78% of customers complaining they had to contact companies multiple times for a single issue.<sup>7</sup>

A drop in quality isn't surprising considering many organizations and agents were ill-prepared for the shift. One call center found that 22% of their agents were using ironing boards and window sills as workstations due to the lack of a suitable desk.<sup>8</sup> Call centers as a whole struggled to adapt, with security and supervision proving difficult in the early days.

## Call centers after COVID

Over three years after the start of the pandemic, the shift to remote or hybrid working remains. At the time of writing, Adobe, Amazon, Apple, Deloitte, Disney, eBay, Google, Microsoft, Salesforce, and Twitter are just some examples of major organizations that have become either permanently hybrid or remote-first. In fact, 55% of businesses globally now offer at least some capacity for remote work<sup>9</sup> – a considerable jump from pre-COVID times when only 6% of the employed worked primarily from home.<sup>10</sup>

While these changes were initially driven by the requirement for social distancing, evidence suggests they are here to stay long-term. 87% of those who were able to work from home during the pandemic want to be able to continue to do so in some form going forward.<sup>11</sup> People's eyes have opened to a new way of working and more and more employees are demanding hybrid

working from their employers (52% of men and 60% of women).<sup>12</sup>

The call center industry's figures differ slightly from the norm. Our research of 500 customer service agents in the US and UK<sup>13</sup> found that whilst there is definitely more uptake and allowance of remote/hybrid working (agents work remotely on average 41% more now than before the pandemic, and the number of agents entirely prohibited from working remotely has dropped 13%), the trend towards remote working is definitely less pronounced than with the rest of the population.

88% of CX experts believe customers have higher expectations than they did in previous years.<sup>14</sup>

Does this new standard allow agents to continue addressing their issues remotely? Agents clearly think so. In this case, the call center industry reflects other industries' remote working trends more. Research indicates that customer service agents are enjoying the shift to remote and want to keep doing it. In fact, Gartner found that 70% of customer service agents wish to continue working from home long-term, and 81% of service leaders believe between 30% to 80% of their workforce will primarily be working from home two years from now.<sup>15</sup>

Our study even showed that of those who couldn't work remotely, 20% were actually considering leaving their job because of it.

This trend is no more obvious than in the Philippines, where 20% of the country's Business Process Outsourcing (BPO) staff threatened to quit if forced back to their pre-pandemic work environments.<sup>16</sup> Much like employees in other verticals, call center agents have enjoyed the flexibility that remote working gives them, as well as the savings in time and money, and a location away from other people where they can concentrate. Organizations will need to find solutions to remote working obstacles such as security, equipment, and uncontrolled working environments in order to avoid falling foul of 'The Great Resignation' we're currently experiencing.



We've had a chance to reflect, pause, reassess, re-evaluate what's important to us and what we need and want [out of our working lives]. That's given people an opportunity to really dig into what's important to them and also, from a business point of view, [to ask] what we want moving forward and what we want to leave behind. Is it sustainable? I think that's here to stay, even if it's in a hybrid approach that a lot of businesses are now taking.<sup>17</sup>

Louise Goss  
Founder, Homeworking  
Magazine

From an organizations's perspective, remote working also offers multiple advantages. Cost-saving is a big one, in particular savings in travel costs and office space rental. It's estimated that companies could save around \$11,000 annually for each employee who works remotely half the time.<sup>18</sup> The other big driver is a newfound access to a wider talent pool. Removing geographical barriers from recruitment searches provides access to a slew of qualified candidates, many of whom don't cost employers as much because they don't have the same living costs as those living in expensive urban centers.



It is very clear to me that hybrid is absolutely here to stay. What we've learned from the last 20 months is that it's entirely possible to offer hybrid working and deliver both a reasonable customer experience and a reasonable colleague experience in a hybrid environment.<sup>4</sup>

Stephen Yap  
Research Director, CCMA

## Office or home: Noise is everywhere (including on the customer side)

Regardless of whether call center agents are working from an office or from their home, noise remains a challenging thing to control.

- Office: Anyone who has been on a support call with their bank, cable company, or airline provider will likely report the sound of background chatter from other agents coming through.
- Home: Working from home removes that background chatter of nearby agents, but introduces a different challenge – unplanned, variable noise. The neighbor's lawn mower, the dog barking at a delivery person, car horns during heavy traffic can just as easily disrupt conversation.
- Customer-side: Even when the call center or agent can control the noise on their end of the line, they have no control over the noise around the customer. Calls from the car with a screaming toddler in the back seat, calls from a busy café, or calls from a street corner are all too commonplace.



Furthermore, background noise is a four-pronged issue. You have:

- The sound your agent can hear from their end of the call
- The sound your agent can hear from the customer's end of the call
- The sound your customer can hear from the agent's end of the call
- The sound your customer can hear from their end of the call

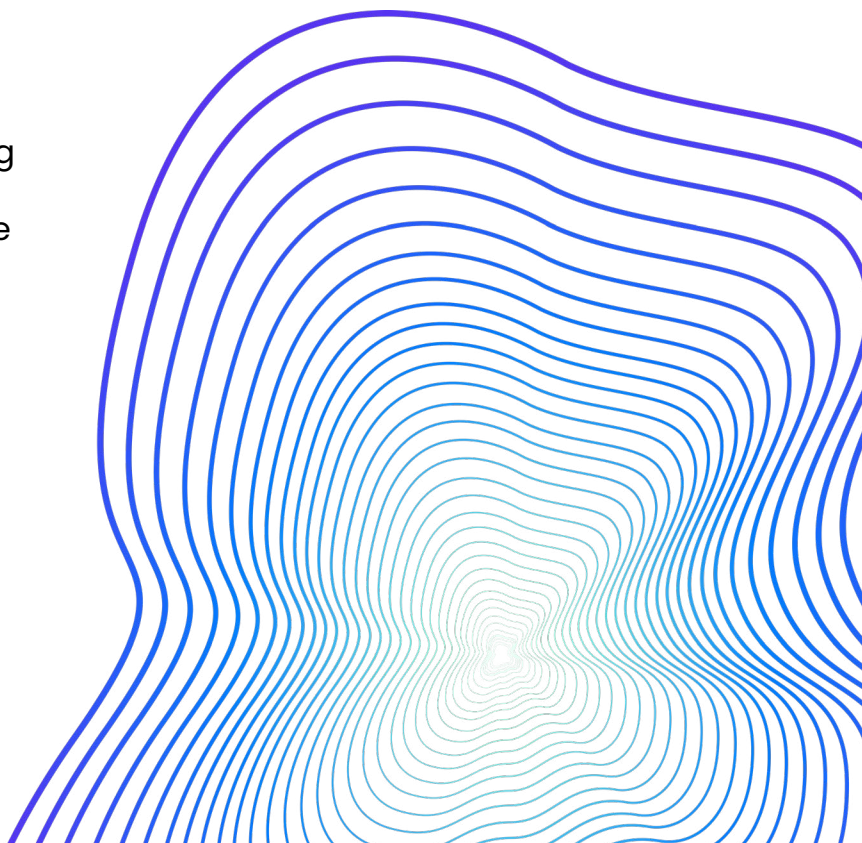
Sound-proofing offices and upgrading headsets only solves half the problem, at best. Noise-absorbing partitions and increased space between agents may help on a call center floor, but do nothing to address noise on the customer side and are hard to replicate at home. Active noise-cancelling (ANC) headphones only work for the person using the headphones, blocking noise from their side of the call. Clear voice capture (CVC) cancels the noise around the agent for the customer, but it doesn't cancel the noise around the customer for the agent.

There have been numerous advances in video quality over the last decade, including webcam design and resolution, improved video streaming bandwidth, and even creative background masking technology to hide that dirty living room. Somewhat surprisingly, there has been virtually zero significant advancement in audio during that same period. This lack of innovation in audio is perplexing — especially when our research shows that noise leads to three major problems for call centers.



Most solutions only deal with the advisor and the noise cancellation at the advisor end. What we see with [IRIS Clarity] is that the customer benefits as well as the advisor so you get clarity throughout the interaction, which is perfect.<sup>19</sup>

David Gilfillan  
Technical Director,  
Ascensos



# New normal, old audio

## Problem 1: Customer satisfaction

More than 50% of customers across all age groups prioritize a phone call over other channels when looking for customer service.<sup>20</sup>

This makes it the most popular method of customer service, even with the rise of digital channels. Combine this with the aforementioned fact that 88% of CX experts believe customers have higher expectations than they did in previous years<sup>14</sup> and it's obvious why audio is so key to customer experience.

As it seems remote working is here to stay even in the call center industry, the issue of ambient noise takes a fresh form. Background noise is not a new obstacle in this space — even pre-COVID, 64% of call centers found background noise to be an issue.<sup>21</sup> Our research further proved this with background noise around themselves and the customer being the biggest (52%) and second biggest (37%) obstacles for agents when working from the

office, and the largest (39%) and third largest (27%) when working remotely.<sup>13</sup>



What we're seeing is momentum growing. An understanding that the traditional audio environment which we've all become accustomed to — the average phone call — is pretty noisy.<sup>4</sup>

Stephen Yap, Research  
Director, CCMA

Meanwhile, from the customer's point of view, loud, annoying background noises severely affect their experience, especially when they're likely already aggravated with whatever issue they're trying to fix. If it's a sales call — particularly an unsolicited one — even the slightest annoyance can lead a prospect to end the call early. The numbers prove this: our survey of 1,000 customers found that 77% of customers have been on a call where background noise

around the agent made it difficult to hear them and receive the desired level of support.<sup>22</sup>

The agents agree. 84% believe noise and distractions have a negative effect on customer service and prevent them from achieving positive outcomes.<sup>13</sup> Simply put, bad audio means slower, less accurate outcomes that frustrate and lose customers on their preferred channel of communication.



Some of the more common emotions that people experience in any industry are frustration and irritability. So if a salesperson is looking to convert a qualified lead or they're having a conversation that needs to be really rich, those slight audio issues, those noises, those distractions, those interruptions, they all heighten their frustration levels, which becomes very obvious in their tone of voice. The other person inevitably picks up on it and it all contributes to employees and customers alike getting tired, losing their motivation, losing their morale.<sup>23</sup>

Sadie Restorick  
COO, Wellity

## Problem 2: Productivity

A lot of research has been conducted around online calls and meetings after the pandemic with the key question always being: do we absorb information and convey it back as well online as we do in person?

The research shows that audio plays a huge part in answering this. One study of 2,800 US workers showed that audio problems were the biggest pain point of virtual calls and meetings, with over 50% saying it had affected them in some way.<sup>24</sup>

This is a significant issue for call centers, where KPIs are forensically measured and metrics such as Customer Satisfaction and Average Handling Time are easily affected by loud noises – whether these come from the customer’s side or the agent’s side. In fact, 89% of the call center workers we surveyed say poor sound quality or background noise impacts the quality of calls, ability to communicate, and time to resolution.<sup>13</sup> This tracks with the fact that 87% of the customers we surveyed have had to repeat themselves in the past due to background noise in call center calls.<sup>22</sup>

The impact of noise also extends to financials. Every minute wasted by repetition, waiting for noise to die down, and correcting misheard phrases is worth considerable money for call centers where margins are already tight. An astounding 85% of our surveyed agents said that background

noise causes them to repeat themselves on customer calls<sup>13</sup>, and audio-related issues like these are estimated to cost the industry up to \$2.5 billion per year.<sup>25</sup>

Whilst many companies we talk to and work with acknowledge that background noise is a problem, they don’t tend to be aware of the extent to which it’s hitting their bottom line. The numbers can be quite staggering and are easy to calculate.

### Background noise impact calculator

A conservative estimate of the amount of time wasted in customer service calls due to background noise is 5 seconds.



200 agents x 500k calls per week



Avg. calls = 120 seconds



Hourly wage = \$26

The impact of noise:



69hrs wasted per week costing \$1,806



3,588 hrs wasted per year costing \$93,889

Purchasing a tool like IRIS Clarity leads to:



A 5:1 ROI



Upfront costs paid back in <3 months



The best feedback we've had from our advisors is just how easy it is to reach successful customer outcomes without repetition."

John Devlin  
CEO, Ascensos

Find out more about how we helped Ascensos in our case study at [clarity.audio](https://clarity.audio)

The common thread in these studies around productivity both in and out of call centers is the critical need for high-quality, flowing conversations without interruptions. As long as background noise continues to be a problem, people will need to continue to mute, tell others to mute, miss important information, and ultimately fall short of peak performance, costing call centers valuable time and money.

## Problem 3: Agent wellbeing

Multiple studies have proven that bad audio can be detrimental to your health, whether it be the damage caused by loud or unexpected noises, or the stress caused by struggling to hear interrupted sound.

The US Environmental Protection Agency advises that average exposure to noise should not exceed 70 dB in order to prevent hearing loss.<sup>26</sup> Yet, a whole range of call center and home-based noises often exceed these levels, such as barking dogs, ringing phones, washing machines, kettles, and even general ambient office noise. Background noise can disrupt your wellbeing. In fact, a 2011 study found that households in ambient noise-heavy areas such as flight paths and traffic were considerably more likely to take medication used to treat hypertension (high blood pressure).<sup>27</sup>

The call center industry has a particularly unhealthy relationship with background noise and staff wellbeing. In an environment where noise is constant on both sides of a call – whether it's in a crowded call center, in an uncontrollable remote working environment, or wherever the customer is calling in from – it's evident that poor audio is a source of stress and annoyance for customer service agents with tight deadlines and aggressive targets. In fact, 74% of call center agents are at risk of burnout<sup>28</sup>, and the call center industry has the highest turnover rate of all, at 30-45%, and even higher in some markets.<sup>29</sup>

Our research suggests background noise plays an important part in this: 69% of agents claim noise had a negative impact on their wellbeing.<sup>13</sup>

In a nutshell, solving the problem of poor audio could save call centers both time and money by increasing productivity; improving customer experience with quicker, more effective calls; and reducing agent turnover by removing one of the significant stressors in their role.



“We’ve chosen to partner with IRIS because they provide our enterprise clients with the best of everything: Cutting edge technology that benefits consultants as well as customers, and post-sales support that goes above-and-beyond what the industry is used to.

Marco van Biljoen  
CTO & Founder,  
MLT-Consulting Group

# IRIS Clarity: the key to unlocking the digital revolution and greater customer experience

The plethora of research on this subject shows a clear conclusion: almost all aspects of our lives will be considerably more digital going forward. Whether it's through choice or necessity, digital is here to stay and the call center industry has to keep up with these trends.

The main casualty digital brings is an exacerbation of the already significant problem of noise. Not only will agents continue to be in a noisy environment, but customers' new environments will bring even more noise to the call.

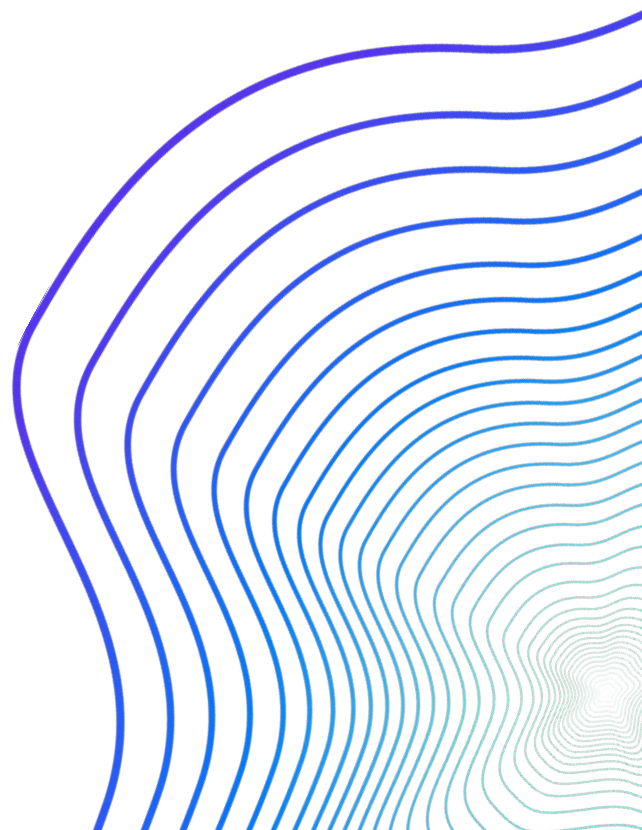
Whilst our first reaction to this issue might be to brush it off as a minor inconvenience, the research shows that these interruptions have a massive impact on our capacity to communicate effectively, which in turn hinders our ability to both take in information and convey it. This can lead to lower productivity, more mistakes, lost income, and even damage to mental wellbeing. The customer, the agent, and the organizations all suffer.

The digital revolution we've witnessed driven by national lockdowns led to pioneering advancements in the visual side of communications, but audio was left behind. We believe the next stage of the digital revolution will involve significant improvements

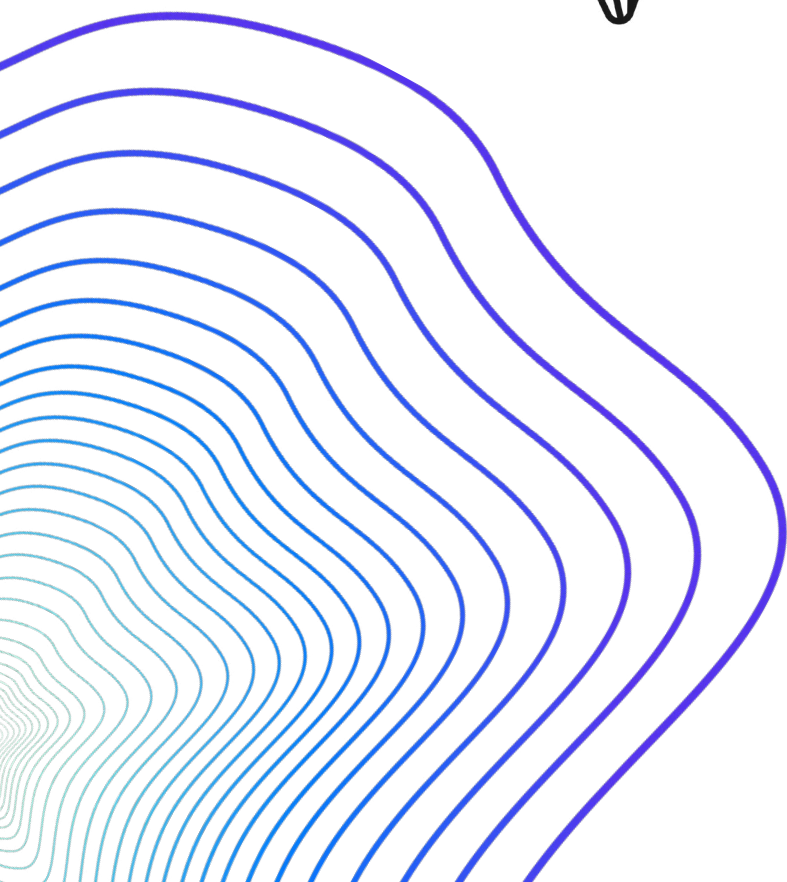
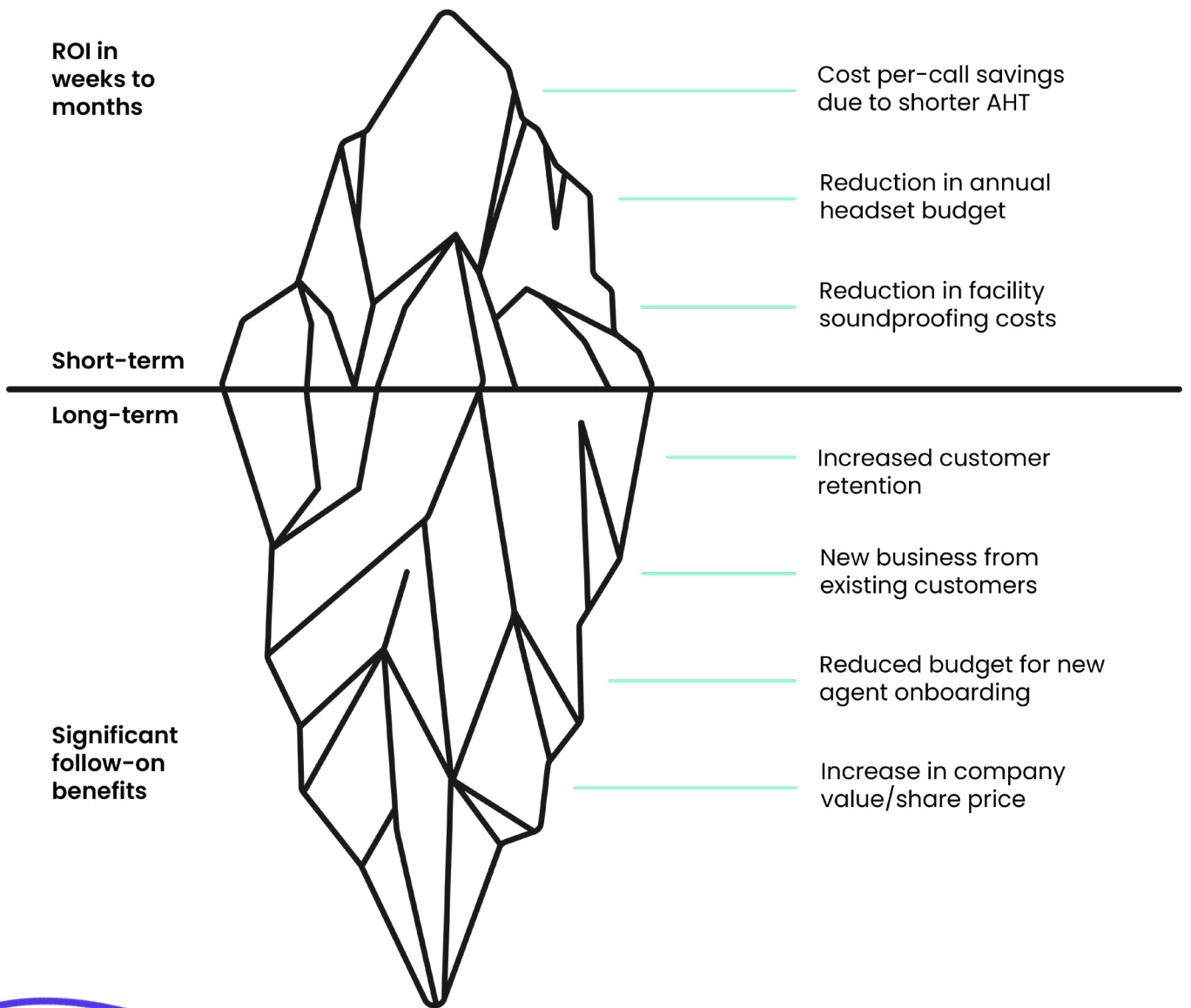
to the audio components of online conversations.

At the forefront of this will be voice isolation solutions such as our own – IRIS Clarity. These tools use AI in order to remove background noise including barking dogs, noisy colleagues, busy traffic, other people, and everything else from both sides of a customer call. This preserves the flow of the conversation and improves focus, engagement, and wellbeing for all.

The removal of background noise and improvement of conversation not only demonstrates immediate benefits, but longer term strategic advantages as well, like the diagram on the next page shows.



# A speedy return-on-investment, with additional long-term benefits



Noise has always been a problem for the call center industry, but the shift to remote means it can no longer be brushed off as a minor inconvenience. Much like AI-driven virtual backgrounds, IRIS Clarity allows call centers, agents, and customers to take control of their environment in order to deliver the best possible outcomes from every conversation.



# Noise is hurting your call centre

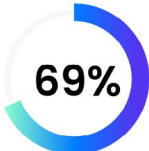
A research study by IRIS Audio Technologies.

In our paper, 'Research identifies three key impacts of noise on call centers and hybrid work environments', we surveyed 500 call centre agents and 1,000 customers in the UK and US to understand the impact of background noise on productivity, customer experience, and wellbeing. The message is clear, background noise is hurting call centres.

## The agent



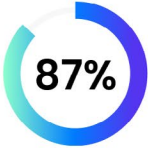
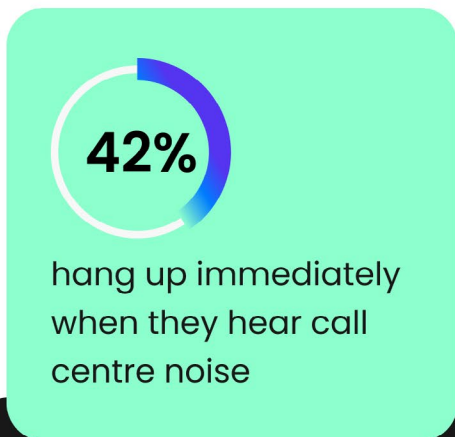
of agents have wasted time on calls due to repetition



of agents feel noise has negatively affected their wellbeing



## The customer



of customers have had to repeat themselves due to noise

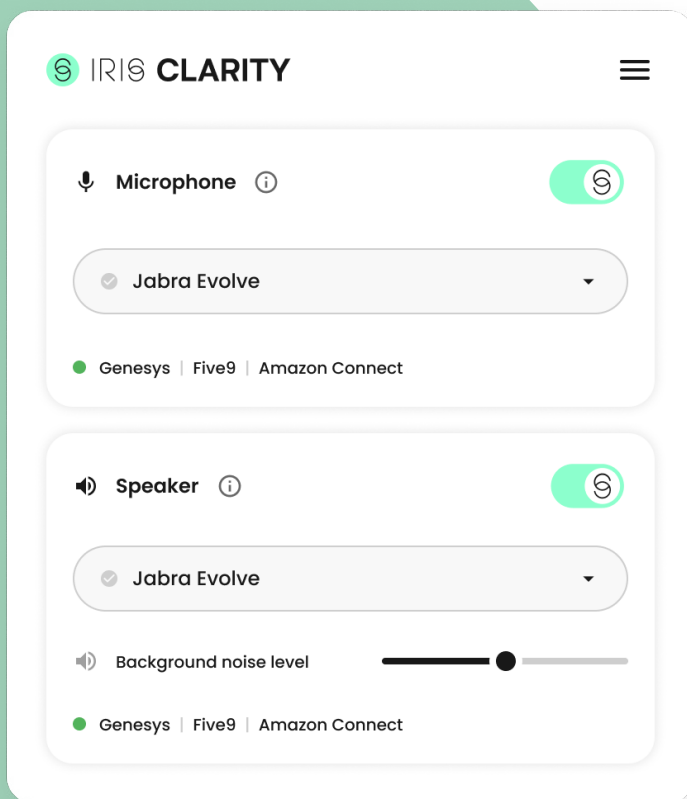


have hung up because they felt they were in a loud, inconvenient place

IRIS Clarity solves this by removing all background noise on both sides of your customer calls. To chat with one of our voice isolation experts, contact us at [iris.audio/contact](https://iris.audio/contact) or discover more at [clarity.audio](https://clarity.audio)

# IRIS CLARITY

## eliminates background noise from your customer calls



### Productivity

Clearer calls keep agents focused on customer needs, boosting KPIs

### Customer satisfaction

Less repetition means fewer mistakes and happier customers

### Agent wellbeing

Less mental fatigue relieves agent stress, reducing staff turnover

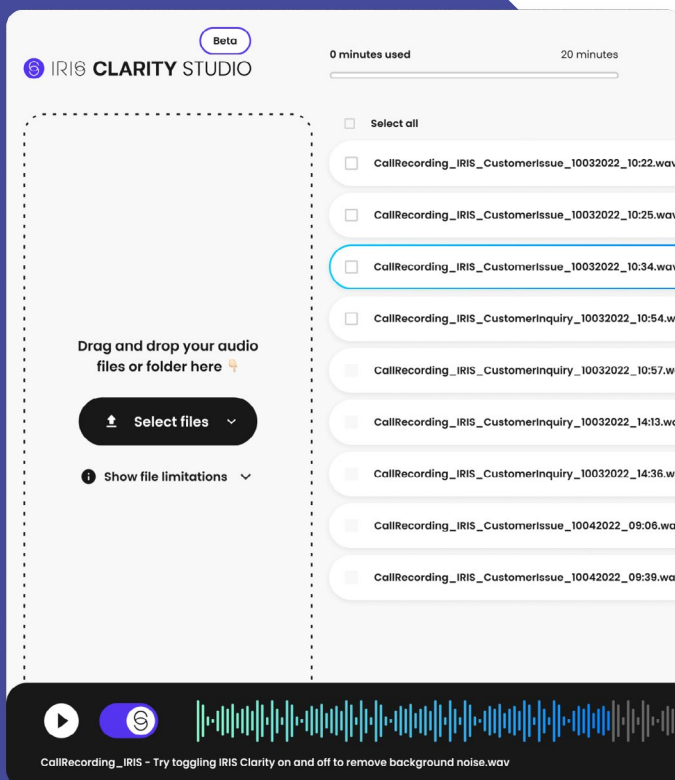
See how noise impacts both agents and customers:  
[clarity.audio](https://clarity.audio)



Compatible with:



# IRIS **CLARITY STUDIO** elevates post-call analytics



## Accuracy

Clearer calls improve voice-to-text transcription for heightened post-call insights

## Performance

Speech accuracy increases the number of usable recordings for agent evaluations

## Flexibility

Process large amounts of data in minutes via our customisable SDK

See IRIS Clarity Studio  
in action  
[iris.audio/studio](https://iris.audio/studio)



Deployed by:



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