

# The future of UC&C on mobile



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# Introduction

*The future of UC&C on mobile* report gives us insight into how operators and manufacturers around the world rate their unified communication and collaboration (UC&C) experiences on a mobile device, and what impact current and emerging technologies will have on the future use of smartphones for UC&C services for the mobile enterprise.

This in-depth report sought the views of large mobile network operators across the world on how they use UC&C services today, and what role they expect mobile devices and features such as high-definition (HD) audio (or HD voice) to play in improving the quality and usability of these services in the future. The report also investigates attitudes towards the use of over-the-top (OTT) applications for UC&C.

This report is split into three broad areas: *current UC&C environment; future trends in UC&C; and OTT apps*. We found that the results highlighted a clear need for education on some aspects in this sector, but also supported the premise that mobile devices and technologies will play a central role in the future UC&C experience.



## Survey overview

With responses coming from across the globe, this report takes into account the views of 333 industry leaders on unified communication and collaboration with a focus on mobile use. The largest segment of responses came from device and network equipment vendors at almost 26 percent, while mobile operators were the second-largest segment at around 24 percent.

Respondents from MVNOs, fixed operators with a mobile business, business service resellers including enterprise mobile, apps and software developers and mobile content specialists also took part in the survey, showcasing the wide range of interest in unified communication and collaboration on mobile devices.

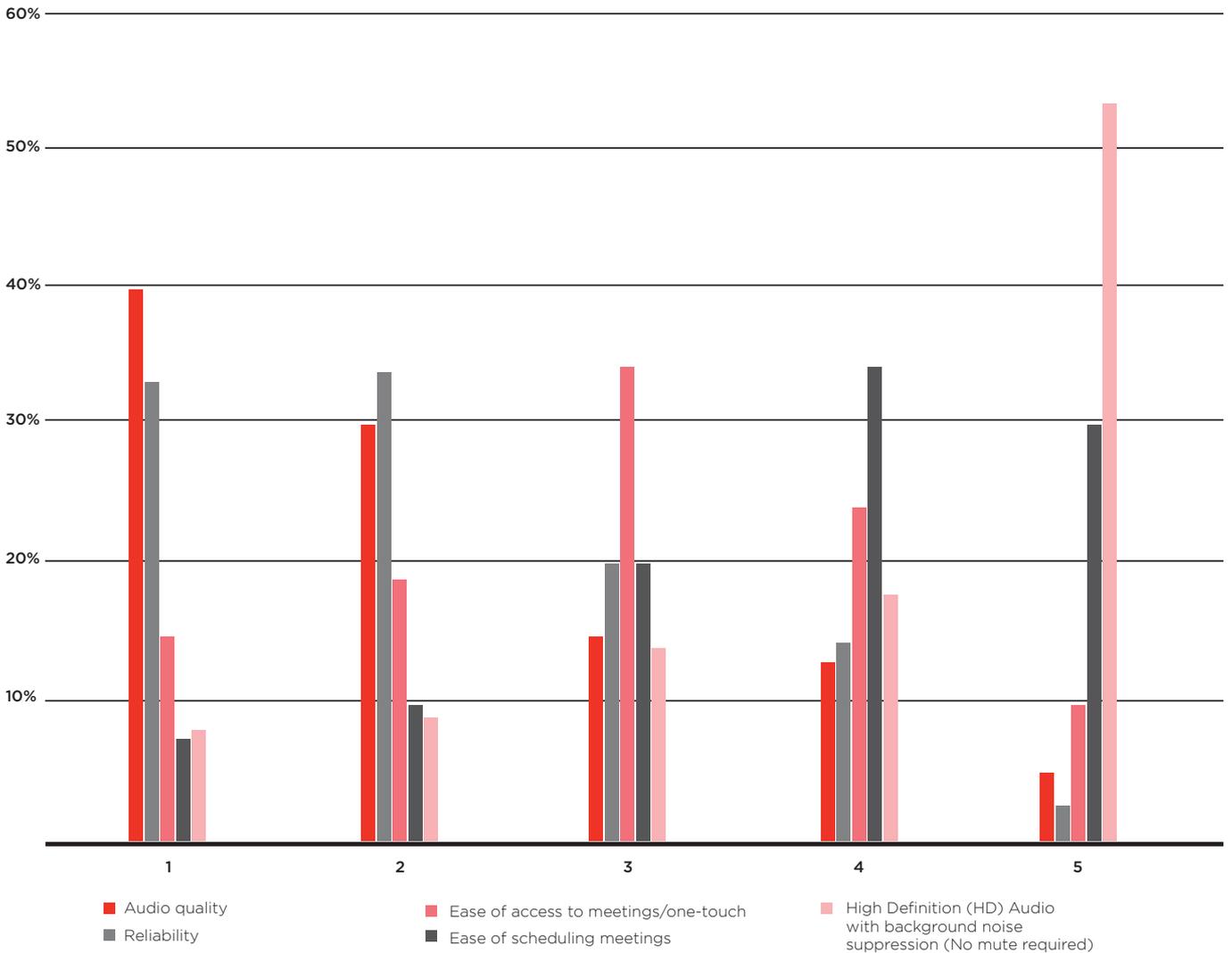
# Current UC&C environment

## More education on role of HD audio

It comes as little surprise to find that the quality of the audio service is ranked as the most important feature to ensure a good UC&C experience. Most of us have experienced barely audible or patchy conferencing services in the past, and improvements in this area are to be

welcomed. Indeed, over 39 percent of respondents rank audio quality as the most important feature of the UC&C experience. Reliability of services is close behind, with almost 32 percent of respondents putting this feature in first place.

## What are the most important features for a conferencing and collaboration experience? (Ranked 1-5)



This question did throw up an interesting anomaly, however. Although audio quality was regarded as the most important feature by the largest percentage of respondents, HD audio with background noise suppression was given a much lower ranking by most respondents. Just 7.6 percent of respondents ranked it as the most important feature and over 50 percent ranked it as the fifth most important feature. Given that HD audio enriches the audio experience and enables crystal-clear voice, this feature would be expected to rank alongside overall audio quality.

This outcome could be owing to a lack of awareness about the impact that HD audio can have on audio quality. It's possible that conferencing participants may not even know that they are experiencing HD audio. However, a direct comparison of crystal-clear HD audio with non-HD audio would fully illustrate the difference this technology can make.

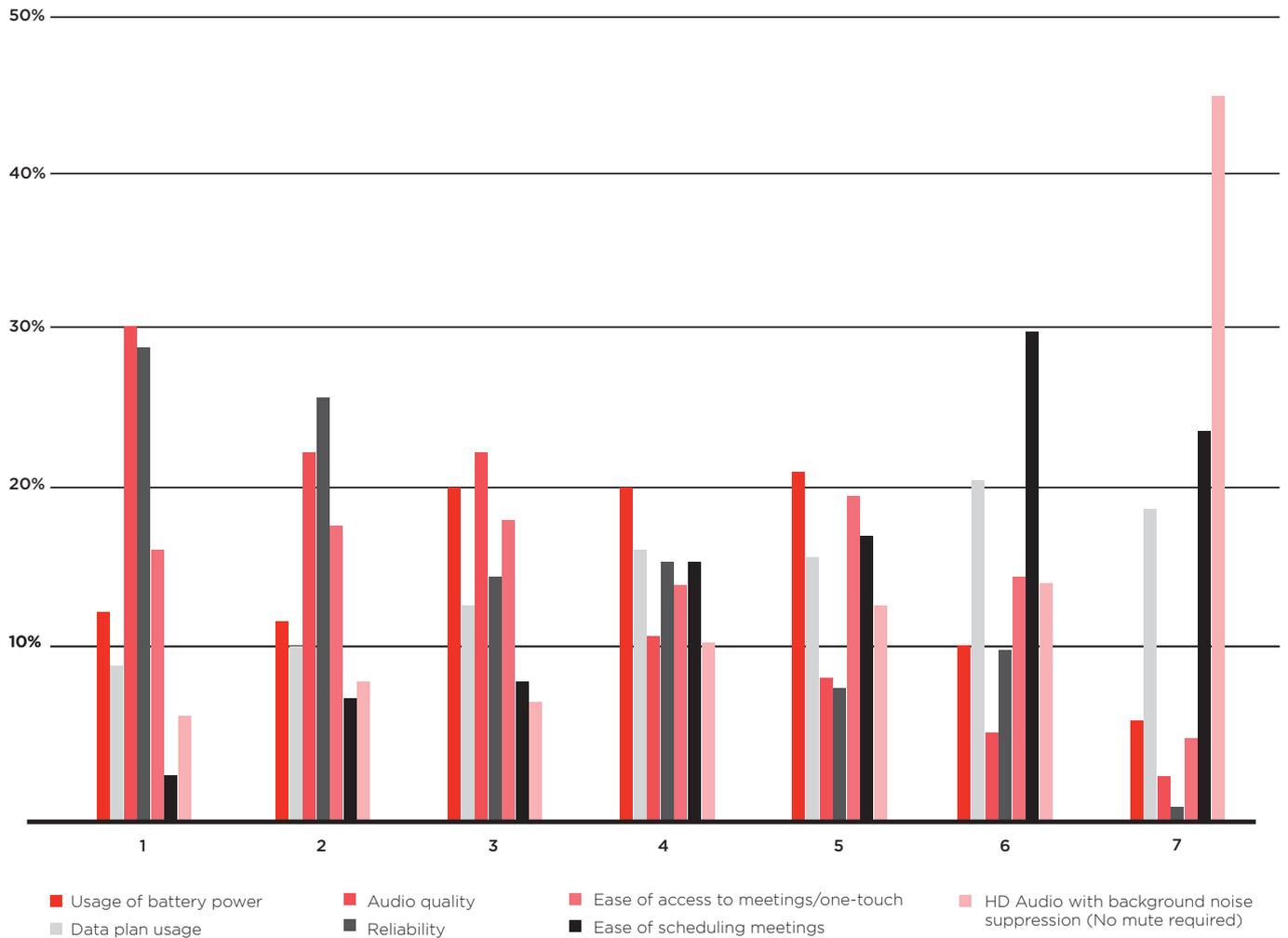
Delivering a naturally sounding conversation via audio conferencing requires sophisticated technologies that can normalise sound levels, filter out background noise — avoiding the need to use the mute button — and balancing audio streams. Once you have experienced audio conferencing using these techniques, it's difficult to accept anything less.

The same anomaly is evident in responses to the question: *What are the most important features for a conferencing and collaboration experience on a mobile device?* While audio quality is again ranked as the most important feature here by the largest percentage of respondents (over 29 percent), only 6.23 percent of respondents rank HD audio as the most important feature (see chart overpage). Emphasis is again placed on service reliability, although respondents seem less concerned about the battery power of their mobile devices or their mobile data plans.

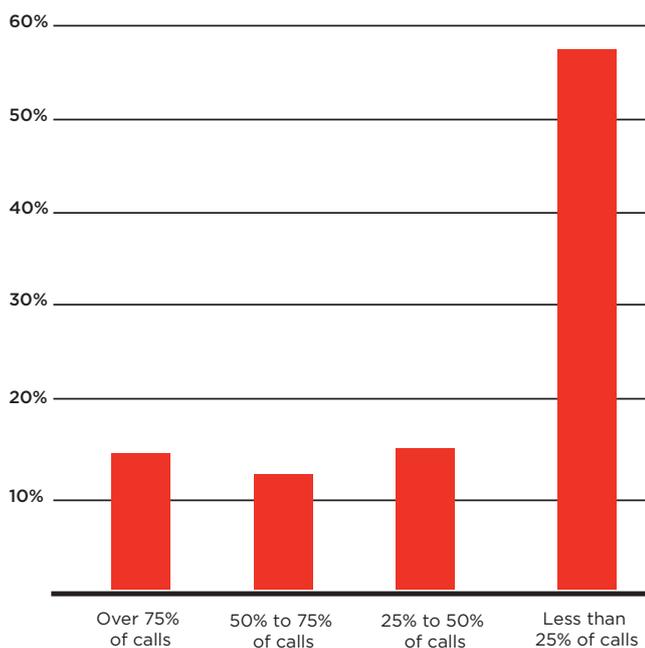
“

The smartphone is now the go-to device for UC&C services, underlining the increasing mobility of workers.”

## What are the most important features for a conferencing and collaboration experience on a mobile device? (Ranked 1-7)



## How frequently do you use your desk phone for conference calls?



In terms of the end-user devices that are currently used to make conference calls, it's clear that the habit of using the desktop phone for conference calls is being consigned to the past. Indeed, almost 60 percent of respondents said they use their desk phone for conference calls for less than 25 percent of calls, while only 15 percent said they use desk phones for over 75 percent of calls.

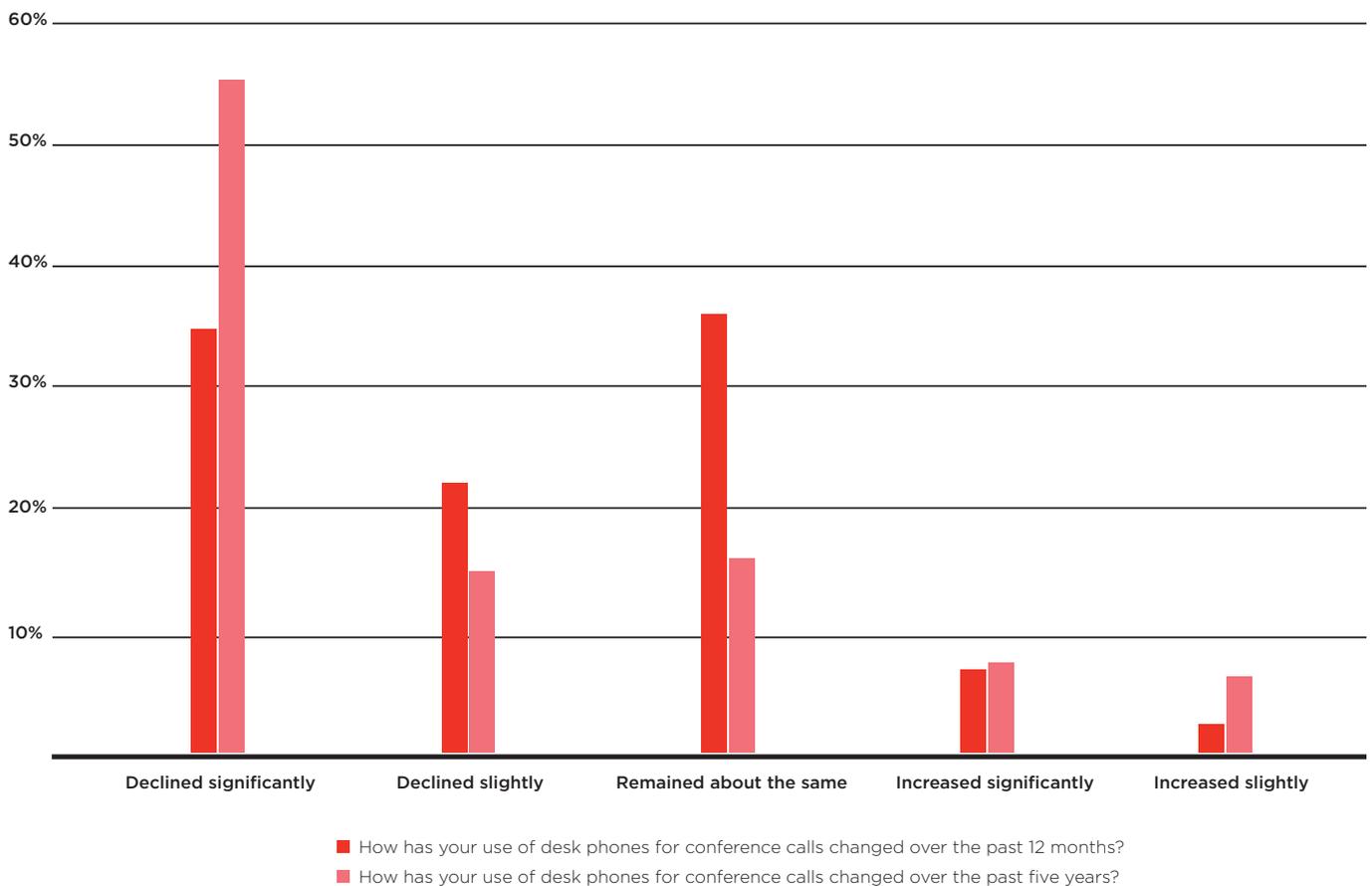


Almost 44 percent of respondents rank the smartphone as their chosen device for conference calls.”

This message was further reinforced by the fact that 55 percent of respondents said their use of desk phones for conference calls has “declined significantly” over the past five years, while over 33 percent report a significant decline over 12 months (see chart below). The fact that about 36 percent of respondents said their use of desk

phones has remained the same over the past 12 months does indicate a certain plateauing of the shift towards alternative devices such as smartphones and laptops, but users are not generally increasing their use of desk phones for conference calls.

### Desk phone conference calls



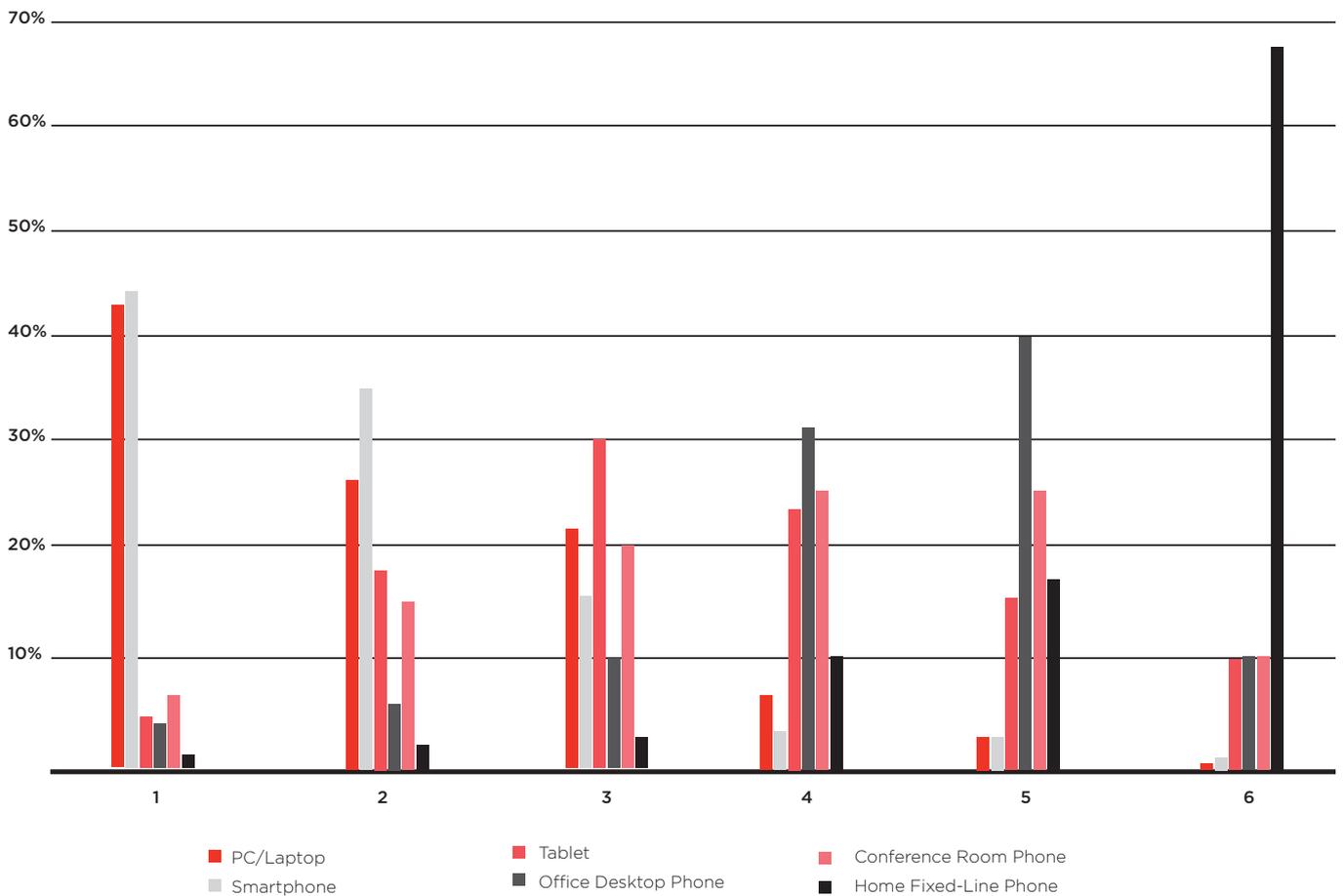
# Future trends in accessing UC&C

## Growing preference for smartphones

Given the declining use of desktop phones for making conference calls, what are the most popular devices for users today? Our survey found that the smartphone is now the go-to device for UC&C services, underlining the increasing mobility of workers and the growing

reliance on mobile devices as the primary communications tool. In fact, almost 44 percent of respondents rank the smartphone as their chosen device for conference calls in the next few years.

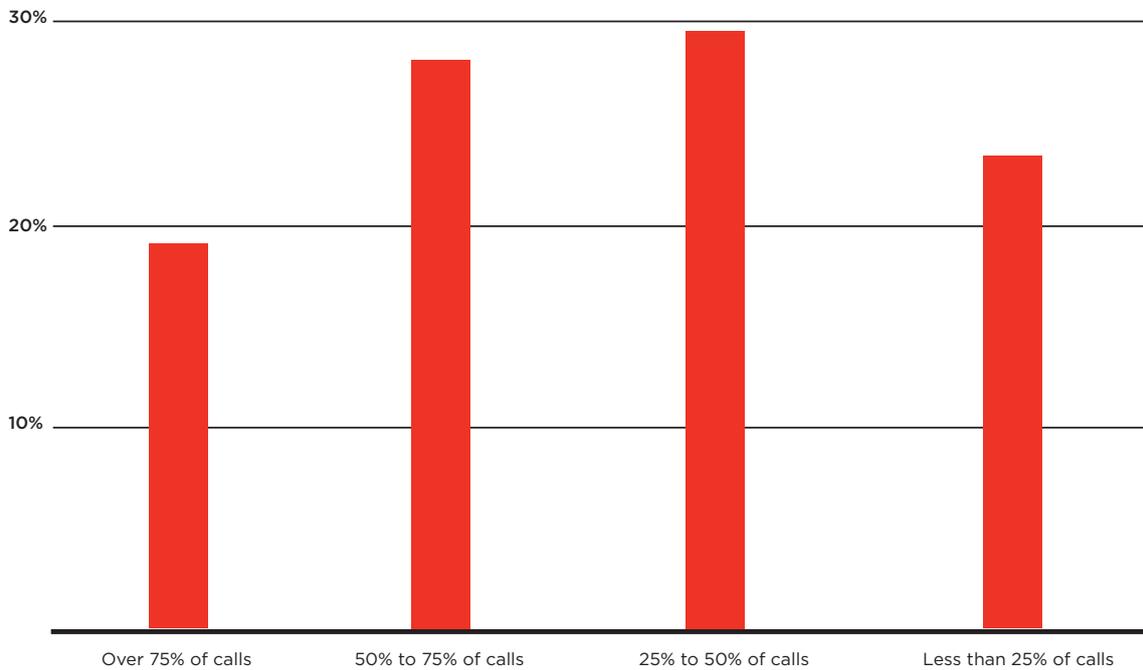
## What do you expect to be your chosen device for conference calls in the next few years? (Ranked 1-6)



The bring-your-own-device (BYOD) trend within the enterprise means that a large proportion of employees have access to a smartphone both at work and at home, making it an obvious and readily available tool for all their communications needs. In general, smartphone adoption has grown exponentially, and further strong growth is expected. According to the GSMA Intelligence report, *The Mobile Economy 2017*, global smartphone connections are expected to rise by 1.9 billion devices from the end of 2016 to 5.7 billion by 2020.

The mobility trend is further illustrated by the fact that almost 43 percent of respondents picked a laptop or PC as their preferred device. Perhaps surprisingly, only 4 percent of respondents selected tablets. However, almost 50 percent of respondents said they require over 50 percent of their conference calls to be made on a mobile device (see chart below).

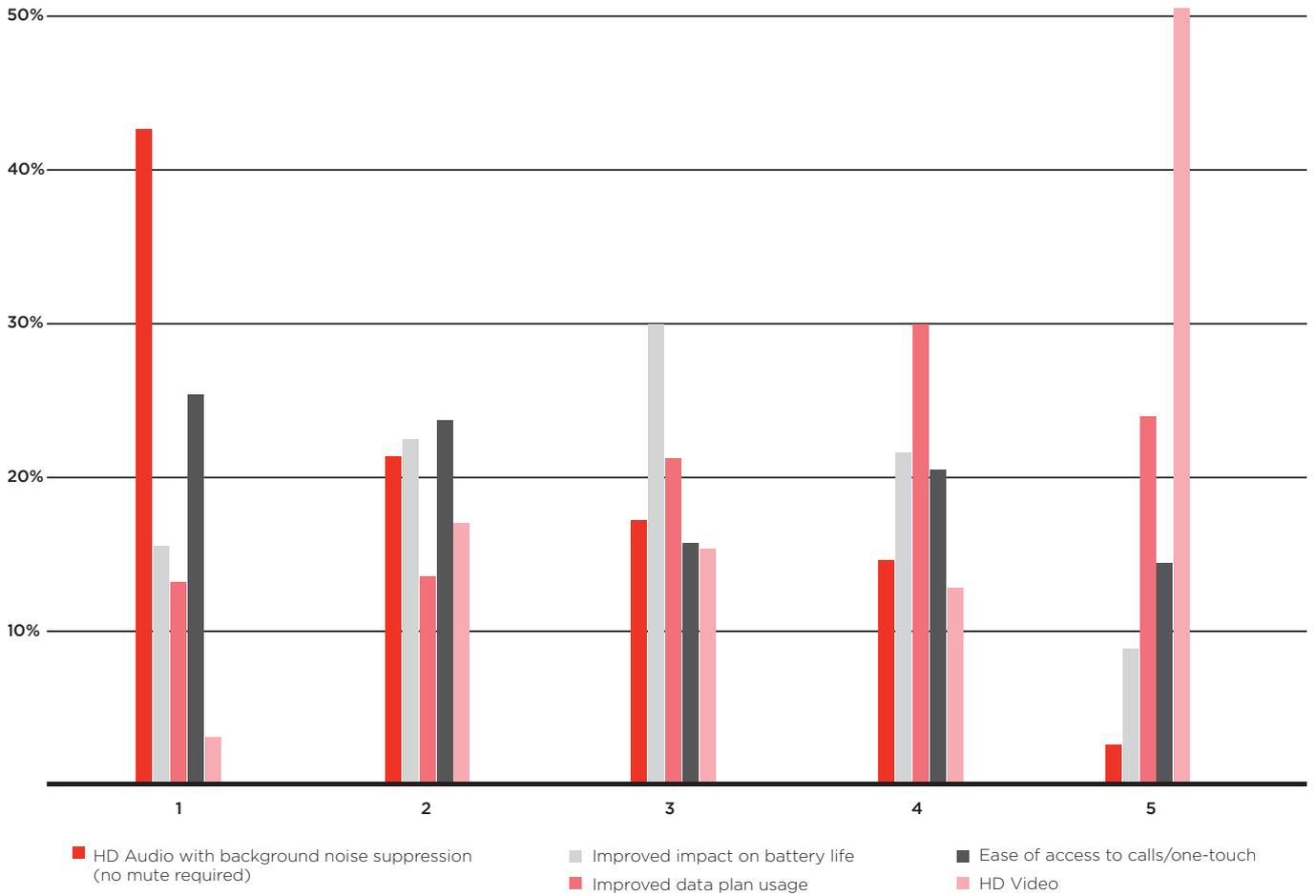
**What percentage of your conference calls do you require to be mobile?**



We also wanted to explore which mobile-optimised features would encourage users to increase how frequently they use their smartphone for conference calls. In light of the anomaly that emerged in question 3 above, it was interesting to note that HD audio with background noise suppression is ranked as the

most likely feature (almost 43 percent of respondents) to encourage greater smartphone use. Ease of access also comes high up in the ranking, with over 25 percent of respondents citing this as the most important driver of smartphone usage for conference calls (see chart on following page).

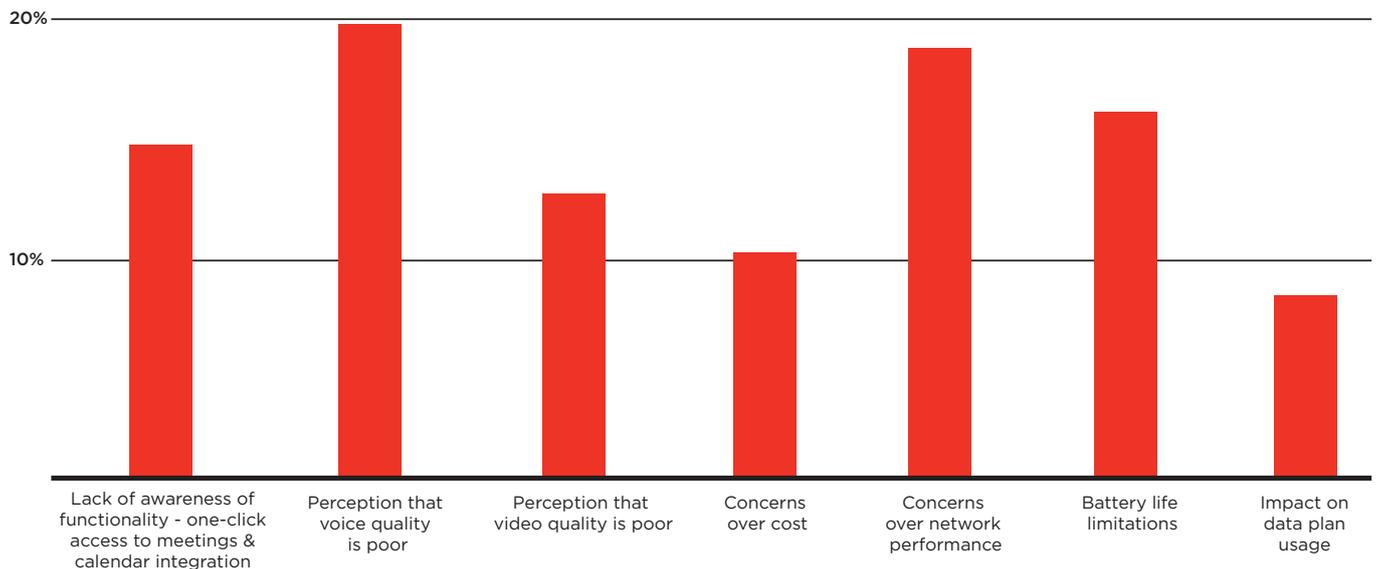
**How likely would the mobile-optimised features below encourage you to increase how frequently you use your smartphone for conference calls? (Ranked 1-5)**



In terms of the barriers to using smartphones or tablets, voice quality again emerges as a primary concern with close to 20 percent ranking this as one of the top three barriers.

Other barriers include concerns about network performance and the limitations imposed by battery life.

**What do you feel are the top three barriers to using smartphones or tablets for participating in conference calls?**



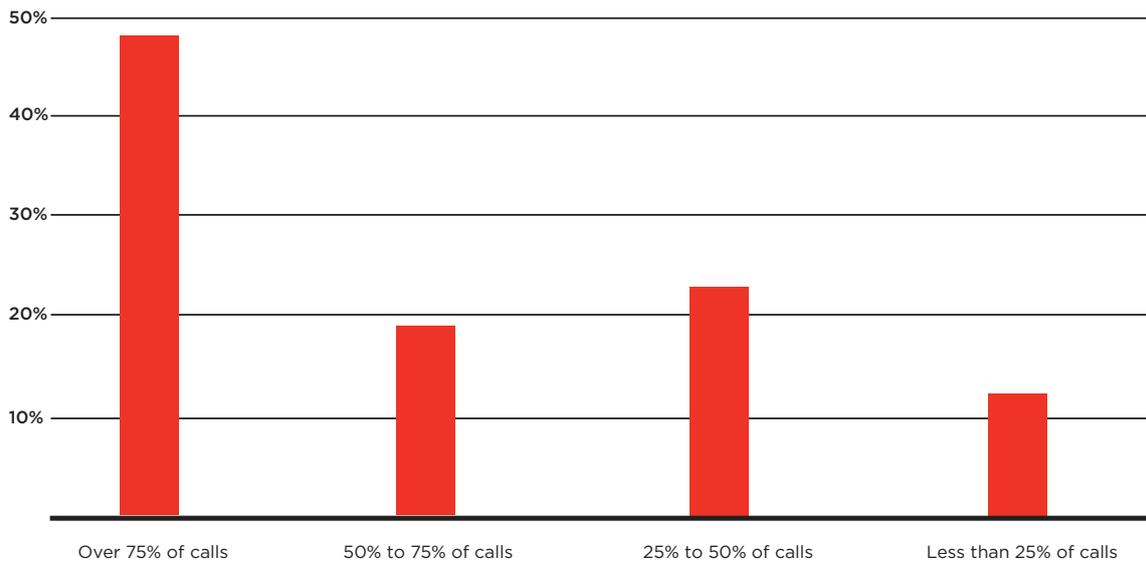
# UC&C and OTT apps

## Over-the-top proves popular for UC&C sessions

Close to 75 percent of respondents said they use over-the-top (OTT) applications for unified communication and collaboration sessions, while close to half of respondents who use OTT apps

said more than 75 percent of their conference calls are over OTT applications. This reflects the huge popularity of OTT apps for mobile communications in general.

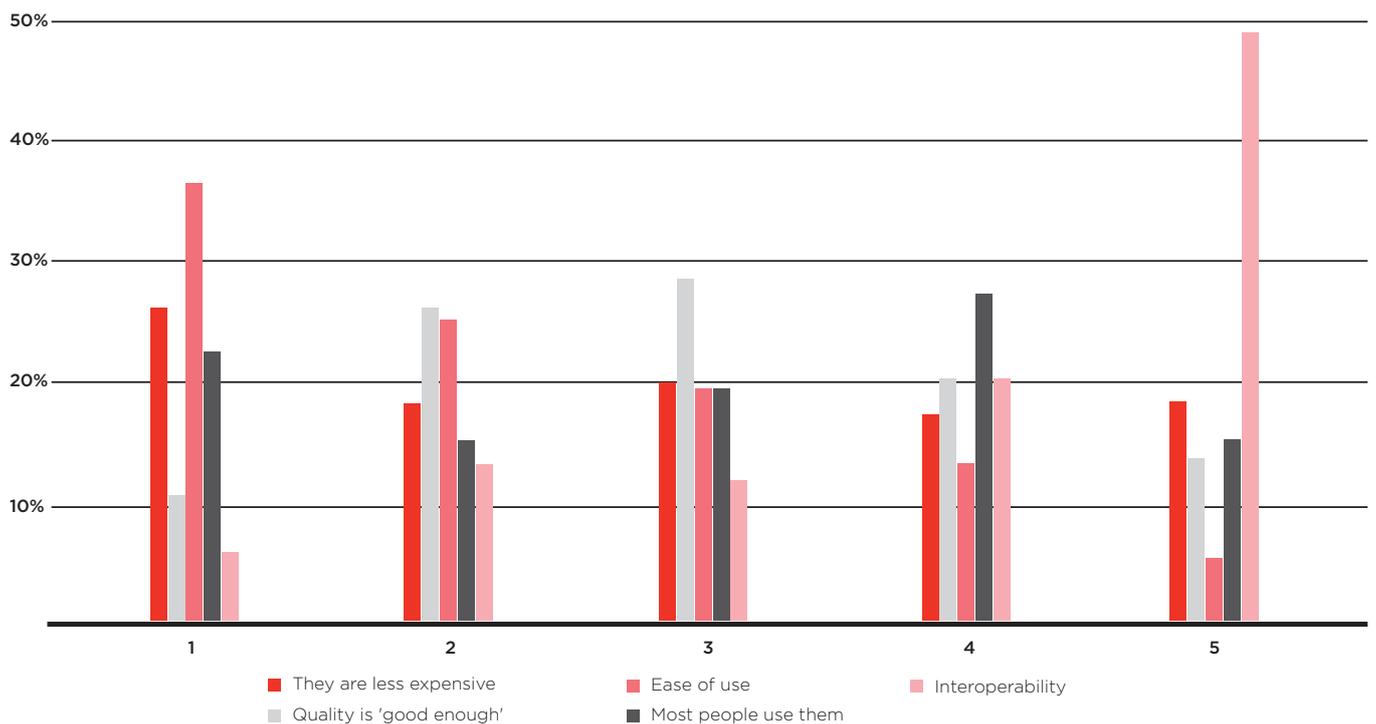
### If you do use over-the-top OTT apps, what percentage of your Unified Communications & Collaboration (UC&C) sessions are over OTT apps?



According to our respondents, the primary driver for using OTT apps is ease of use (36 percent), which is rated as more important than

the fact that OTT apps also tend to be less expensive to use (almost 26 percent).

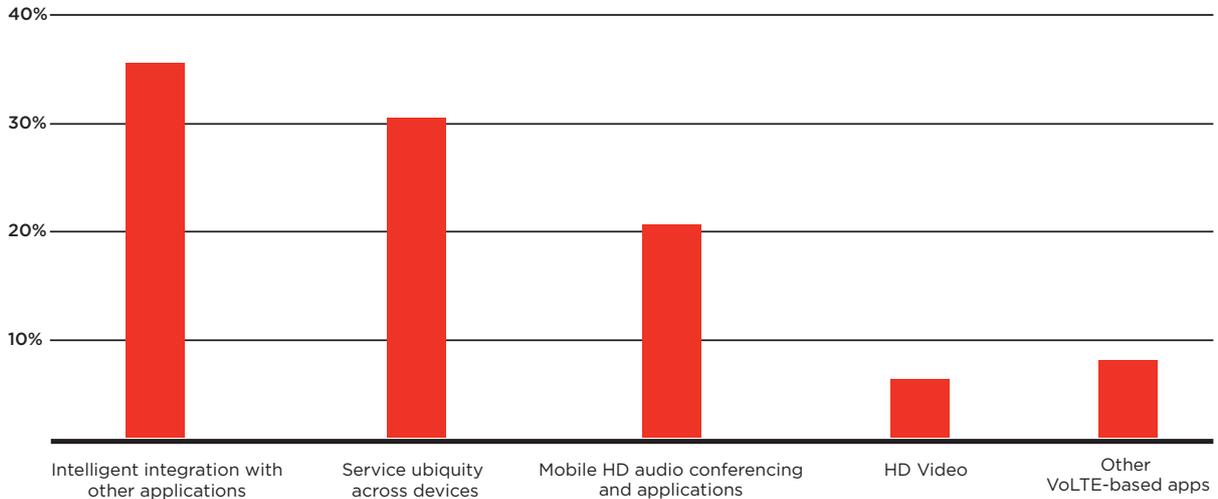
### What are the drivers for using these OTT apps? (Ranked 1-5)



When asked to consider what would be the “killer app” to drive adoption of a mobile-optimised UC&C solution, almost 36 percent of respondents cited the intelligent integration with other

applications, while more than 30 percent believe service ubiquity across devices to be a primary driver.

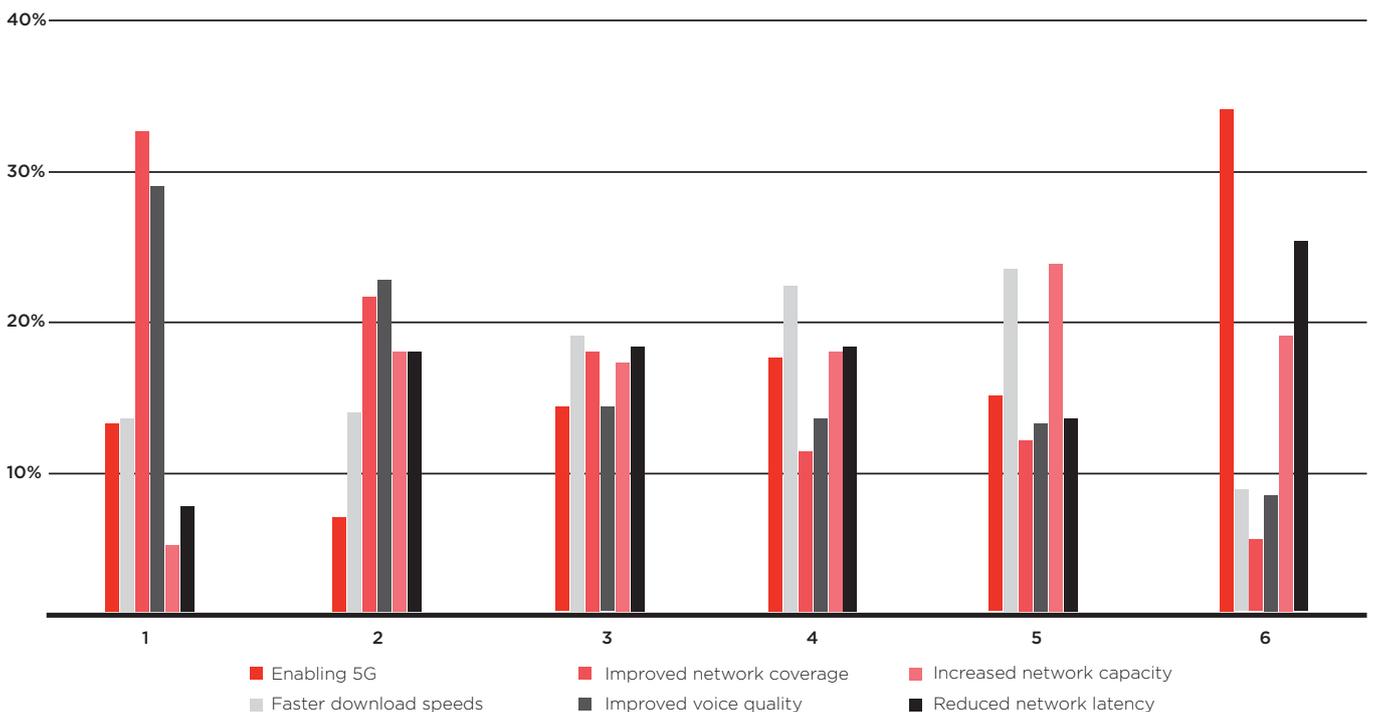
**Thinking about the implementation of mobile-optimised solutions, what would you consider the “killer app” to drive adoption?**



Interestingly, in terms of which network developments would increase the use of UC&C on smartphones, 5G came fairly low down in the ranking with just under 13 percent considering that enabling 5G would be an important driver. Certainly, 5G is still some way ahead and may not yet be on the radar of many users, and 4G and

4.5G networks are still evolving. A much higher percentage – almost 33 percent – believe that improved network coverage would have greater potential to drive UC&C take-up on mobile, while almost 30 per cent cited improved voice quality as an important driver.

**Rank the following network developments in order of their potential to drive the use of UC&C on smartphones. (Ranked 1-6)**

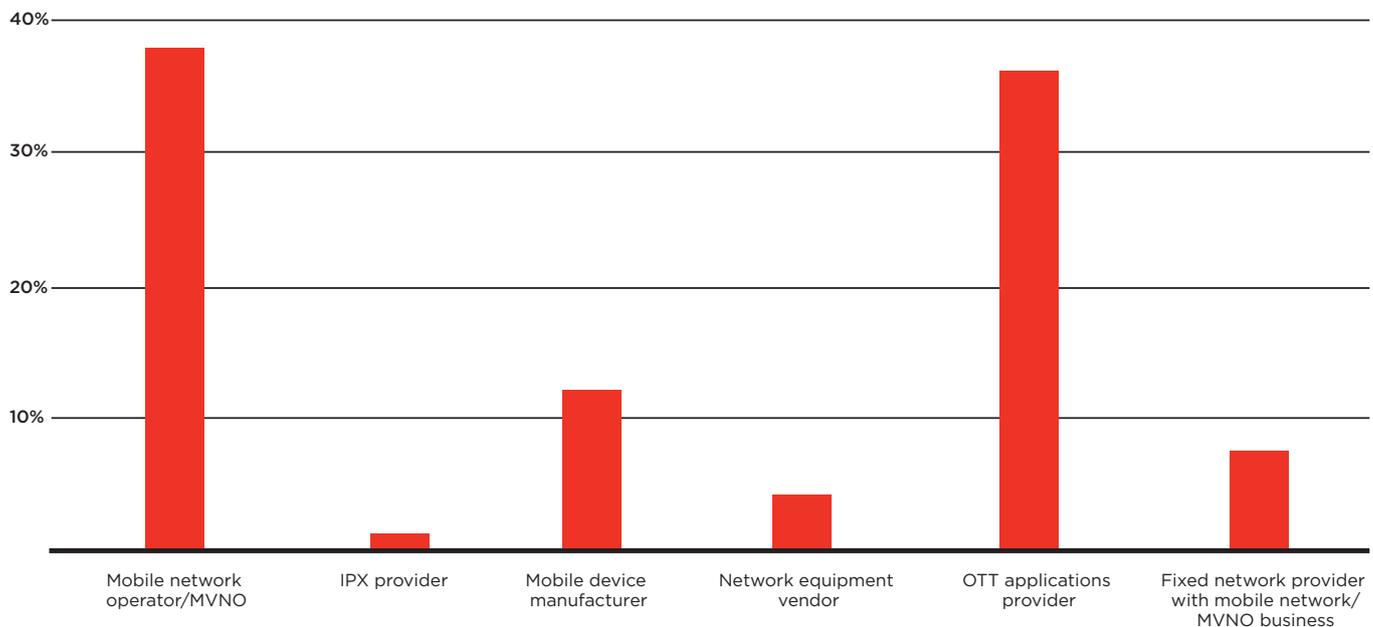


## Over-the-top proves popular for UC&C sessions

The type of company that is expected to drive the use of UC&C services on smartphones over the next five years is a mobile operator or mobile virtual network operator (MVNO), according to 38 percent of respondents. The result is not surprising, given that an improvement in network coverage is regarded as an important driver of increased frequency of usage of smartphones for these services. Furthermore, mobile operators already focus heavily on the provision of UC&C services to their growing base of small and large enterprise customers.

At the same time, 37 percent of respondents also think that OTT app developers will be well positioned to drive this sector, indicating that mobile operators certainly should be aware of this demand and must be willing to integrate with other applications in an intelligent way. What is surprising is the fact that respondents do not consider mobile device manufacturers to be well positioned to drive UC&C use on smartphones, with just under 12 percent of respondents opting for this type of company.

## Which type of company is best positioned to drive the use of UC&C on smartphones over the next five years?



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Almost 50 percent of respondents said they require over 50 percent of their conference calls to be made on a mobile device.”

## Conclusion

The future of UC&C services on mobile devices such as smartphones holds huge potential for the different players in the value chain, particularly for mobile operators, app developers as well as device manufacturers since they all enable and support the technologies required for a high-quality mobile UC&C experience.

It is evident that there is a need for further education about mobile UC&C, including information about the benefits that technologies such as HD audio and other communication apps can bring. Voice quality is cited as a major barrier to the use of smartphones for UC&C, yet users do not always appear to equate voice quality with the availability of technologies such as HD audio.

Addressing these issues, and tailoring future smartphone developments around UC&C and messaging apps, could be key to persuading people to use their smartphones more for UC&C services, continuing a clear trend away from desktop phones and towards mobile devices.

For mobile operators, educating users on the benefits of features such as HD audio, messaging capabilities and improvements in network coverage are a must to encourage people to increase how frequently they use their smartphones for conference calls.

The popularity of OTT applications also indicates the requirement to partner with UC&C providers in order to offer services that are attractive, easy to use, inexpensive and relevant to users.

Building on these reasons, the survey shows why operators are best placed to drive UC&C usage on smartphones over the next five years. What is clear is that the desktop phone is no longer the device of choice for communication and collaboration in the enterprise, as users prefer to use their own smartphones in an increasingly mobile world.



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