WHICH ONE IS BEST AT SIP MEETINGS?

It’s been a few years since we tested the best that the market has to offer when it comes to IP connected conference telephones. And that’s exactly why it’s high time for another round of SIP for the conference room.

HOW WE DID THE TEST

All the telephones were connected to our testing network to see what they could do in a 25 square meter conference room. We tested how easy they were to use, for example during conference calls. To the extent that extra functions are offered, such as connectivity with computers or recording functions, we tested them. Even though it doesn’t affect the day-to-day use, we also took a closer look at the user interfaces for administration and settings.

Last but not least, we evaluated how the conference phones sounded, both inside the conference room and for the person on the other end. We also tested the sound quality depending on which sound encoder the phones utilize and how they handle interference and conference participants talking over each other or talking from a short distance away from the conference table.

TEST PARTICIPANTS

Aastra S850i
Konftel 300IP
Phoenix Quattro 3 SIP
Polycom Soundstation IP 7000
Aastra’s Conference Telephone S580i was originally made by Revolabs, whose version was named Product of the Year in America by TMC a few years back. It is without a doubt the phone that sets the bar for how a conference phone should work. Instead of one single unit, the S580i is made up of multiple individual components. It’s connected to the network through a wireless base station and also has balanced analogue inputs and outputs for connecting the telephone to a PA system, a video system or a computer. USB ports are included, but unfortunately, they do not serve a purpose. Besides the base station, it has a charging station, wireless speaker, handset, and two wireless microphones. The idea was obviously to offer maximum freedom to place the various components in the best possible location, without having to deal with messy cords. It’s an innovative concept, but in practice it’s complicated.

An unreliable Bluetooth
All call management is done through the handset, which looks like and is as user-friendly as a mobile phone from 2004. There’s a risk that you have to make several attempts before managing to place a call correctly. The usefulness of the wireless speaker is debatable, but the wireless microphones work exceptionally well and can be moved around based to where the participants are sitting at the table. You can also buy a microphone with a clip so that the speaker can move around as they talk without having to worry about sound quality. Worth mentioning is that the microphones send a warning if they are taken outside of the room.

Besides the analogue connection capability, you can connect mobiles, tablets and computers using Bluetooth. It feels very smart and modern, but it did not work at all well with our test phone. S850i crashed and even lost connection to the base station when we tried to connect a computer, and in the end, we just gave up. The manufacturer sent us a replacement that included updated software, but the problem remained.

Too many question marks
From a sound quality standpoint, the Aastra S850i passed but not with flying colours. The sound from the speaker tends to vibrate, especially when we turned up the volume. At first, we suspected that something was loose, but later realized that it was caused by vibrations in the product. The Aastra S850i works best for standard quality calls, but does not fare as well with HD calls. Since it is so easy to place the microphones close to the conference participants, it doesn’t matter that the reception range is smaller than on most landlines. We’d like to applaud Aastra/Revolabs for thinking outside of the box, but the product just doesn’t work well enough and the price tag is prohibitively high.
Konftel 300IP

EASIEST TO USE

Konftel 300IP is an old friend. We’ve tested both this version and previous models of the telephone before with good results. In our last major test, Konftel was pipped to the post, but the hardware and the software have been updated since then and we were excited to see how big of a difference it would make. The 300IP boasts multiple features that no other telephone does - we’ll start with the recording function. The telephone has a slot for a regular SD card and you can push the record button at any time during a call (it’s shared with C, which makes it somewhat hard to see) to begin recording. You can then replay the recording directly on the conference telephone, or remove the memory card and listen to it on a computer instead. It couldn’t be easier to document important meetings.

The best for conference calls
The other unique feature is Konftel’s conference guide. Besides setting up conference calls in the usual manner where each person is added successively, you create groups of set participants in advance. When it is time for the meeting, you just choose the appropriate group and let the phone handle the rest. Once the groups have been created, this is a function that can really reduce the hassle of conference calls. In addition, Konftel 300IP can handle 5 parties on its own, which means that you can usually go without bridges. Our only complaint is that the symbol on the button that starts the guide is very unclear and looks like some sort of a flower or star. No matter what it’s supposed to be, it doesn’t look like something that would initiate a conference call. Something that’s completely missing from the Konftel 300IP is the capability to connect it to a computer, either by an analogue or USB connection. It’s unfortunate and a little bit strange since the other models in the 300 series have a USB port specifically for that purpose. There is however, an AUX output that can be used to connect the phone to a larger speaker system when needed.

Successful development
When we start testing the sound in earnest, we’re pleasantly surprised by the improvements that Konftel made for 300IP. First of all, the telephone does a great job on non-HD calls. Despite the limited frequency range, the sound on the receiving end is full and dynamic. The sound from the speaker has a slightly superficial feel, but is very loud and clear. 300IP also managed HD calls, but regardless of encoder, we didn’t quite experience the same punch that Polycom delivers. The microphone sensitivity is not very good either, which becomes noticeable when you increase the distance between the person speaking and the microphone. Except for the symbol on the conference call button, user-friendliness may be the crown jewel of the Konftel. Menus as well as admin interfaces are easy to navigate and the quick guide in Swedish makes it hard not to like this already handy phone.

Points:
- Sound quality: 8
- Functionality: 8
- User-friendliness: 9
- Price: 8 (SEK 5,300)

Final rating

2014

Konftel 300IP

Easiest to use
WE WERE HOPING to get to test Phoenix brand new The Spider (details on the product news pages). We ended up having to settle for its predecessor Quattro 3, which basically offers the same functionality. The most unique function of both models is the ability to daisy chain a large number of units in order to cover very large meeting facilities. We didn’t have the chance to try this out, but it’s worth bearing in mind. Phoenix doesn’t exactly rely on looks and the Quattro 3 reminds us more than a little of a baseball hat, but we’re not sure how much that really matters. On the other hand, it’s important to note that this is the only phone we tested that offers the ability to connect to computers via USB. This function makes it a smart choice if you need to combine ordinary IP phones with Lync or other software solutions in the same room. In addition to regular 3-way calling, you can also connect a conference where one party gets a call via SIP through the operator and the other is called via USB and your choice of software. With this function, the phone allows you to bridge, for example, Google Hangouts to the telephone network.

Issues with HD sound
Unfortunately, the SIP part of the phone has a multitude of flaws. No other telephones have any problems selecting encoder, but Quattro 3 shuts off every time it tries to establish HD quality calls that it did not initiate. We tried talking to their customer service, but couldn’t solve the problem. In addition, the minimalistic two-row display and keypad without menu or softkeys make the handling of the device unnecessarily complicated for the user. This isn’t helped by the fact that Swedish isn’t available as a menu language. The volume can be adjusted with dedicated buttons on the side of the telephone, but they’re not easy to find if you’re on the wrong side of the phone.

Not in the same class
The speaker sound, which lacks the qualities found in the other telephones, reflects the fact that the Quattro 3 is the smallest phone that we tested. There’s also a slight noise that can be heard when the telephone is not in use, and unfortunately it just grows louder when the telephone is being used. In HD calls, the distance to the other units that we tested becomes very obvious both in the conference room and for the receiving party, as neither the speaker nor the microphones are able to create a real HD feeling. Nor does the SD quality of the Phoenix measure up to that of its competitors but the difference is considerably smaller and in this case, the Quattro 3 actually outperforms them in a single isolated test, namely blocking out the disturbing noise of the ventilation system in the room. We hope that Phoenix manages to improve sound quality and user-friendliness for its successor. If it does, it could very well challenge the current leaders, because the combination of USB and SIP could definitely be a huge benefit for conference rooms.
Polycom Soundstation IP 7000

SUPERB WHEN EVERYTHING IS PERFECT

FOUR YEARS AGO. Soundstation IP 7000 outclassed its competitors in terms of sound quality and the model has a design that still feels fresh. Admittedly, there are a lot of buttons, but the clear symbols make it hard to make a mistake and the four top buttons, which change function depending on what you’re doing, are clearly labelled on the display. The display is relatively large, which allows for a good overview even if you want to change more advanced settings directly on the phone. Swedish can be selected as the menu language, which is a huge plus in the user-friendliness category.

USB without function
IP 7000 can handle 3-way calls on its own and these calls can easily be set up using the special conference button. During the call, you can disconnect or mute one or multiple parties using the buttons on the display. In addition to being used as a stand-alone telephone, the IP 7000 can also be used as a sound unit for Polycom’s video system. On the side of the phone, there is a slot with two promising USB ports. But all hope is lost when you realize that their only function is system maintenance. Instead, there is an analogue 2.5 mm connection to connect computers or mobiles through an accessory cable. We don’t have such a cable, but bearing in mind that our computers are identical to a lot of other current computers in that they have no analogue input, we really would have liked to see an extra USB soundcard. In other words, using the IP 7000 as a sound unit for Lync meetings could be too much hassle. One thing that used to be a hassle for companies with multiple Polycom phones was that they had to have a provisioning server in order to upgrade the software or change certain settings. Thankfully, the manufacturer realized the problem and now allows all administration tasks to be carried out using the web interface. The whole interface has been redesigned and outfitted with contextual help, which is very useful since there are a lot of choices.

The best sound – but not always
Just like four year ago, Polycom delivers fantastic sound quality. The more bandwidth and better codecs we use, the more obvious it becomes that the IP 7000 boasts excellent speakers and microphones. The manufacturer’s proprietary codec Siren 22 gives a sense of presence that no other competitor matches. It’s highly unlikely that you’ll get the chance to use it, but Polycom also delivers the most realistic sound with the ordinary HD encoder g.722. The downside is that it also relays disturbing noise better than any of its competitors. If you take the step down from HD quality to an ordinary g.711, the product continues to provide very good sound quality, but one or two of its competitors have actually done a better job getting more out of the limited frequency range to achieve better sound management.
THE WINNER IS THE BEST FOR EVERYDAY LIFE

WHEN TECHNOLOGY FAILS and sound is bad, phone conferences can be a real pain. But at least half of the products that we tested show that the opposite is true as well. Our winner, Konftel 300IP, gives a convincing sense of presence even when the conditions are not optimal. Calls with multiple parties also start without any hassle.

For internal meetings with good connections, Polycom’s IP 7000 is still our favourite thanks to the exceptional sound quality. At the same time, we can conclude that the SIP models with the latest development in the area of UC have fallen a bit behind. Having a fixed SIP connection as a base means that all users can easily make simple 2-way calls. We would have liked to see a bit more progress from the manufacturers in terms of offering flexible functionality for using the telephones as sound units for mobile units and computers. Analogue cords don’t feel like it’s 2014. Although it fails in other areas, Phoenix is the clear leader when it comes to this. Another failure is Astra’s Bluetooth connection, which simply does not work well enough.

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