



IN-BUILDING WIRELESS: The overlooked enabler of productivity at work

A report by CommScope



Executive foreword

The UK is currently in the midst of a productivity crisis, with recent data from the Office of National Statistics (ONS) reporting that the country's output per worker was 15.4% below the average for the rest of the G7 in 2016¹; and it is a crisis that affects businesses across all industries.

This is a significant issue, and has certainly played a part in our flat-lining economy in recent years, with organisations across the country seemingly unable to unlock the potential of their workforces.

It is a complex challenge and - whilst there is no silver bullet or quick fix that will tackle it - this report seeks to shed light on one aspect that remains within the grasp of decision-makers: the topic of in-building wireless connectivity.

Our research – polling office workers across the UK – has revealed a significant link between the provision of cellular / mobile connectivity, and improved productivity in the workplace.

As workplaces are transforming - from flexible working practices to a growing culture of hot-desking and shared office-space - it is critical that a business's employees, customers and partners all have access to fast and reliable coverage on their mobile devices to stay connected.

For those working indoors – especially in large office spaces – there are a number of challenges preventing this, from the location of the base station antenna to the building type and structure. There is also an ongoing debate around whose responsibility it is to cater for the end-users, with mobile operators, building owners and facilities administrators all playing a role.

This report provides a snapshot of insights regarding workers' viewpoints around mobile connectivity, and provides recommendations on how businesses of all sizes can tackle this issue. While indoor mobile coverage won't unlock all aspects of an organisation's productivity challenge, it should form a vital first step as part of a wider digital transformation strategy.



Phil Sorsky, Vice President of Service Providers International, CommScope

¹ Office of National Statistics: [International comparisons of UK productivity \(ICP\), first estimates: 2016](#)

Chapter 1: The role of cellular mobile coverage in the workplace

We all read countless reports and industry research discussing the critical role of superfast broadband as a business enabler - and we absolutely agree that it's a necessity for any organisation committed to delivering a first-class service. From offering the ability to transfer documents and communications at speed to real-time data analysis, fibre-optic superfast broadband has changed the game for businesses across the globe.

Yet this is typically the primary, or in some cases the only measure of connectivity businesses fully scrutinise when considering a new workplace. Many businesses overlook access to fast and reliable cellular services in their building, only realising the implications of a disconnected building once it's too late.

Our research has found this issue is still apparent across many workplaces in the UK, with poor mobile connectivity affecting the productivity of around one in four (23%) office workers at least once a week.

From the workers' perspective, however, the role of reliable and speedy cellular coverage in enabling productivity was clear: three quarters (77%) of respondents considered it as 'important' for being able to complete tasks such as making phone calls and using data to stay up-to-date with current developments.

It isn't just employees that are affected by this issue. For businesses with a high volume of customers visiting their offices, the provision of mobile connectivity should be a baseline requirement. We've seen many instances where poor indoor connectivity has meant that a visiting customer has had to step outside to call their contact to say they've arrived. First impressions can make a long-lasting impact and this is just one example of how a lack of indoor mobile connectivity can impact the customer experience.



Chapter 2: Today's UK state of play

Despite workers acknowledging the clear role of in-building wireless connectivity in enabling them to perform their roles efficiently, nearly half of respondents (44%) admitted a lack of mobile coverage indoors meant they have had to step out of the building to make a phone call or access 4G data services on their mobile device.

There are also significant geographical variations across the UK in terms of the quality of indoor wireless coverage. Workers in London (42%), Yorkshire (42%) and the West Midlands (42%) all claim to enjoy the most reliable 4G, voice and data services, while those in the North-East (7%) appear to suffer the most unreliable service, while Wales (7%) claims the most incidences of no signal at all.

While it isn't entirely clear why there are such discrepancies across the country, there are a number of factors that influence how the quality of mobile coverage within individual buildings can vary. These include the location of the nearby macro base station sites, the strength of other 'interference', and - most significantly - the "Faraday's Cage" effect of a building, whereby the physical structure of the building, such as the metal framework and more recently energy saving glass, creates a blocking effect preventing the

external signal from penetrating its frame. These can all result in a huge reduction in signal strength indoors – leading to reduced productivity and business output.

Ofcom's most recent Connected Nations report also found that only 58% of premises across the UK have access to 4G connectivity from all four main telecoms providers². While this is up 18% year-on-year, it is clear that there is still work to do – especially in relation to our workplaces.

² Ofcom: [Connected Nations](#) (2017)



Chapter 3: The changing nature of the workforce

Workplaces are changing. Employees are demanding more from their employers. And the typical '9-5' is simply no longer typical. As new generations join the workforce with different hopes and expectations regarding how technology will be used at work, businesses must look to the future.

Living in a virtual world creates frustrations for Generation Z, 13-22 year olds, when connectivity speeds can't keep up. They behave the same way wherever their devices are, regardless of location since, for them, the "place" is defined by where they and their phones are, not a specific geography or location.

Employees have been bringing their own smartphones to work for some time of course – and, today, tablets, phablets and other smart devices are becoming even more pervasive. Getting them access to reliable and speedy connectivity is key.

Alongside this influx of devices, employees are using sites such as Facebook, Twitter and YouTube to access news and content for work, as well as pleasure. YouTube, WhatsApp, Instagram and Facebook were cited as apps used most often, according to [The Generation Z study of Tech Intimates](#).

Demand for 'over the top' (OTT) services across mobile networks was also clear from our research, with around one in three (29%) workers admitting to using 4G connections to watch videos, download smartphone apps or use social media every day. A quarter (27%) added they do this at least once a week.

As the lines between work and our personal lives continue to blur, employees want to work for an organisation that considers itself as forward-thinking and prepared for such change. Two-thirds (64%) of those responding to our poll acknowledged the role played by strong mobile connectivity in attracting skilled prospective employees, with only one in five (20%) disagreeing.



Industry recommendations

1. Be proactive to future-proof your building

When businesses of all sizes begin to notice the impact of slow, unreliable or a complete lack of mobile coverage in their buildings, their first port of call is always their operator. While this is a sensible first step, operators are typically more amenable to investing in nearby base stations, which aim to provide coverage to those in and around them. However, this 'outside-in' approach doesn't always solve the problem – especially as building structures can change with the retro fitting of 'E-Glass' and of course newly built structures can further block service.

Businesses and building-owners must therefore take a proactive stance, investigating the technology solutions that are out there that will provide first-class cellular connectivity for their employees, customers and partners at the point of need. This might mean testing wireless connectivity before entering a new lease, for example. Without this necessary leadership and direction, connectivity will remain an unresolved issue.

2. Incorporate access to wireless connectivity into their digital transformation strategies

We are in the age of digital transformation, as businesses vie to become 'the next Netflix or Deliveroo', enabled by best-of-breed cloud technologies. CIOs across the globe are considering their entire operating models and building plans for the future. Indoor mobile connectivity must form part of those plans.



At the heart of this digital transformation are typically the handset-based applications that drive the consumption of new services or the gathering of high value information. High quality, in-building cellular services enable employees to 'live the customer experience' prior to the rollout of new services and applications.

An improved customer experience and a generally happier and more engaged workforce, is a clear enabler of productivity. Ensuring the delivering of first-class in-building wireless coverage must be a priority for business leaders.

3. Reimagine the cost of deployment as an investment

In today's uncertain financial and economic climate, all costs are rightly being scrutinised at the highest echelons of every organisation. Deploying advanced technology to deliver access to something we now consider as a utility would likely be a topic for discussion.

Businesses of all sizes will be evaluating their overall productivity and output – and this research has identified the clear relationship between access to mobile coverage and improved productivity at work. We are a global, 24/7 society – with new and disruptive players entering the game across all sectors. This competition is only set to intensify, so now is the time to invest in connectivity as an enabler for tomorrow's business development.

Methodology:

The poll was conducted by OnePoll and commissioned by global telecommunications provider [CommScope](#). OnePoll independently surveyed 2,000 UK office workers between 5th and 11th December 2017.

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