

TeamConnect Wireless – for successful meetings in any room

Mobile audio conferencing solution for 4 to 24 participants /

Automatic setup in less than a minute /

Bring your own device: connect external participants via smartphone, tablet or PC / High-end sound quality for rooms without fixed-installation conferencing systems



Cross-site meetings are booming, both at multinational corporations and at small and medium-sized enterprises (SMEs). Everywhere you go, more and more employees are coming together to form dynamic teams to tackle project-related tasks at lightning speed. To succeed, they need high-performing communications solutions that they can use anytime from anywhere – ideally without IT support, if possible. Ad hoc conference calls play an important role in this. With TeamConnect Wireless, Sennheiser is launching a mobile audio conferencing solution that can transform any space into a professionally-equipped conference room in less than a minute. This gives companies an inexpensive way to meet the rapidly growing need for ad hoc conferences and take full advantage of the potential that their meeting culture offers for their success.

It is indeed a paradox: While the number of meetings has skyrocketed at nearly every company, the conferencing technology to support them has been the same for years. This is especially true when it comes to flexible ad hoc meetings – whenever changing teams take an impromptu moment to meet in an available room that does not have a fixed-installation conferencing system. If, for example, you want to consult experts from outside the company to solve more complex issues facing your project or discuss a new business plan, you often end up spending the first five to ten minutes of your meeting setting up the microphone and speaker system you brought with you and dialing up the people you want to join your conference call. Once you have connected the call, the meeting is often plagued by poor sound quality that makes it very difficult for participants to understand each other. While the transmission of people’s voices on the phone may be more or less acceptable in the conference room, the participants on the phone are the ones who have the most difficulty following the discussion and understanding what is being said.

Speech comprehension can impact the benefit of a meeting

The consequences of these shortcomings are dramatic, as indicated by the experiences of 155 top managers in the U.S., Britain, Germany and Singapore surveyed by the market research organization Millward Brown in early 2016. More than two-thirds (69%) of the managers said that adequate speech comprehension played a far more important role in the success of a meeting than video quality. As part of the study, which was conducted on behalf of Sennheiser, the global market research team also asked how important cross-site meetings were in today’s everyday business world and how well the current technology was doing in meeting users’ expectations.

The respondents made it crystal clear that audio conferences were growing increasingly important. Of the managers interviewed, 83% said that meetings aimed at flexibly bringing together experts from numerous different sites were very beneficial for business and underscored the factor of time saving in particular. Approval is also growing at boardroom level and in senior management. Nearly half (48%) of managers already spend at least three hours a week in cross-site audio conferences.

Enablers and preventers on the road to an intensive meeting culture

The actual number of meetings is strongly correlated with business expectations. The more positive a manager’s view of their company’s future prospects, the more meetings are held. But the quality of the conferencing

technology available also has a significant influence on its use. The ability to clearly understand the spoken word plays a vital role. At companies that hold frequent meetings and are highly connected, 62% of respondents said that they could understand the people they were talking to via their conferencing system well or even very well. At companies that tend not to hold frequent meetings, that same figure was only 47%. A majority of the managers at those companies tended to rate the common systems as an obstacle (“preventer”) rather than as a helpful tool (“enabler”).

The ability to manage the technology and audio limitations were both named as significant obstacles. While excessive technical complexity, such as the amount of time needed to set up the conferencing system or a complicated process for connecting callers, can end up shortening the amount of time actually spent being productive in meetings, poor sound quality tends to be an unwanted distraction that limits the impact and success of meetings. After all, the worse the sound quality, the more intensely participants have to concentrate on being able to understand what is being said. In situations like this, they have little time left over to process the actual content of the meeting and weigh in with their own ideas. For external participants joining the conference by phone, the challenge is often even greater. In addition to simply understanding what is being said, they also have the mental task of correctly matching the voices to the people talking. This task creates an additional distraction from the true objectives of a meeting.

Stopgap solutions quickly reach their limits

A look at the status quo clearly shows that the communications solutions available far too frequently limit the growing potential to benefit from flexible, cross-site meetings. This discrepancy becomes particularly noticeable whenever employees are looking to use rooms in which there is no fixed-installation conferencing system. It is a situation that often tests participants’ ability to improvise. The preferred tools are Bluetooth speakers and smartphones. By connecting them, employees attempt to create a conference-like atmosphere that more or less makes it possible to work across different locations.

This kind of stopgap solution may be manageable for small groups of two to four participants – provided that those present in the conference room remember to speak directly into the only available microphone. But once meetings start to involve more than four persons, a makeshift solution such as this is clearly no longer capable of giving external participants an

understandable impression of what is being actually discussed in the conference room.

TeamConnect Wireless – flexibility is the key

To create an alternative that is as high-performing as it is user-friendly, Sennheiser has developed the TeamConnect Wireless mobile conferencing system. From the user’s perspective, TeamConnect Wireless consists of four handy satellite units, each of which features two highly sensitive microphones and a powerful speaker. The high-quality wireless satellite units can be set up anywhere in the room, where they record what the conference participants are saying and transmit their voices to the callers in Sennheiser quality.

One of the wireless satellite units is equipped with additional RF and audio technology and acts as a master unit. It mixes the microphone signals from all the satellite units to create a homogeneous sound level. The master unit transmits the audio signal via Bluetooth, USB or jack to one or more devices of the participants’ choice, which then manage communication with the external participants. These devices – smartphones, tablets, PCs or land-line telephones – are used to administer calls.



Up to 24 participants in a single room – and more

Meeting participants are free to choose how many satellite units they want to use, depending on the size of the room. To achieve the outstanding sound quality that people expect from a Sennheiser product, it is recommended to set up the satellite units in such a manner that no one in the room is more than 2 meters away from a unit. Field tests demonstrate that it is possible to record up to 24 participants in a normally furnished room without a hitch, with six people sharing a single satellite unit.

The limit of 24 users is an estimate designed to reflect typical real-life situations, according to the developers of TeamConnect Wireless. However, the actual number of users may be significantly higher, depending on the shape of the room and how it is furnished.

Automatic setup

At the start of the meeting, remove the number of satellite units you need from the transport case, which comes standard and also acts as a charging station. The satellite units power up once you take them out of the case. They automatically connect to the master unit within 15 to 20 seconds and communicate with it using the Digital Enhanced Cordless Telecommunications (DECT) standard.

The system switches on, boots up and establishes a connection automatically. What is more, the satellite units also automatically power down and switch themselves off completely when you put them back in the case once the conference is over. The combination of the automatic on/off and charging functions is a genuine innovation that was developed by Sennheiser especially for TeamConnect Wireless.

Intuitive use

As a result, users do not need any technical expertise to set up TeamConnect Wireless in the room of their choice. The satellite units automatically record sound and transmit callers' voices without those present having to change settings or mix sound in any way, eliminating the need for active management of the conferencing technology during the conference. The only thing that users actively have to do is set the volume using the touch pad on the satellite unit. Simply swipe the volume control function displayed on the screen to change the volume. In addition, the microphones can be temporarily switched off, or muted. All you need to do to mute the entire system for confidential conversations is tap the center of the touch pad.

The set-up process is therefore limited to placing the satellite units in the conference space so as to ensure that they are no more than 2 meters away from the participants speaking. A distance greater than that would result in the satellite units automatically adjusting their sensitivity to pick up voices and transmit them at the same volume, which would unavoidably make background noises (such as fans and ventilation systems) more audible.

Connectivity

You can connect an unlimited number of conference participants. The only factor you have to worry about is the capacity of the conference solutions in use. Up to three different devices can be connected at the same time to add external participants to the meeting. To make this possible, TeamConnect Wireless offers separate audio channels for Bluetooth, USB and jack connections. The automatic mixer built into the master unit mixes the signals from the three audio channels, which can be used at the same time, to create consistent sound.

All three connection options make it possible to add callers during the conference. This capability is a must, especially during top-level management meetings. According to the Millward Brown study, 39% of the managers surveyed want to be able to add participants, such as their companies' heads of R&D or marketing, to the conference call at any time. An additional 54% said this capability would be useful.

Adding callers with their own devices

The connection process is carried out with the user interface of the devices that the physically present participants wish to use. From the perspective of many users, the near field communication (NFC) function of their devices is the easiest way. NFC pairing uses the Bluetooth wireless transmission standard. At the beginning of the conference call, all that users need to do is check whether their device's NFC function is active. To join new callers into an existing meeting, a user has only to hold their mobile device briefly over the NFC symbol on the master unit. A distance of one to two centimeters is sufficient.

Info box: Master unit

The master unit is the central communication interface. It is easy for all participants in the conference call to recognize it, because it has an extended touchpad. In addition to the symbols for volume control and the mute function, the Bluetooth icon, the NFC icon and icons for connections via USB and jack cable also appear on the touchpad. Inside the casing of the master unit is a real innovation: For the first time, it features a single component capable of supporting both Bluetooth and DECT. The specialists from the Sennheiser Business Communication division did groundbreaking work to accommodate both of these transmission standards in the smallest of spaces.

The link to the master unit can also be established manually if a Bluetooth-capable device does not offer NFC pairing. The only thing users need to know is where to find the Bluetooth connections on their smartphone, tablet or notebook. Under the corresponding menu item, they will see a list of the devices that can currently be reached using Bluetooth. The TeamConnect Wireless master unit will appear in this list under the entry “TC-W”, followed by an underscore and the set ID. Activating this entry will establish the connection.

Info box: Set ID

Each TeamConnect Wireless system has a specific set ID. This ID is found under each one of the four units. The master satellite communicates exclusively with the three satellites that share its ID – with each such group forming a closed system.

In the unlikely event that it is not possible to establish wireless communication using NFC or Bluetooth, users can also connect their mobile device using a jack cable. To do so, they must insert their device’s headset connector into the jack socket of the master unit. The master unit’s USB port provides a fourth means of connection. In practice, this option is especially suited to connecting desktop computers, video conferencing systems and landline/IP phones. As an alternative to the USB option, landline/IP phones can also be connected using an optional adapter cable.

“Bring your own device” approach reduces the burden on the IT department

In all three cases – Bluetooth, USB and jack – users establish the connection with the master unit from a device of their choosing. As a result, TeamConnect Wireless supports the “Bring your own device” (BYOD) approach, which enables users to control business processes with devices they are already familiar with.

For the IT department, the use of TeamConnect Wireless entails neither more work nor greater complexity. Since the satellites connect automatically to create a functional conference call solution, no additional support requests arise during real-life operation. The same holds true for the effort and expense involved with providing instruction and training on how to use the solution. Such concerns are now a thing of the past, since all

of the components are completely intuitive to use and the process of connecting callers is carried out with devices that the users already know.

Field tests have shown that the overwhelming majority of users can even manage without a manual. TeamConnect Wireless therefore satisfies one of the key requirements that top management in particular also has with regard to user-friendly meeting technology. In the accompanying market research study, 55% of the managers surveyed noted intuitive operation as an important concern.

Efficient use in a wide range of spaces

TeamConnect Wireless is typically used in spaces where permanently installed conferencing technology is not a viable option from an economic standpoint. In view of this, the system is suitable for hotels, conference providers and business lounges, for example, for opening up the possibility of additional meeting locations at a minimum of fixed costs while providing guests with a maximum amount of freedom to choose.

The mobile audio conferencing solution offers practical applications even in very large spaces as well. Since the four satellites communicate with each other using the high-performance DECT wireless protocol, they can comfortably bridge distances of up to 20 meters away from the master unit. It is therefore possible, for example, to hold ad hoc meetings in an open-plan office. Depending on the needs of the meeting, the system offers the flexibility to include up to 24 participants in a single call.

TeamConnect Wireless also offers a wide range of possible applications in terms of space with regard to sound reproduction. Each one of the four satellites has an optimum sound range of a double radius of six meters. If the loudspeakers are placed at six-meter intervals within the space, the users can enjoy uniform sound quality across 24 meters.



Complete freedom of movement

TeamConnect Wireless shows off its full performance capability in huddle rooms. This concept for utilizing space, which traces back to an idea from Google, provides participants with the greatest degree of flexibility when it comes to arranging the setup of their meeting. For example, all of the furniture and presentation technology inside the huddle room can be moved around freely in order to achieve the best arrangement for a wide range of different meeting purposes.

A key element of the huddle principle is ensuring the participants' freedom of movement – and Sennheiser's mobile audio conferencing solution supports this approach. While conventional audio systems tend to require speakers to remain in a certain spot, the TeamConnect Wireless satellites allow them to walk around the room as they wish. To ensure that the speakers remain consistently intelligible, regardless of their changing locations within the space, the master satellite uses a number of audio algorithms and blends the acoustic signals from all of the satellites to achieve a uniform sound. In addition, the master satellite automatically fades from one microphone to the next as soon as the speaking participants begin to move between the satellites, for example – thereby preventing fluctuations in volume.

In the event that the person speaking leaves the 2x2 meter fields where the satellites optimally pick up sound, participants have the option of placing one of the satellites close to the presentation spot. The satellite then assumes the role of a mobile presentation microphone. It does not matter whether the users choose the master or one of the three other satellites.

Info box: Video conferences

In executive suites, TeamConnect Wireless enhances the acoustics of existing video conferencing systems so that they are at the same high performing level as the visual display technologies that such systems already boast. That the intelligibility of even high-end video conferencing systems still lags noticeably behind is due to the fact that the microphones are almost always installed in the cameras. Thanks to its flexible setup options, TeamConnect Wireless completely compensates for acoustic shortcomings. TeamConnect Wireless docks into the existing conferencing system through the master satellite's USB port and enhances the system's value for the quality of the meeting.

High-quality design

The portable audio conferencing system accommodates the design ethos of contemporary office spaces in terms of shape, look and feel. The aim was to create an elegant, high-quality system that can also fit in nicely with the custom-designed interior of a boardroom. To achieve this, Sennheiser collaborated with the renowned design agency Lunar to completely reinvent the traditional look of conference microphones and loudspeakers.

The result is four circular satellites whose anthracite-colored aluminum casing wraps the entire communication and reproduction technology in an attractive, slightly futuristic mold. The palm-sized satellites, weighing in at 470 grams, are coated with an extremely durable lacquer that is resistant to scratching and perspiration from hands. The robust nature of the surfaces is geared towards the high level of quality seen in Sennheiser's professional handheld microphones, which forfeit none of their original quality and value, even after years of occasionally hard use.

The satellites' touchpads, whose glass surfaces feature a coating that prevents visible fingerprints from being left behind, also boast the same level of high-quality manufacturing. The touchpads serve as the volume controls and indicate the battery level. In addition, the master satellite's

touchpad is used to switch Bluetooth on and off and activate the mute function. Since all of the other functions are performed automatically, the satellites feature an almost button-free design. The sole exception to this is the button at the base of the master satellite that users can press to find out the charge level of the battery.

Equally elegant and durable is the transport and charging case provided. Its materials correspond with those used for the satellites. This results in a complete, business-class system that fits in harmoniously with the working environment of senior management.

Five points of added value

1. Efficiency

- ✓ Wireless audio conferencing solution that turns every space into a fully-equipped meeting room on an ad hoc basis.
- ✓ Maximum number of office spaces can be used as meeting rooms.
- ✓ Flexible use in a wide range of different spaces increases the frequency of use and consequently the solution's return on investment.
- ✓ No training or administrative costs thanks to comprehensive automation of the conferencing processes.
- ✓ Gives companies an inexpensive way to satisfy the rapidly growing need for meetings.

2. Success of meetings

- ✓ Participants are not distracted by administrative requirements.
- ✓ Setup is completed within seconds to extend the amount of actual meeting time.
- ✓ High degree of intelligibility makes it easier for participants to concentrate on the objectives of the meeting.
- ✓ The ability to choose the placement of the microphones (i.e. the satellites) in the space makes it possible for the active speakers to move about freely.
- ✓ The solution can compensate for acoustic shortcomings of existing video conferencing systems and thereby increase the added value of these solutions.

3. Zero administration

- ✓ The automated and reliable system setup process relieves the burden on IT support.
- ✓ Intuitive operation eliminates the need for any training.
- ✓ Bring your own device: Since the participants add callers with their own devices, they take advantage of existing user knowledge.
- ✓ Durable components reduce maintenance expenses and ensure maximum investment security.

4. Connectivity

- ✓ Freedom to choose: Callers can be connected using Bluetooth, USB or the jack.
- ✓ NFC pairing additionally aids establishing Bluetooth connections.
- ✓ Simultaneous audio channels make it possible to add callers even while a conference call is underway.

5. Design

- ✓ Thanks to its high-quality appearance, TeamConnect Wireless fits in harmoniously with even the most prestigious office environments.
- ✓ Completely reinvented look and feel of cutting-edge conferencing technology.
- ✓ Robust materials and excellent workmanship mean the solution does not forfeit its quality and value, even after years of use.