

The Advantages of the PRESENCE™ Headset and the SpeakFocus™ and WindSafe™ Technologies

WHITE PAPER



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Challenges of modern business communication

The way we work is changing rapidly. Today, work has become an activity instead of a place and the current trend towards total mobility 24/7 is having a profound effect on the way we communicate.

First and foremost, technology has been the catalyst for this increased level of flexibility and mobility. The new, accessible mobile technologies have pushed the limits of our expectations and what began with consumer electronics is now quickly turning into a major breakthrough for mobile corporate communication.

An employee wants to be able to work in the office, at home, on the move or at a meeting with a client. In other words, companies who want to attract the innovative and mobile workforce of tomorrow have to change today.

In the modern office, employees tend to move around the workplace a lot more freely. Conferences, collaborative groups, flexible seating and working from home require a new level of mobility. Technology has not only changed the behaviour and the expectations of the workforce; it is also changing the workplace.

Furthermore, a phone is not just a phone anymore. Calls can be received via mobile phones, PC and other channels enabling the user to be accessible wherever and whenever while simultaneously providing maximum comfort. This is only possible when the chosen technological communication platform allows the user to switch quickly and effortlessly from one type of call to another.

Finally, the users of modern communication devices expect perfect sound quality and ease-of-use. The days of thick manuals and lengthy instructions are long gone. Add this to the above-mentioned challenges, and the time has come for new products that are tailor-made for the age of Unified Communications.



Hear and be heard with PRESENCE™

Imagine a product that addresses all the challenges of modern, mobile communication in today's corporate environment. Imagine a product that works seamlessly across communication platforms at the office, at home, at the client or on the road. Now, add superior sound quality and ease-of-use to the mix.

This was the challenge facing the researchers and engineers at Sennheiser. In order to create a headset for modern enterprises and for a rapidly changing workforce it was necessary to rethink existing technologies and to come up with innovative solutions.

Sennheiser PRESENCE™ is the result – a headset made especially to suit the needs of Unified Communications; a headset for efficient working that does not tie the user to a particular desk or office space. The uncompromising sound quality can be enjoyed wherever and whenever the user's presence is required.

Optimized for ease-of-use

In a Unified Communications environment the user typically switches between mobile and softphone calls. In order to provide the user with the best of both worlds, Sennheiser's new PRESENCE™ headset boasts multi-connectivity to make that switch as easy as possible.

PRESENCE™ comes with a dongle for the PC to connect the headset with the softphone (UC client).

Users will also appreciate extended performance which, with up to 10 hours talk time between charges, allows for a full day's uninterrupted talking at work. Furthermore, for maximum convenience and efficiency, the user can monitor battery status via an iPhone.

PRESENCE™ features plug and play compatibility with all leading UC platforms. Sennheiser PRESENCE™ integrates seamlessly with the chosen UC-setup and offers employees mobility, comfort and sound quality in addition to the existing tools they have at their disposal.

Increased range is another useful feature. The Bluetooth 4.0 class 1 standard enables the user to receive calls up to 25 meters from the softphone. The result is increased mobility at the office and fewer missed calls from customers.

A distinctive premium "look and feel" with an aluminum boom arm and integrated on/off function make wearing PRESENCE™ a daily pleasure. The voice prompts have been reworked as well and these provide the user with relevant information that is easy to understand in the workday bustle.

In short, PRESENCE™ is a lightweight, well-built headset designed for the efficient workforce of today. True multi-connectivity, increased range, extended talk time and maximized UC plug and play performance add up to a comprehensive solution.

Range
25 meters



Superior sound quality with SpeakFocus™, WindSafe™ and own-voice detection technologies

The engineers at Sennheiser have been dedicated to sound quality for decades. The Pursuit of Perfect Sound is the credo that has provided the brand with global leadership in sound technology. The Sennheiser qualities are more prominent than ever in the new headset because the latest research has provided product developers with new options.

This time, the engineers and developers did not stop at the HD voice clarity that has characterized Sennheiser products for years. They built a new design from the ground up that features 3 digital microphones in 1 headset. This is a world premiere from Sennheiser's side that provides the user with ground breaking advantages.

Advantages of the unique 3 digital microphone system

Sennheiser has produced a unique system with the advantage of three digital microphones. To achieve the best possible audio performance it is important to have microphones that match each other in terms of sensitivity and frequency response.

The reason why Sennheiser uses digital microphones is because they perform more equally compared to analogue microphones. When combined they are also more robust and less prone to drift over time. This is a big advantage in terms of the beam-forming functionality of the PRESENCE™ microphone array.

PRESENCE™ blocks out surrounding noise by using the 3 digital microphones to zoom in (beam forming) on the mouth (the user's voice). After beam forming, PRESENCE™ utilizes various noise reduction algorithms for dealing with stationary noise (same sound over time, e.g. a fan), non-stationary (different types of sound over time, e.g. a person walking on high heels, the sound of someone typing on their PC, etc.), and wind noise. In any given situation, the system will use intelligent environmental estimators to mix the best possible combination of sources to a single output signal.

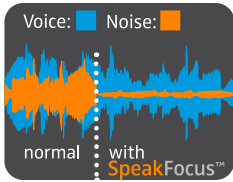
In the past, products have not been that intelligent and have only been capable of handling one environment at a time. What's new about the PRESENCE™ system is its use of intelligent environmental estimators that not only identify a single environment (e.g. a car, a windy car park or the sound of an office) but also combine the different environments (e.g. driving a convertible (car environment + wind environment) to maximize sound quality and deliver the best possible audio performance. PRESENCE™ provides a seamless audio transition from one environment (or a combination of environments) to another.

PRESENCE™ also has its own user voice detector that supports the noise reduction algorithms. The advanced own-voice-detector continuously monitors the environment to determine whether the user's own voice is present or not. When detected, the state-of-the-art system reacts immediately to provide optimal speech intelligibility while at the same time reducing disturbing background noise.



SPEAK
FOCUS™

WIND
SAFE™



**SPEAK
FOCUS™**



**WIND
SAFE™**

EXPERIENCE SPEAKFOCUS™ TECHNOLOGY

Test the difference SpeakFocus™ makes in the office:



Sound without SpeakFocus™



Sound with SpeakFocus™

EXPERIENCE SPEAKFOCUS™ TECHNOLOGY

Test the difference SpeakFocus™ makes in the car:



Sound without SpeakFocus™



Sound with SpeakFocus™

EXPERIENCE WINDSAFE™ TECHNOLOGY

Test the difference WindSafe™ makes:



Sound without WindSafe™



Sound with WindSafe™

When the user's own voice is not detected, an integrated feature automatically and gradually diminishes all distracting background noises, such as keyboard or paper rustling sounds, to make the communication experience even more enjoyable for the listener. As soon as the user starts speaking again, the intelligent system reacts instantly to deliver optimal speech quality.

The noise reduction algorithms, intelligent environmental estimators, own-voice-detector and signal mixing have all come from Sennheiser's 70 years of audio knowledge. The result is PRESENCE™, a unique product with superior audio performance for professionals who require the best.

The 3 digital microphones provide the listener with a consistently clear sound and enhance the Sennheiser HD voice quality. Furthermore, they help pave the way for innovative use of new noise-cancelling technologies like SpeakFocus™ and WindSafe™ that contribute to an even higher level of user comfort and a greater degree of mobility.

SpeakFocus™ technology is a remarkable improvement for both the user and listener. The listener receives all important details of the call with fewer misunderstandings no matter where the user is. The technology zooms in on the user's voice, works in all sound environments and adapts intelligently whatever the environment - for instance in the car, in the office, at a seminar or at the airport.

WindSafe™ technology effectively reduces wind noise and thus reduces one of the biggest sources of annoyance for the listener at the other end of the line. It does so by choosing the best mix of the three microphones and processes the sound to find the best way to balance and enhance the user's voice.

The combination of WindSafe™ and SpeakFocus™ provides the user with an unprecedented freedom of movement and a remarkably clear sound quality that both colleagues and customers at the receiving end will benefit from through fewer misunderstandings and interruptions.

Furthermore, PRESENCE™ is equipped with ActiveGard® technology that protects the user from acoustic shock by reducing sudden sound surges. The reduction of acoustic bursts limits the sound pressure and keeps the volume of sound peaks at a safe and comfortable level.

All in all, the innovative features of PRESENCE™ take user comfort to a new level. One by one, the ground-breaking sound technologies eliminate some of the drawbacks associated with traditional headsets, replacing them with crystal-clear voice quality. By designing the ideal tool for the efficient workforce of today, Sennheiser is able to provide users with a new level of mobile freedom, enabling them to be understood by listeners in all kinds of environments.



PRESENCE™

– the flexible communication solution

Both the modern workforce and workplace are changing rapidly. The percentage of employees who sit at a desk with both a corded phone and a desktop PC at their disposal is decreasing. Today, employees move around the office more freely, work from home and are often at a meeting or on the road.

For comfort and convenience, PRESENCE™ is designed to maximize user productivity in and around the office. With its optional headband wearing style and charger stand, users can swiftly put it on for calls and replace it in the charger when finished.

Unified Communications is the communication platform of the future because it unites all the communication technologies in one solution and enables a modern workforce to switch effortlessly between the various work environments. With PRESENCE™ you can finally choose a premium headset that is tailor-made for these new challenges.

PRESENCE™ – benefits

- Be heard: SpeakFocus™ technology provides the listener with a rich communication experience
- Wind noise reduction: WindSafe™ technology reduces wind noise dramatically
- Background noise reduction: Own-voice detector optimizes speech intelligibility and reduces distracting background noises
- 3 in 1 innovation: 3 digital microphones in 1 headset is a world premiere
- Multimedia: High quality audio for podcasts and music
- Efficiency: Extended talk time of up to 10 hours
- Mobility: Increased range of up to 25 m depending on device and environment
- Ease of use: Plug and play compatibility with all leading UC platforms
- Increased comfort: A flexible choice of wearing styles and optional headband increase user comfort
- Multi-connectivity: Seamlessly switch between softphone and mobile phone calls
- Hearing protection: ActiveGard® for efficient acoustic shock protection
- Optional charger stand: Keeps the headset handy and charged

PRESENCE™ is an innovative premium headset designed for the efficient workforce of today. True multi-connectivity, increased range, extended talk time and groundbreaking sound technologies add up to a comprehensive solution for mobile professionals.



Technical specifications

General Data

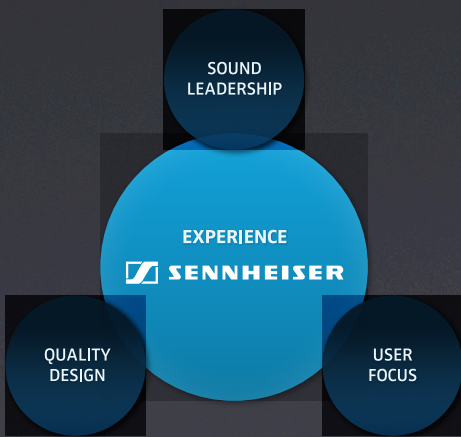
Wearing style	In the ear with ear sleeve, over the ear with an ear hook or optional headband
Technology	Bluetooth® Version 4.0 / Supported profiles: HSP 1.2 + HFP 1.6 + A2DP 1.2
Talk time	Up to 10 h
Charging time	1 h 20 min
Standby time	14 days
Range	25 m / 82 feet (device dependent)
Weight	13 g / 0.46 oz (without ear hook)

Microphone

Microphone type	Digital MEMS microphone (3 microphones)
Frequency response – communication/telecommunication	150–6.800 Hz

Speaker

Speaker type	Dynamic, neodymium magnet
Frequency response – multimedia	100–15.000 Hz
Sound pressure	Max 118 dB (SPL) limited by ActiveGard®



Experience Sennheiser

Perfection is always relative: Users have different expectations from their headsets and speakerphones depending on their needs. For professional users, that need is to communicate as effectively as possible.

With Sennheiser's range of headsets and speakerphones, the combination of Sennheiser sound leadership, quality design and build – and a focus on real life usability – give the best performance possible in offices, contact centers and Unified Communications environments.

Please visit us at: www.sennheiser.com/cco



Sennheiser is one of the world's leading manufacturers of headphones, microphones, wireless transmission systems and high-quality headsets for both business and entertainment.

Drawing on the electro acoustics expertise of Sennheiser and the leading hearing healthcare specialist William Demant, Sennheiser Communications' wireless and wired headsets and speakerphones for contact centers, offices and Unified Communications professionals are the result of Sennheiser's and William Demant's joint leadership in sound quality, design, wearing comfort and hearing protection.

Sennheiser Communications A/S

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