INDOOR LTE COVERAGE

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Key takeaways:

- 25 per cent of respondents said widespread availability of wifi means there is no urgent need for indoor LTE coverage.
- 75 per cent of operator respondents believe they should own indoor LTE infrastructure.
- 49 per cent of respondents believe operators are focused primarily on meeting geographical rather than indoor coverage requirements.

MCCI

About MCCI:

MCCI is a leading provider of Full Turnkey Projects Implementations in Infrastructure and Telecom Industries.

It covers all MENA region with heavy presence and operations in GCC region that include Saudi Arabia, Kuwait, United Arab Emirates, Qatar, Bahrain & Oman. Algeria office is the Hub for serving North Africa countries.

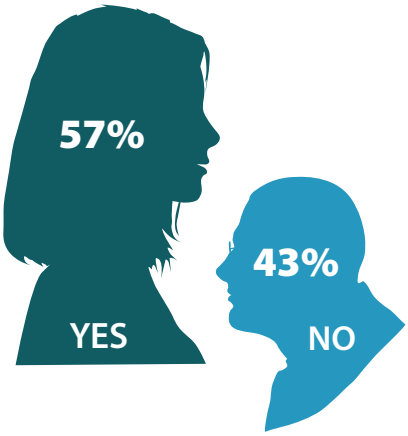
LTE Design and implementation is one of the Strong Capabilities of MCCI.

MCCI deployed many Successful In Building Solutions (IBS) Design & Implementation projects for multi operators & multi mode in many Advance Markets like Saudi Arabia.

Inside Job

To contrast with the section of the survey that looked at LTE across borders we also asked our respondents some questions about LTE on a much smaller scale; specifically its deployment and performance for indoor coverage. Some of the results were surprising.

Do you believe there is a market for specialist indoor LTE operators?



In-building coverage has long been an issue with cellular systems and many solutions have been devised to try and help improve the indoor penetration and performance of mobile networks. We hear much about the densification of the network that LTE is intended to bring thanks to an increased volume of small cells and in-building service is an important part of that story.

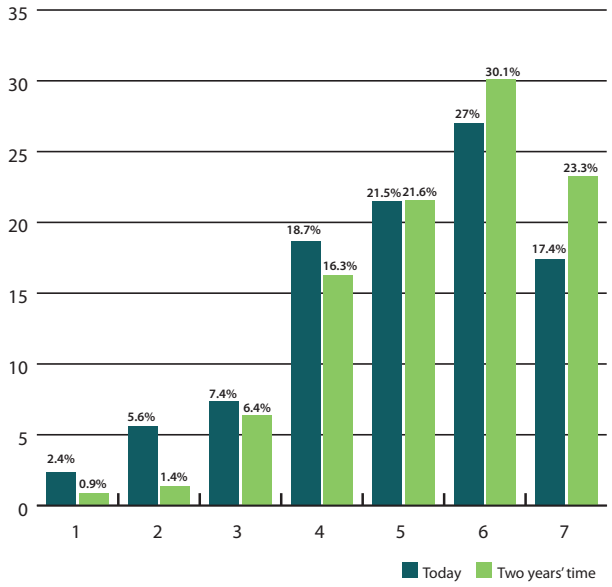
In these early phases of LTE deployment and operation operators are focused on meeting a number of targets, depending on business plans and licence conditions. Nonetheless it was interesting to note that a large number of respondents felt that indoor LTE coverage is an important competitive differentiator for operators today. On a scale of one to seven where seven represented "extremely important", 44.4 per cent of respondents and 48 per cent of operator respondents scored indoor LTE coverage six or seven for importance as a differentiator.

Looking two years out they expect its importance to grow. 53.4 per cent of respondents and 56 per cent of operator respondents scored it six or seven for importance in two years' time.

Indeed 30 per cent of respondents—and 32.3 per cent of operator respondents—expressed strongly the belief that driving high quality indoor LTE coverage is more important than ensuring rural coverage based on geographical targets.

Rate the importance of indoor LTE coverage as a competitive differentiator today and in two years' time

(1 – 7 where 7 is extremely important)



Despite this, respondents reported that, in their market, operator activities are currently geared towards wide area coverage. Asked to characterise operator approaches to indoor coverage, almost half—48.7 per cent—said that in their market operators are today focused primarily on geographical rather than indoor coverage. Meanwhile 22.7 per cent said that operators are focused on providing good indoor coverage in public buildings, 16.5 per cent that they are focused on providing good indoor LTE coverage for all users and 12 per cent that they are concerned with providing superior coverage to enterprise customers.

A larger share of operator respondents than overall respondents (21 per cent) claimed that there was a focus on providing good indoor coverage for all.

In early rollout phases operators can easily become stretched, however, and it was interesting

to note that more than half of operator respondents—55.9 per cent—said they believe that a market exists to support specialist indoor LTE service providers. This number was even higher, at 57 per cent, for the overall base of respondents.

That said, responsibility should remain with some form of network operator, according to 65 per cent of respondents (see following page). Meanwhile 17.5 per cent felt that it was appropriate for building owners to own indoor LTE infrastructure, 6.5 per cent the building occupant and 11 per cent the provider of fibre to the building. While we might expect a majority to support the traditional supply model it is worth noting that, taken together, 35 per cent of respondents feel that the mobile operator might not be the natural owner of indoor LTE infrastructure.

Operator respondents were unsurprisingly more defensive of tradition, with 75.1 per cent saying network operators should own indoor infrastructure. Again, though, the remainder is significant. One quarter of operator respondents are thinking along different lines.

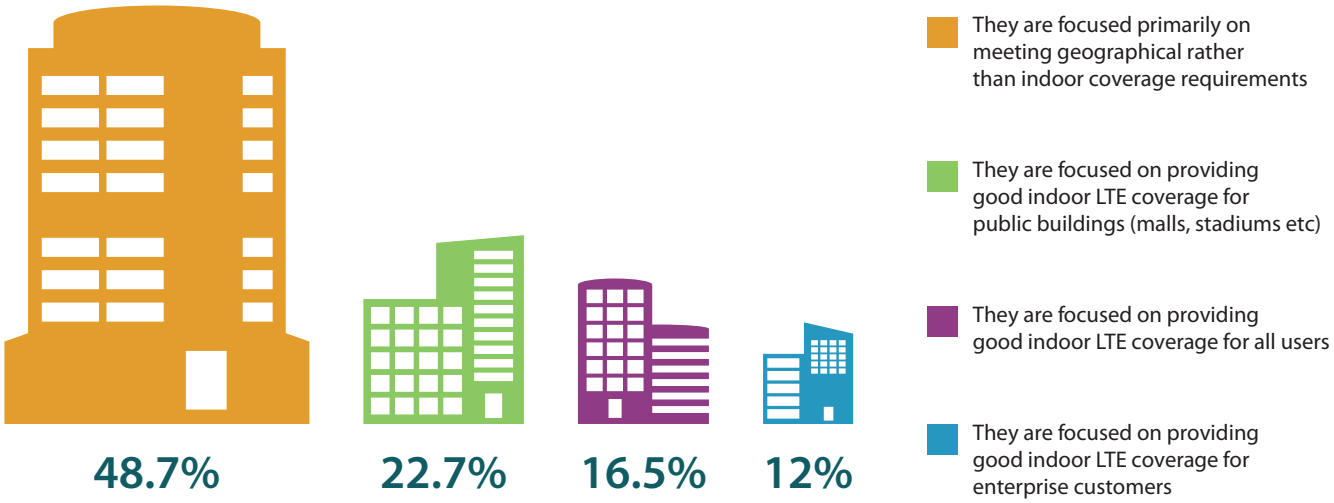
This was further reinforced when we asked respondents to rate a number of factors acting as inhibitors on indoor LTE coverage deployment. Here it is worth looking at the operator responses in isolation (they are close to the overall responses in any case). On our one to seven scale, where seven represented "extremely challenging", 24.3 per cent of operator respondents gave a score of six or seven to the statement: "It is unclear who is the most appropriate owner of indoor infrastructure".

Perhaps even more surprisingly, 20.4 per cent of operator respondents felt similarly strongly that operators don't understand enough about indoor network design. Meanwhile 23.2 per cent gave the same weighting to the fact that ready availability of wifi means there is no urgent need for Indoor LTE coverage.

Respondents were also asked to what extent they agreed with a number of statements related to indoor LTE, indicating their strength of feeling on a one to seven scale where seven represented strongly agree. In one of the survey's most surprising results, more than 30 per cent of operator respondents gave a six or seven rating to the assertion that regulators need to do more to force operators to improve indoor network performance.

If regulators don't force change then perhaps technology will. Almost 40 per cent of operator respondents (and 36.4 per

Which of the following best describes operators' approach to indoor LTE coverage in your market?

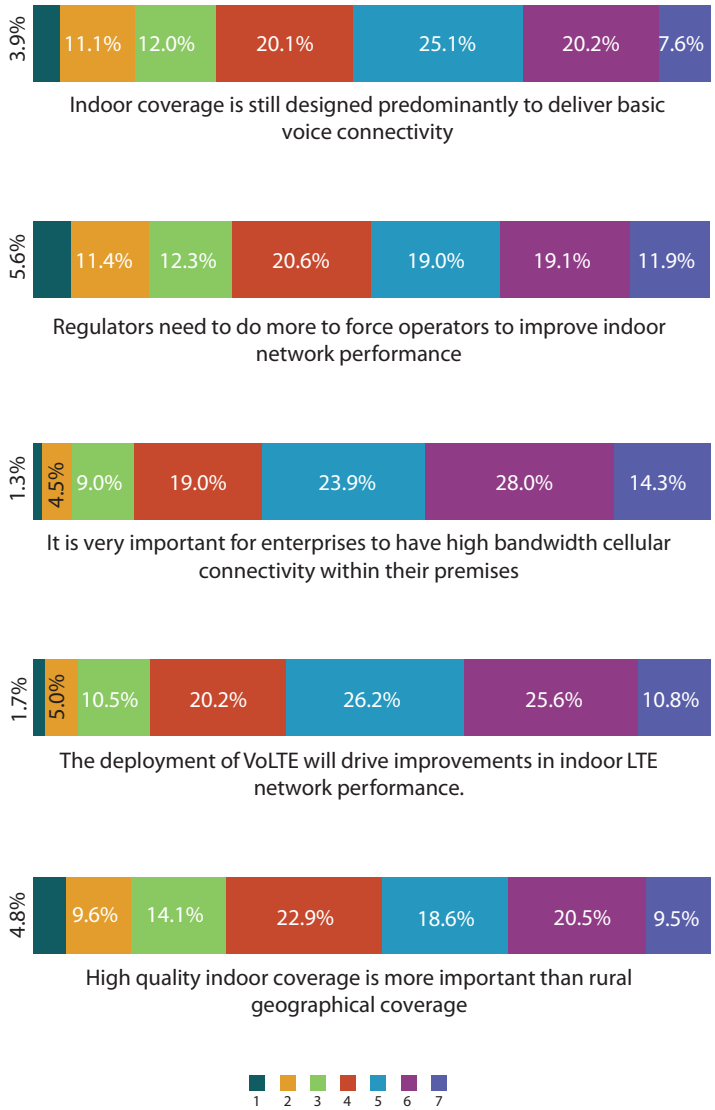


cent of respondents overall) gave a six or seven rating to the expectation that the deployment of VoLTE will drive improvement in indoor LTE coverage. Unsurprisingly there was also a consensus that enterprises require high quality indoor LTE coverage.

This section of the survey showed that there is considerable open-mindedness within the industry about how improvements in indoor coverage should be managed. Clearly the performance of LTE networks within buildings is going to become increasingly important to users and by extension to operators looking to provide those users with a service. But not all operators seem to believe that traditional models of provision are best suited to solving the indoor problem. And it is rare indeed to hear of operators openly calling for greater regulatory pressure in any area of their business. This is a space to watch with interest. ■

To what extent do you agree with the following statements regarding indoor coverage in your market

(1 – 7, where 1 is strongly disagree and 7 is strongly agree, is strongly agree)



The following proportion of respondents agreed strongly (rated their agreement six or seven out of seven) with these statements:

25.3% WIDESPREAD AVAILABILITY OF WIFI MEANS THERE IS NO URGENT NEED FOR INDOOR LTE

20.1% THERE IS AN ABSENCE OF PROVEN SPECIALIST INFRASTRUCTURE SOLUTIONS

21.4% OPERATORS DON'T UNDERSTAND ENOUGH ABOUT INDOOR NETWORK DESIGN

26.7% IT IS UNCLEAR WHO IS THE MOST APPROPRIATE OWNER OF INDOOR INFRASTRUCTURE

Who should own indoor LTE infrastructure?