

Operators in Focus

# Operator strategies for verticals in the 5G era

July 2020



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## GSMA<sup>®</sup> Intelligence

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GSMA Intelligence is relied on by leading operators, vendors, regulators, financial institutions and third-party industry players, to support strategic decision-making and long-term investment planning. The data is used as an industry reference point and is frequently cited by the media and by the industry itself.

Our team of analysts and experts produce regular thought-leading research reports across a range of industry topics.

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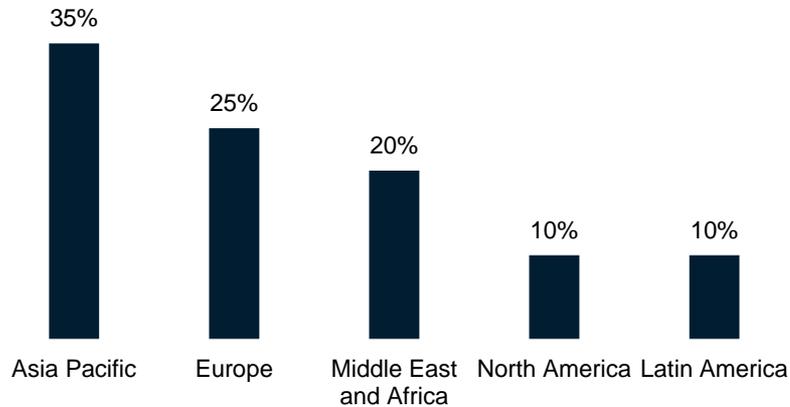
- 1 Leveraging connectivity as a base to address verticals with potential.** More than 80% of operators offer, or plan to offer, private networks to enterprises in 2020. Most private network deployments are rooted in the LTE era but firmly positioned as a USP for selling 5G and IoT services to existing business customers. Manufacturing, financial services and retail are generally viewed as the most fertile verticals for private networks by operators. Appetite in service sectors requiring more complex deployments, such as agriculture and mining, is more variable but should not be disregarded considering the potential for long-term service contracts.
- 2 5G will likely lead to a step change in how operators approach verticals.** A third of operators are currently positioning higher speeds as the key 5G value proposition, as in consumer marketing. While there is some variation reflecting the needs of particular sectors (e.g. network slicing for manufacturing), operators have yet to cut through to enterprise customers with a genuinely 'new' proposition. Opinions change when looking two years ahead, though: slicing capabilities, low latencies and private networks are likely to form the core propositions in winning enterprise contracts then.
- 3 Customer demand drives urgency for structural change.** Operators with a strategy to upsell to existing customers are clear that to offer new connectivity services such as 5G or SD-WAN they must provide the same digital B2B experience that cloud and IT vendors offer. Traditionally, operators' B2B digitisation has lagged their progress in B2C but the chorus of enterprise expectations should provide urgency for structural change. This extends to the organisational shift required for operators to be successful as consultative partners rather than pure-play connectivity sellers.
- 4 The new era means new skills.** The top three factors affecting operators' ability to win enterprise business are automation capabilities, labour skillsets and local market presence. Pricing and being first to market are much further down the list, suggesting time is being taken to fundamentally reshape how services are sold rather than rushing products out in search of market share. We view this as eminently sensible considering that the margin-accretive prospects of long-term contracts with large companies ultimately rely on quality and demonstrable impact, which can be aided through trials in the near term.

## Survey details

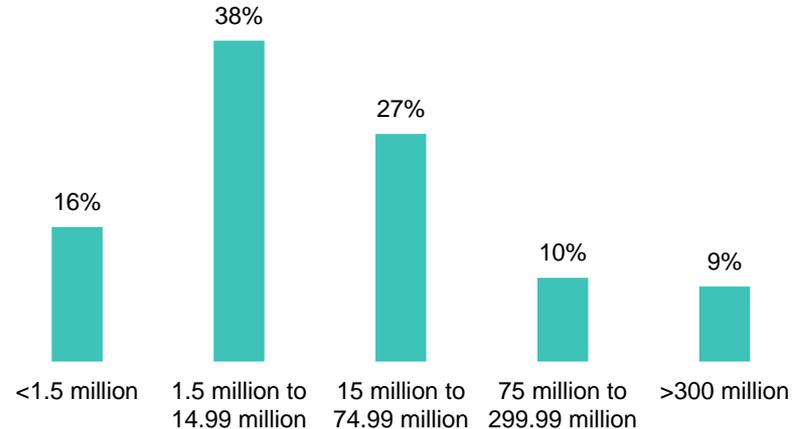
### Distribution and timing

- In Q2 2020, GSMA Intelligence surveyed 100 decision-makers from operators around the world to understand their views on the enterprise opportunity.
- The decision-makers have a strategic role to grow enterprise revenues, selling traditional communications services (fixed and mobile) and other value-added services (cloud infrastructure and services, IoT, security, big data and analytics, application management and development services, and professional services).
- All responses were confidential and are only reported in aggregate.

#### Regional distribution of respondents (N=100)



#### Organisation size by number of mobile connections (N=100)



### Enterprise portfolio

- Which of the following communications services do you currently sell to your enterprise customers?
- When do you expect to sell the following communications services to your enterprise customers?
- Which of the following non-communications services do you currently sell to your enterprise customers?
- Within the next two years, which of the following non-communications services do you intend to sell to your enterprise customers?
- Thinking of your overall strategy for your enterprise customers, which of the following is the most important long-term (three to five year) objective?

### Opportunities in verticals

- Please rank the top three verticals that you expect will be your greatest sources of revenue between 2020 and 2025.
- When do you think each of the following verticals will generate revenues at scale?
- For each 5G benefit, please indicate the industry that you believe stands to benefit the most.
- Which verticals are the top candidates for private network investment?

### Success factors

- Rank the top three factors that affect your ability to sell connectivity services to enterprises.
- Rank the top three factors that affect your ability to sell non-connectivity services to enterprises.
- How important – if at all – is each of the following operational priorities in helping you achieve your long-term enterprise revenue goals?
- How important is each of the following technology capabilities in helping you achieve success with enterprises?

### Go-to-market patterns

- What is the primary 5G value proposition you are marketing to enterprises now and in 2022?
- When approaching enterprise customers, which of the following products are most often included as the 'lead' value-add elements?
- Who do you view as your most formidable competitor in each of the following product areas?
- What type of vendor do you prefer to partner with when selling joint solutions in each of the following product areas?
- Please rank the top three non-traditional partner types you believe could be crucial to the success of your enterprise strategy.

### Impact of Covid-19

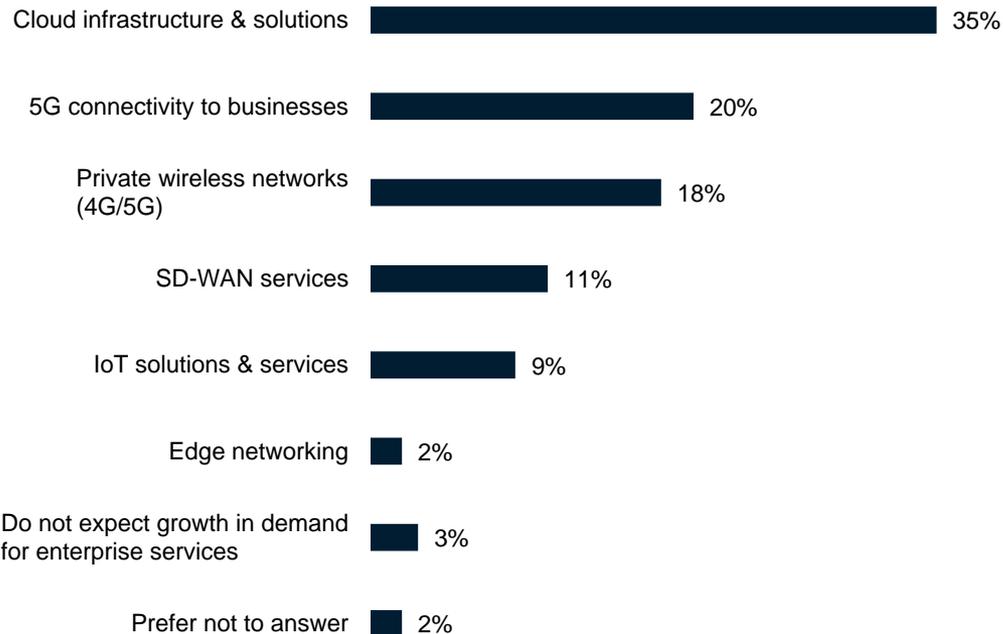
- For which type of service, if any, do you expect to see the strongest growth in demand from your enterprise customers due to the Covid-19 pandemic?
- Compared to expectations before the pandemic, how do you predict Covid-19 will impact overall 2020 revenues for your enterprise lines of business?

## Covid-19: services with the strongest demand

### Cloud and private networks are the priority; the rest will follow

**For which type of service, if any, do you expect to see the strongest growth in demand from your enterprise customers due to the Covid-19 pandemic?\***

Percentage of respondents (N=92)



- It is no surprise that operators anticipate cloud to experience the strongest growth from enterprise customers during the Covid-19 pandemic. Working from home is now a global trend; secure and resilient connectivity for cloud is a top priority for most businesses.
- 5G enterprise connectivity and private networks can be grouped alongside cloud as the means for companies to sustain their remote and virtual business through the Covid-19 crisis.
- More sophisticated connectivity such as SD-WAN and edge, as well as IoT deployments are in high demand from businesses investing in digital transformation. However, they are not a priority to get businesses through the crisis; rather, they are areas in which businesses will invest as soon as possible to build a stronger position for the future, post-pandemic.

\*Survey work conducted mid-March to mid-April 2020

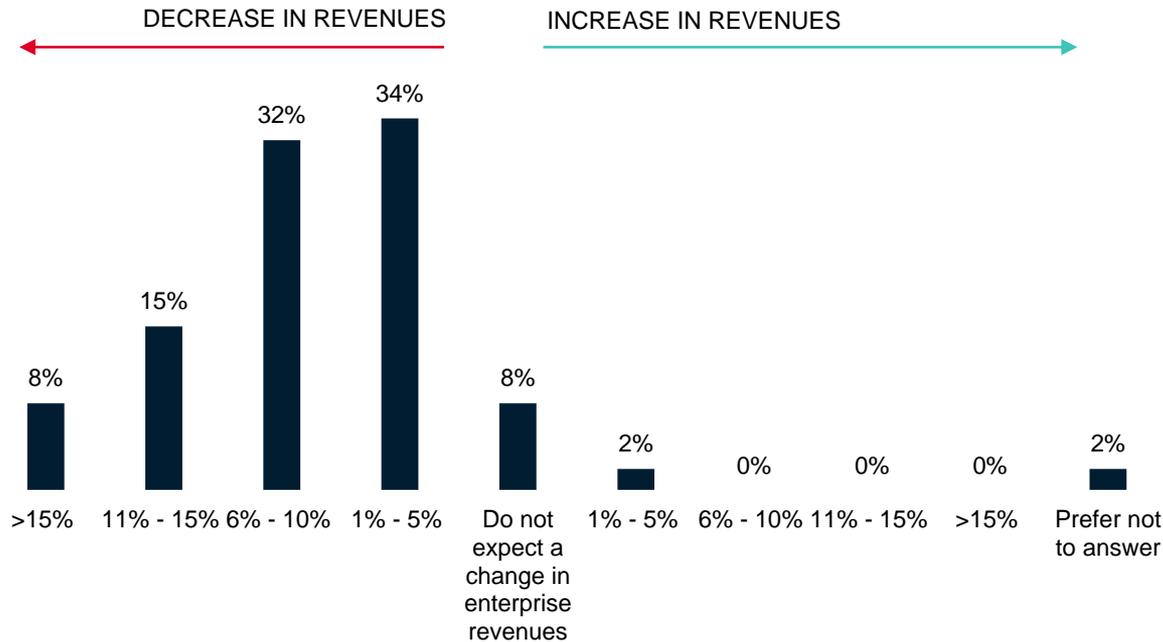
Source: GSMA Intelligence

# Covid-19: impact on enterprise revenue

## Operators expect a substantial loss

**Compared to expectations before the pandemic, how do you predict Covid-19 will impact overall 2020 revenues for your enterprise lines of business?\***

Percentage of respondents (N=92)



\*Survey work conducted mid-March to mid-April 2020

Source: GSMA Intelligence

- As of the beginning of the pandemic, the majority of operators were expecting a revenue loss of between 1% and 10%, while around one in four expected a decline of more than 10%. Either scenario would entail a substantial loss in enterprise revenue, but their forecasts may prove accurate given the big shock that companies may have to withstand and the resulting cuts they could make from their ICT budgets.
- Enterprises account for around 30% of operators' revenue mix on average. Nearly half of this stems from SMEs, which may be affected more severely by the economic hit.
- Given such scenarios, operators need to take a medium to long-term approach to ensure contract continuation, allow for payment deferrals and enable greater customisation of services.

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## In numbers: enterprise portfolio

**36%**

The most important objective in operators' enterprise strategy is to grow revenue with existing customers (36% of respondents).

**87%**

Some 87% of operators offer cloud services to enterprises and a further 8% plan to do so over the next two years.

**>80%**

More than 80% of operators offer private wireless networks or plan to offer them to enterprises by the end of 2020.

**48%**

Deploying telecoms functions on the public cloud was once considered unlikely. Today, almost half of operators claim to be doing so commercially.

**>70%**

Over 70% of operators claim they will be selling 5G to SMEs and corporates by the end of 2020.

**94%**

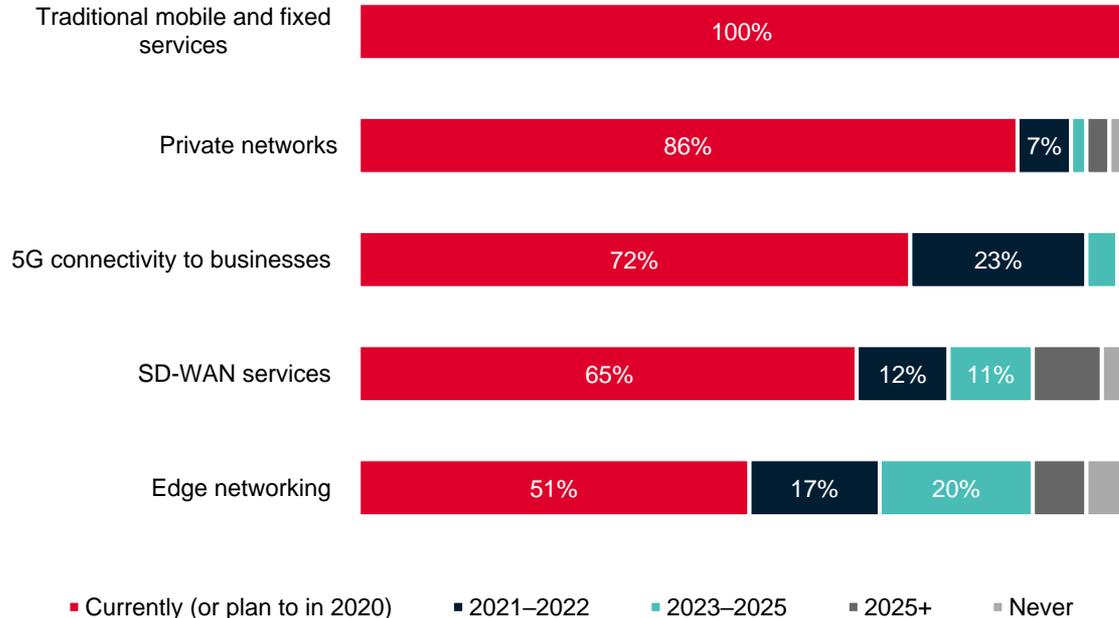
Nearly all operators will offer IoT solutions by 2022. Some 65% of surveyed enterprises have deployed an IoT solution as part of a broader digital transformation agenda.

# Enterprise portfolio for communications

## Playing to your strengths

Which of the following communications services do you currently sell to your enterprise customers and, if you don't, when do you expect to do so?

Percentage of respondents



- Connectivity remains the base layer.** Despite limited 5G network footprints, more than 70% of operators claim they will be selling 5G to SMEs and corporates by the end of 2020. This likely reflects the sale of 5G devices and in limited cases FWA, using established B2B distribution channels.
- Private networks grow.** More than 80% of operators have private networks available. The high figure could suggest a loose definition of the term though, ranging from the installation of private networks to adaptation of legacy LTE configurations.
- Room for growth beyond core connectivity.** A smaller proportion of operators are currently involved in edge and SD-WAN, but the majority expect to offer these by 2025. It remains to be seen how go-to market models will shape up, with a mix of direct sales and partnerships with cloud majors likely.

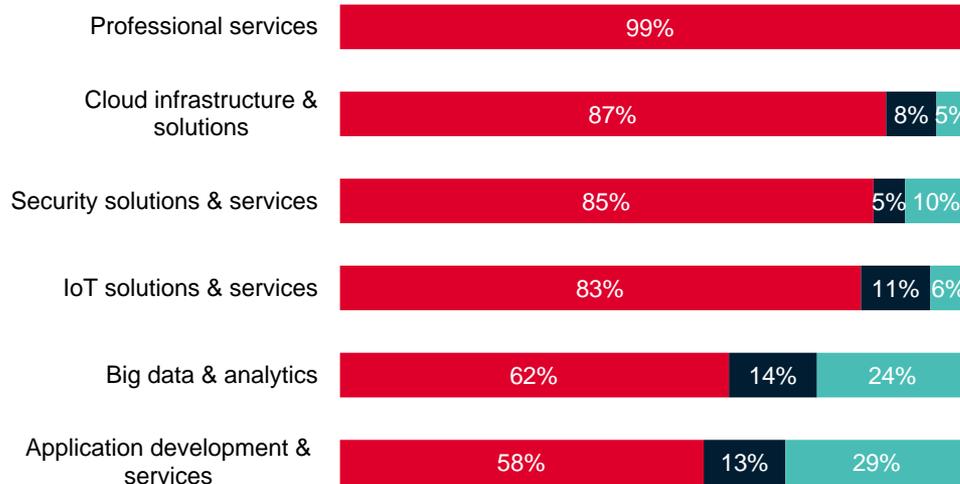
# Enterprise portfolio for non-communications services

## Commitment in cloud and IoT; ambitions in data analytics

Which of the following non-communications services do you currently or plan to sell to your enterprise customers within the next two years?

Percentage of respondents

■ Currently sell ■ Intend to sell in the next 2 years ■ Did not respond



Source: GSMA Intelligence

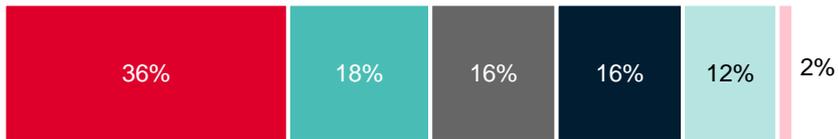
- **Nearly all operators in cloud and security.** This follows the GSMA Intelligence Network Transformation Survey, which showed almost half of operators offering public cloud solutions to enterprises.
- **Firm commitment to IoT.** Around 65% of enterprises have deployed an IoT solution as part of their digital transformation agendas, so operators are rightfully claiming a share here. However, only 7% of enterprises consider operators as their “go-to” IoT vendor; more work is needed to become the partner of choice.
- **Big data analytics and application services – similar stories.** Three in four operators will offer such services over the next two years. For the rest, these might not be clearly defined commercial opportunities, or they might not even see themselves in these areas in the future.

## Enterprise strategies for the next three to five years

### Existing accounts form the target in the medium term

Thinking of your overall strategy for your enterprise customers, which of the following is the most important long-term (three- to five-year) objective?

Percentage of respondents (N=100)



- Grow revenue with existing customers
- Grow new channels through partnerships
- Develop industry vertical focus by creating new repeatable use cases
- Create new business models with enterprises
- Grow customer base by selling to new accounts
- Other

Source: GSMA Intelligence

- **Upsell tops all.** The most important objective for operators is to grow revenue with existing customers. This implies a strong focus among operators on adding cloud, security and IoT (higher growth services) to core connectivity offerings.
- **North America is an outlier.** For North American operators, the most important objective is to grow the new accounts base. This is in contrast to operators' priorities elsewhere.
- **Appetite to explore new areas.** Similar proportions of operators appear willing to explore new partnerships, use cases and business models, likely realising that maximising future gains in the enterprise market will require partnerships and innovation.

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## In numbers: opportunities in verticals

**>15%**

More than 15% of operators ranked manufacturing (electronics) or financial services as the strongest verticals for revenue beyond connectivity during 2020–2025.

**>50%**

More than half of operators expect to lead or co-invest with their enterprise customers in private network deployments in financial services and healthcare.

**<10%**

Less than 10% of operators see opportunities for revenue beyond connectivity in buildings, transport, mining or utilities.

**24%**

Massive IoT is the 5G feature that 24% of operators believe is key to addressing the retail enterprise opportunity.

**40%**

Two in five operators plan to invest in their infrastructure to support private networks for verticals.

**21%**

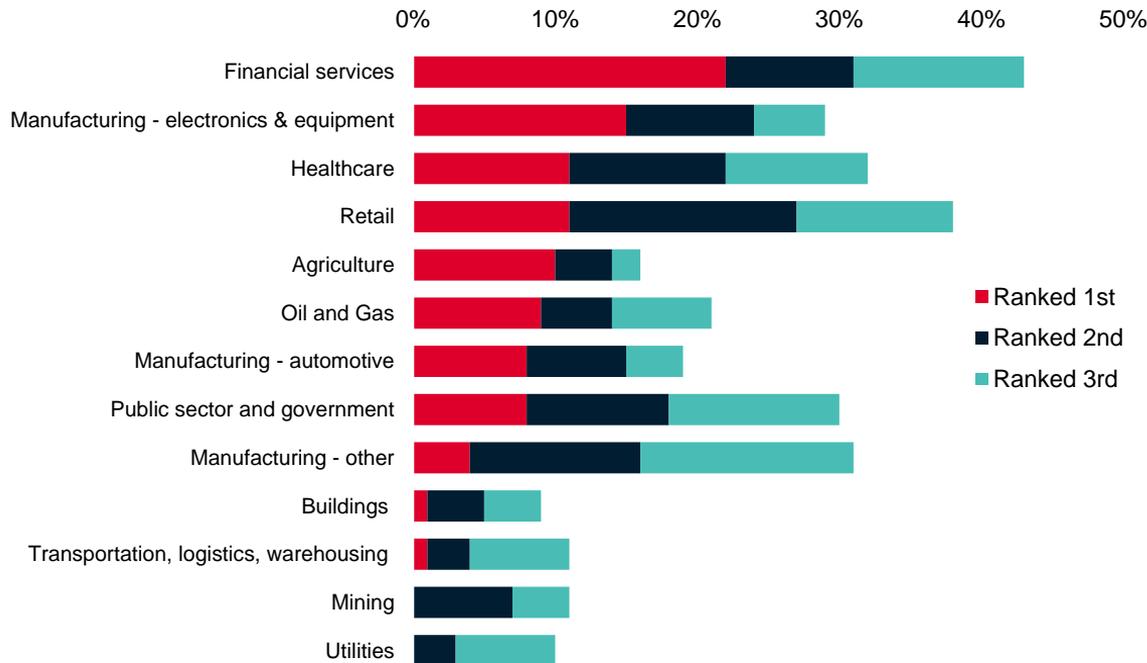
Network slicing is the 5G feature that 21% of operators believe is key to addressing the automotive manufacturing enterprise opportunity.

# Revenue opportunity in verticals for services beyond connectivity

## Operators betting big in financial services, manufacturing and healthcare

Which industry verticals do you expect to be your greatest sources of revenue beyond connectivity between 2020 and 2025?

Percentage of respondents (N=100)



- Manufacturing lends itself to on-site networks.** The manufacturing-related verticals would top the list (79%) if combined. Smart manufacturing is also the fastest growing segment for IoT.
- Other verticals also appeal.** The industry verticals that operators anticipate to be the greatest sources of revenue are financial services and retail, closely followed by healthcare.
- Regional variations.** While manufacturing interest is widespread, more complex deployments have regional bents – agriculture and mining in Latin America, and oil & gas in the Middle East and Africa, for example.

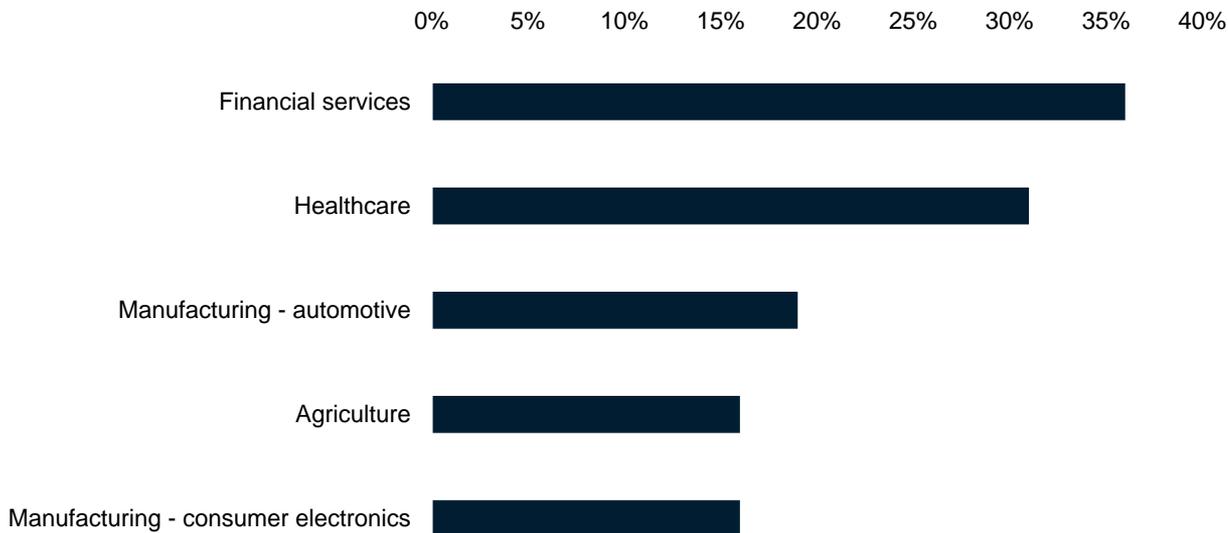
# The private network opportunity in verticals

## Investment appetite in line with revenue expectations

### Which industry verticals are the top candidates for private wireless (4G/5G) network investment?

Option: co-investment between operators and enterprise

Percentage of respondents



- **Two in five** operators plan to invest in their infrastructure to support private networks for verticals
- **Investing where the revenue opportunity lies.** In terms of bearing the project investment cost, operators are more willing to self-invest or co-invest in verticals where they see the best long-term income opportunity. Financial services, healthcare and manufacturing sectors are front of mind.

Source: GSMA Intelligence

# 5G features for individual verticals

## Benefits not only in higher speeds

- **Different features of 5G appeal to different verticals.** For example, operators see massive IoT as beneficial for retail but not particularly for financial services. This implies a deeper level of understanding of verticals' needs beyond basic, secure connectivity.
- **A step change in how operators approach enterprise verticals.** Today a third of operators are positioning higher data speeds as the key 5G value proposition, despite realising different verticals need different 5G features. This is likely to be bridged by developing tailored 5G enterprise offerings.

Please indicate the industry vertical that you believe stands to benefit the most from...



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**>50%**

Experience counts as the key factor in operators' ability to sell connectivity to enterprise customers. More than half of respondents list success in digital tools, local presence and a broad portfolio as top three factors.

**>50%**

Operators recognise their limitations in selling services beyond connectivity if they do not develop skills fast enough in IT and/or industry expertise. More than half of operators want to see further digitisation of their processes to succeed in selling non-connectivity services.

**75%**

Three quarters of operators expect an urgent change in sales tactics from transactional to consultative in order to succeed in upselling to existing vertical customers.

**33%**

A third of operators picked pricing as an important factor in their ability to sell connectivity to enterprise customers. That two thirds of small operators picked pricing as the most important factor reflects the pressure to compete on price and undermines the story of a differentiated challenger.

**11%**

Only around 10% of operators selected time to market as an important success factor in selling services beyond connectivity. If there is less urgency in being first to market, there is room for operators to make the move from transactional sales to a more consultative solutions model for non-connectivity services.

**70%**

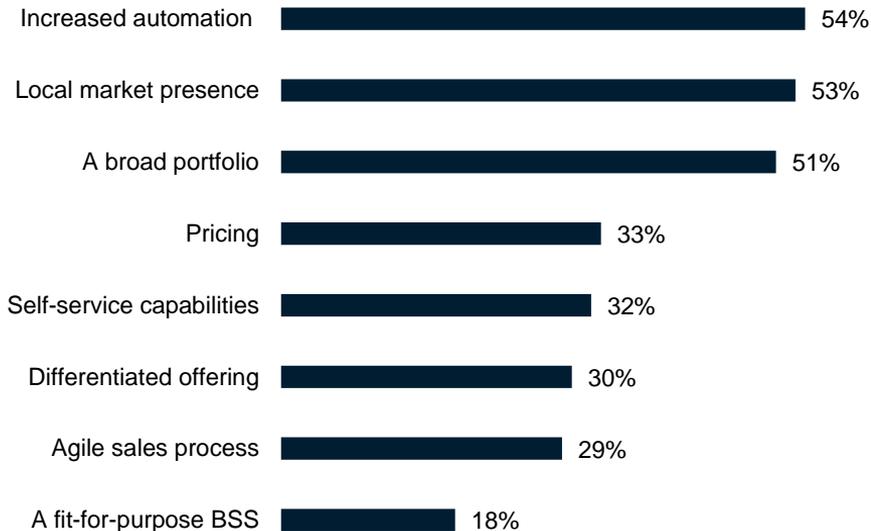
70% of respondents rate security as an important conversation point among enterprise customers.

## Ability to sell connectivity

### Delivering on customer experience trumps all

From the list below, rank the top three factors that affect your ability to sell connectivity services to enterprises

Percentage of respondents (N=100)



Source: GSMA Intelligence

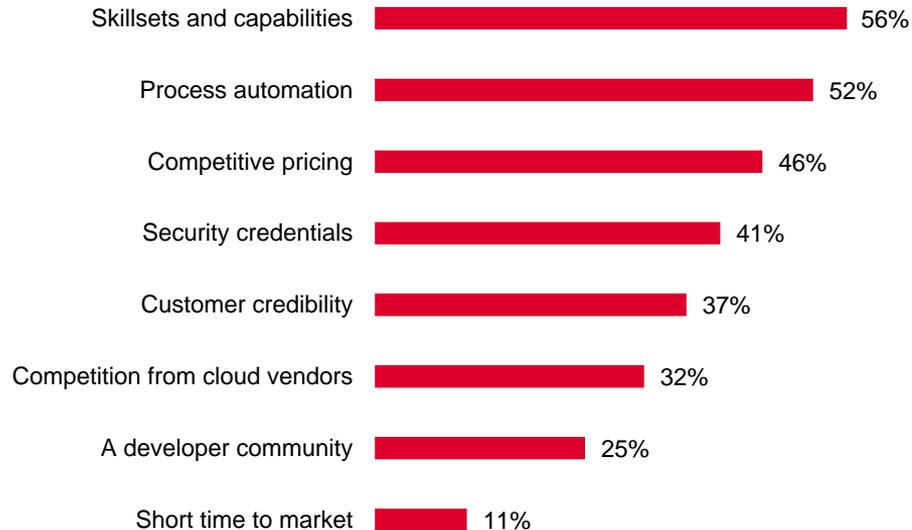
- Customer experience over price.** The top three factors affecting operators' ability to sell connectivity services are linked to their ability to deliver on customer experience. Given enterprises' buying preferences, operators are right to focus on increasing digital tools to deliver the expected experience. The ability to deliver from a local support site is equally important.
- Pricing more important for smaller players.** While not seen as the most important aspect of a deal for the sector as a whole, two thirds of small operators (with fewer than 1.5 million mobile subscribers) regard competitive pricing as the No.1 factor in winning enterprise business.
- Improved BSS is secondary.** Such a low rating for BSS exposes the risk that operators will not be able to adhere to the stringent connectivity metrics of 5G, private networks and SD-WAN services.

## Ability to sell non-connectivity services

### Structural problems acknowledged

From the list below, rank the top three factors that affect your ability to sell non-connectivity services to enterprises

Percentage of respondents (N=100)

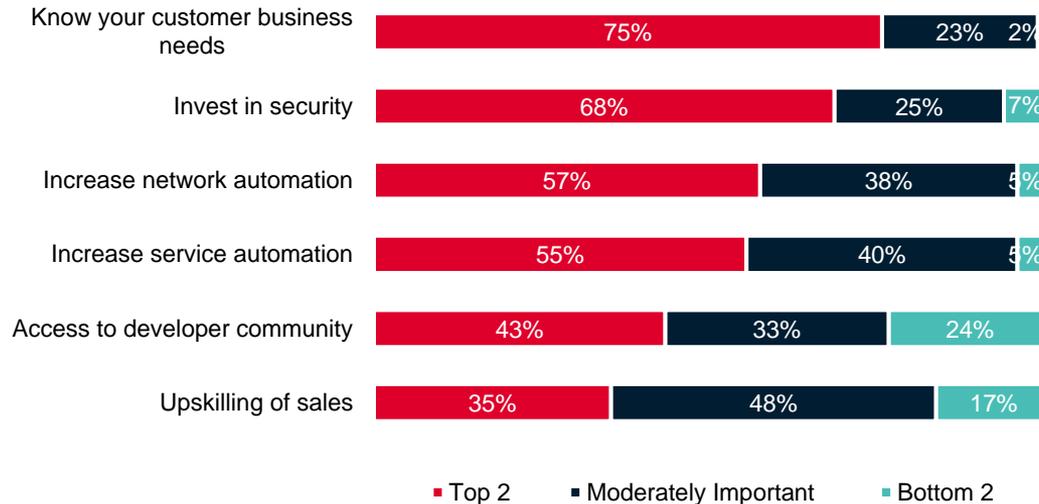


- **Operators on a transformational journey.** Operators recognise the urgency to refresh their organisation with relevant IT and/or industry expertise in order to upsell non-connectivity services to existing vertical customers.
- **Slow and steady.** Operators of all sizes do not consider short time to market as an important success factor. This sentiment should be reflected in the shift in sales from transactional to a more consultative solutions model for non-connectivity services. However, the window for winning enterprise contracts for cloud and network business will start to close as IT competitors begin to accumulate cloud and networking capabilities.
- **Developer community overlooked.** Large cloud vendors such as Azure and AWS have well established developer communities and are already aggressively pursuing cloud and edge networking capabilities. Operators risk overlooking this important route to market – especially those aiming to upsell via IT-led digital transformation.

## Operational priorities Selling style adapts to new goals

How important – if at all – is each of the following operational priorities in helping you achieve your long-term enterprise revenue goals?

Percentage of respondents (N=100)



Top 2 = Extremely important + Very important

Bottom 2 = Slightly important + Not important

Source: GSMA Intelligence

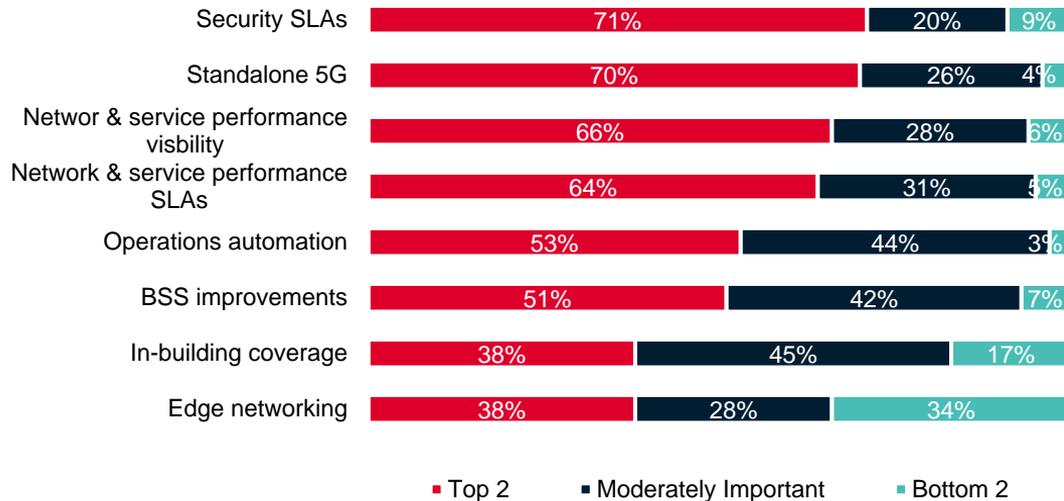
- Consultative sales adapting to diverse customer needs.** Operators view the most important barrier to upsell as their failure to offer the most relevant solutions and services to target customers. To engage vertical customers, operators are building their own specialist solutions to establish customer credibility.
- Investing in security to establish leadership.** Many operators see investing in security as a priority to establish trust with customers and conduct consultative sales for upsell opportunities.
- Access to developer community low in priority.** This works against the expectation that operators will also target business-as-usual IT requirements as part of their upsell strategies.

# Technology capabilities

## Now is the time to define SLAs

**How important is each of the following technology capabilities in helping you to achieve success with enterprises?**

Percentage of respondents (N=100)



Top 2 = Extremely important + Very important

Bottom 2 = Slightly important + Not important

Source: GSMA Intelligence

- SLAs are easier to understand.** Security benefits are difficult to quantify at the best of times as measurement is negative (fines or economic loss). The evolution of 5G and other new technologies will transform the way society functions but significantly expand the threat landscape. Enterprises have often cited security concerns as a barrier to IoT adoption. Operators already recognise the importance of investing in security; enabling security SLAs creates something tangible that customers can measure and understand.
- Using security metrics to build trust.** Operators already track average time to detect or respond when they deliver managed security services to enterprises. As enterprises become familiar with these metrics, operators can introduce security-based SLAs around availability, resilience, latency, bandwidth and access control.

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## In numbers: go-to-market patterns

**30%**

Around a third of operators are currently positioning higher data speeds as the primary 5G value proposition.

**22%**

22% of operators are likely to position slicing capabilities as the primary 5G value proposition over the next two years.

**2022**

The year to watch, as 2022 is the earliest that Rel-16 systems will be commercially ready, allowing operators to go to market with a richer set of offerings.

**>50%**

Cloud, 5G and IoT are included as lead value-added components by more than half of operators going to market.

**4%**

Edge computing is the least likely value-added component that operators will go to market with.

**No.1**

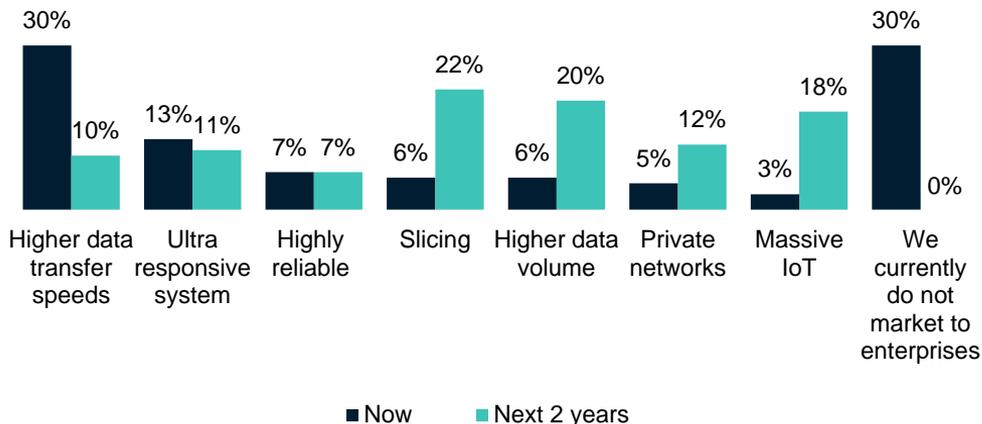
Telecoms equipment vendors are most frequently listed as the top competitor and partner in operators' B2B strategies, closely followed by IT/cloud vendors.

## 5G value proposition

Reluctance to focus on longer term 5G benefits is a potential risk

**What is the primary 5G value proposition you are marketing to enterprises now and expect to market to enterprises within two years in 2022?**

Percentage of respondents. Now – N=100; Next two years – N=90.



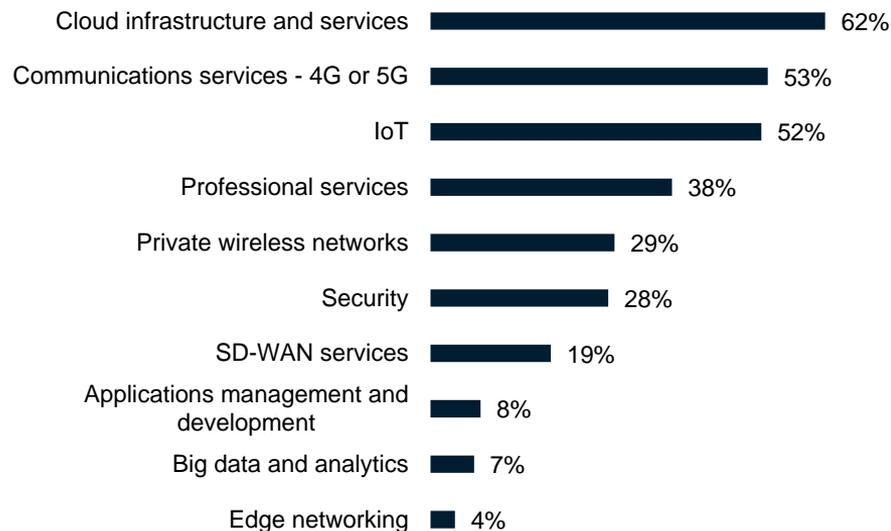
Source: GSMA Intelligence

- **Operators focus on speed.** 5G offers wider benefits than higher speeds, but operators overwhelmingly picked speed as the primary value proposition for enterprise customers in 2020.
- **Commercial reality lags technical capabilities.** Commercial teams among operators are only prepared to discuss the different capabilities of 5G over the next two years. This caution could be due to the wait for 3GPP Rel-16 to be complete and systems to be commercially ready.
- **Slicing versus private networks.** While these involve technical differences in how connectivity is provided, both serve the same base purpose: to service an enterprise customer with a guaranteed level of 5G service on speed, latency or both. The slight difference in favourability from our survey is incidental, with both options likely to be kept in the sales arsenal.

## Lead value-add elements Leading with cloud-led digital transformation

**When approaching enterprise customers, which of the following products are most often included as the lead value-added elements?**

Percentage of respondents (N=100)



Source: GSMA Intelligence

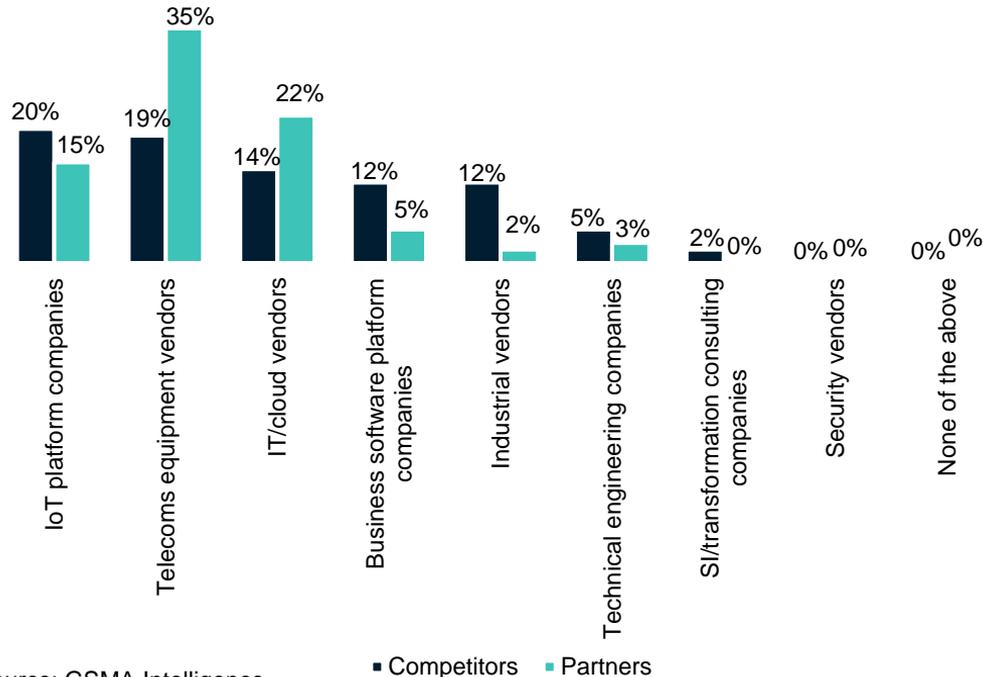
- Operators' cloud v2.0 strategy.** Our analysis of operators' B2B revenue revealed a revival in operators' cloud business propositions. Operators are moving beyond data centres and application hosting to more service-oriented hybrid cloud services. This survey suggests the revised offering is not just for large operator groups; small and medium-sized operators are also leading with cloud as their value-added product.
- IT-led digital transformation.** A differentiated cloud offering is essential for operators to meet IT-led digital transformation requirements. For example, Singtel and Telstra may be small by subscriber size, but ICT as a proportion of their total revenues was 18% and 13% respectively in 2019.
- Unexplored opportunities.** IoT is a familiar value-added lead, but technologies such as private networks, security, SD-WAN and edge are not yet customer-ready for most operators.

# Competition and partners in IoT

## Operators want to lead but winner-takes-all view hurts prospects

Who do you view as your most formidable competitor/partner, besides your telecoms peers, in IoT?

Percentage of respondents (N=100)



Source: GSMA Intelligence

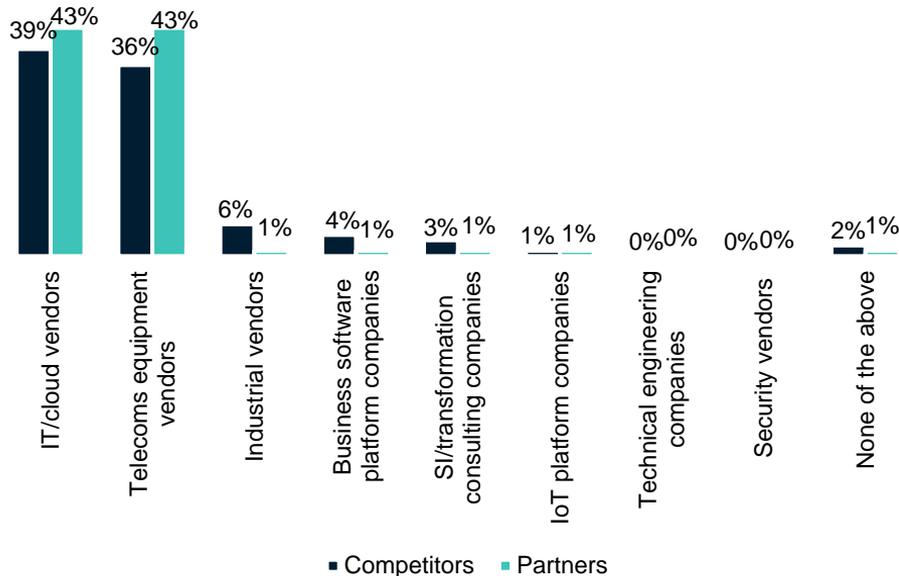
- Operators overstate their relevance in the IoT ecosystem.** They consider IoT platform companies, IT/cloud vendors and industrial vendors as almost equal competitors, as they perceive that their own IoT offerings include cloud, platforms, and software such as applications and analytics. Enterprises have almost equal preference for those vendors that operators see as their top competitors.
- Expansion of partnerships needed.** If operators are to address transformational needs, they must expand their collaborative partner list beyond traditional connectivity domains (telecoms OEMs and IT/cloud vendors). From this survey, it is clear operators are missing potential routes to market via engineering companies, consulting companies and security vendors. These may be receptive to working together on a joint IoT offering that is in line with the way enterprises buy IoT solutions.

# Competition and partners in private networks

## Deployment options will give rise to new suppliers

Who do you view as your most formidable competitor/partner, besides your telecoms peers, for private networks?

Percentage of respondents (N=100)



Source: GSMA Intelligence

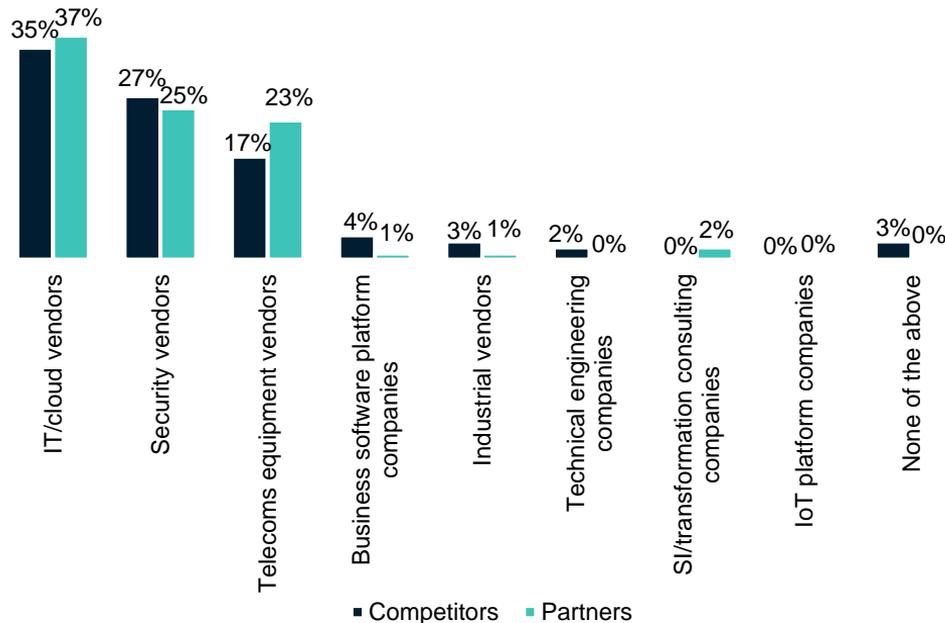
- Realistic view of the competition?** We are surprised to see only two main competitors in the operator view, as other types of competitor offer private networks. For example, the availability of spectrum opens up competition from industrial vendors, SI companies or technical engineering companies. Almost 50% of enterprise respondents who indicated they have invested or will invest in private networks said they prefer to partner with IT and infrastructure vendors.
- Different deployment options offer new partnership opportunities.** Considering that most operators are aiming to target vertical use cases with 5G capabilities and private networks, it is naive to ignore the existing relationships enterprises already typically have. Industrial vendors such as Bosch or Siemens have similar ambitions with their own proprietary offers – as will technical engineering companies.

# Competition and partners in security

## Secure cloud enhances operators' cloud v2.0 propositions

Who do you view as your most formidable competitor/partner, besides your telecoms peers, in security?

Percentage of respondents (N=100)



Source: GSMA Intelligence

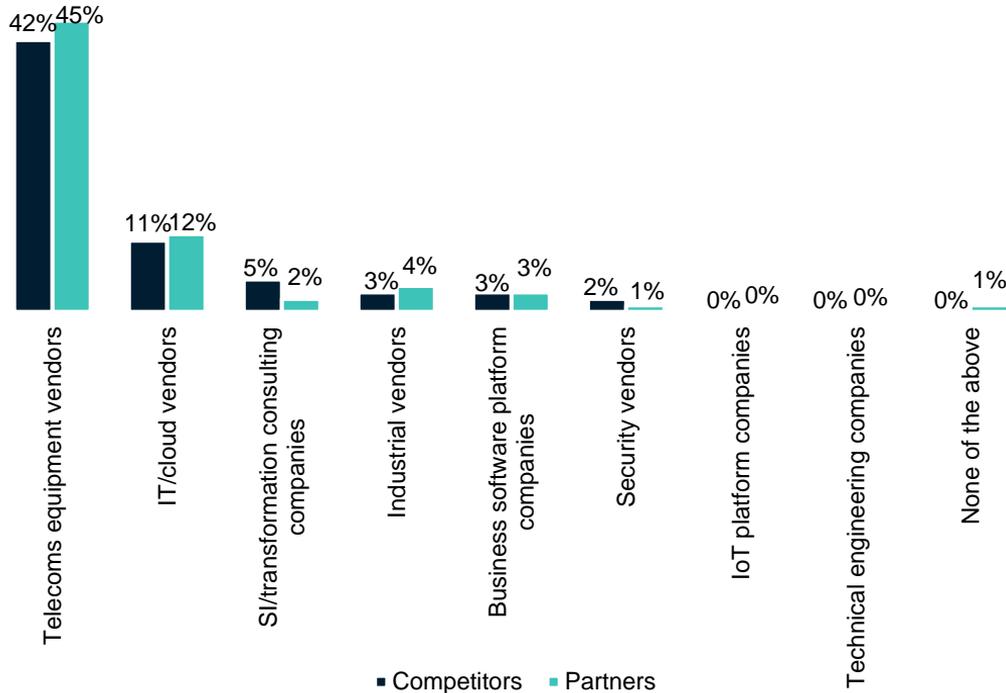
- **Sweet spot for operators in cloud v2.0.** Operators are clearly targeting their cloud offerings to address the security risks inherent in enterprises' cloud environments, typically with multiple cloud vendors operating across multiple sites. Doing this well requires deep knowledge of both IT/cloud vendors and security specialists, especially those in cloud security.
- **Securing 5G cloud adoption.** Telecoms equipment vendors are crucial partners in operators' ambitions to secure their 5G proposition for vertical customers. 5G touches on cloud and virtualisation, which in turn rely on secure software. Telecoms equipment vendors are in a strong position to support operators' quest for leadership in enabling secure 5G use cases.

# Competition and partners in SD-WAN

## Upsell success requires accelerated digitisation

Who do you view as your most formidable competitor/partner, besides your telecoms peers, in SD-WAN?

Percentage of respondents (N=100)



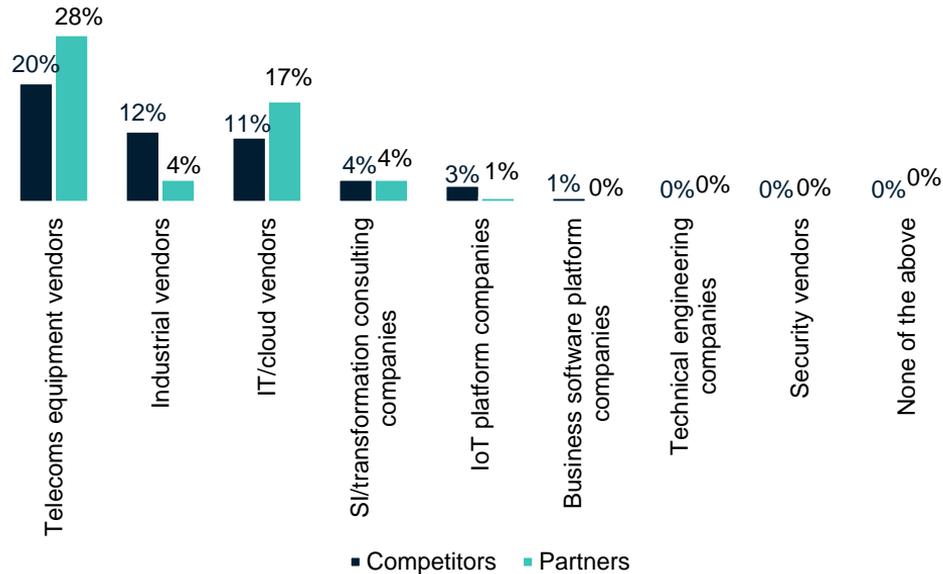
- Upsell tactics become clear.** That operators see telecoms equipment vendors as overwhelmingly the main competitor and partner reveals their go-to-market tactics for SD-WAN services. They are selling it as the migration story from existing MPLS contracts. BT Global Services has attempted this for many years, but recent results suggest this is not growing fast enough to outpace the decline in traditional voice and data services.
- Parity of features and experience.** As part of operators' upsell tactics, they are aiming to persuade existing customers to abandon their ongoing managed services contracts offered by vendors such as systems integrators or IT value-added resellers. Operators need to ensure parity of features and experience, which requires accelerated digitisation of their processes. This means operators must meet the flexibility and agility that SD-WAN promises and offer the same experience for enterprises using IT services (e.g. via self-service portals).

# Competition and partners in edge networking

## Operators experiment with routes to market

Who do you view as your most formidable competitor/partner, besides your telecoms peers, in edge networking?

Percentage of respondents (N=100)



Source: GSMA Intelligence

- 5G and early use cases of edge.** 5G is the leading access network for early edge use cases, according to our study of the edge market in China. Use cases, deployment modes and partnership models are being trialled with telecoms equipment vendors, industrial vendors and IT/cloud vendors.
- Operator role is gradually defined.** Large operator groups such as Vodafone, AT&T, Verizon and Telefónica raced to the market with press releases for edge partnerships with AWS and Microsoft Azure. Vodafone has one of the most clearly defined roles; it is investing in IT and software skills to refresh its overall skill base, growing access to the developer community and tapping into existing assets to deliver the ultra-low latency expected of edge computing. The operator that digitises their processes the fastest gets to success in edge quicker.

## Non-traditional partners Going big on vertical specialists

Please rank the top three non-traditional partner types you believe could be crucial to the success of your enterprise strategy

Percentage of respondents (N=100)



Source: GSMA Intelligence

- Know your customer via industry specialists.** Operators expect to target the transformational agenda of their vertical target customers. This go-to-market approach is in line with enterprises' adoption attitudes. According to our Enterprise IoT Survey 2019, 65% have deployed IoT as part of a broader digital transformation agenda, rather than as a standalone initiative (35%).
- ML/AI partners to complement analytics offering.** In aggregate, this is in line with operators' plans to expand into big data analytics and applications over the next two years. European operators stand out in picking these types of partners as most crucial to their B2B strategies.
- Minimal attention currently on applications.** Limited emphasis on the developer community and edge computing vendors counters our hypothesis that operators should be targeting business-as-usual IT requirements.

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