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# TELCO AND HYPERSCALER STRATEGIES: HOW TO CO-EXIST?

Webinar: Questions and answers

# Telco and hyperscaler strategies: how to co-exist?

*This document outlines the questions and answers received from the STL Partners webinar,* ***Telcos and hyperscaler strategies: How to co-exist?****, which was hosted on Wednesday 2nd June 2021.*

***You can watch the recording of the session, and also access the slides, using the link here.*** *In this document, we seek to address the questions raised in the webinar that we were unable to address in the time available.*

*If you have any questions not addressed in the webinar or this Q&A document, or want to hear more about our latest research or from our speakers, please contact:*

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In the following pages, we have categorised our questions into three broad categories. Please use the links below to be directed to each section:

# Which other stakeholders should we consider when discussing these partnership models?

1. **What will happen to telcos if some enterprise verticals pursue MVNO/MVNx , using open RAN to penetrate the MNO's core in order to build their own services, e.g. Automotive?**

There's certainly a possibility that telcos will find themselves squeezed out of some vertical markets and private networking opportunities in the way you suggest. Telcos will have to compete for these opportunities in the same way as any other provider and ecosystem partner: they don't have an automatic right to play in them. By the same token, there's no reason why they shouldn't succeed in this space, either: if they can be agile; work with ecosystem partners; be prepared to develop services over cloud and on-premise infrastructure they don't own or control; etc.

2. **What is STL Partners' view of what it will take for CSPs to go for a platform or vertical play? Is it related to size (in-house R&D), footprint, global coverage, federation capabilities etc?**

Most telcos still have a preference for horizontal, platform plays, as this is closer to their core business, although we have seen large telcos invest in verticals (particularly through acquisitions). Telcos have started to invest in developing their networks to become more like the cloud platforms that underpin the large cloud providers' services. In fact, it's a key part of the 5G core. Part of this has been the move towards SDN, network virtualisation and integrating edge computing. This flexible platform will allow telcos to innovate quickly and create new differentiated services on top if they have the desire to change their financial and operational models.

Determining which play to commit to depends on the risk-reward trade-off between the size of the opportunity versus the telco's ability to compete. This depends on the fundamental size and growth of each area, the nature of the market and competition within it, and the fit with current skills. This should also consider the availability of partners and acquisitions.

In terms of what it will take – telcos ultimately need to build innovation capabilities, skills and processes that will enable them to sustainably identify and build services that will deliver value. These include agile product development processes, excellence in analytics, product and service marketing, customer experience management, partnering (or ability to participate in ecosystems), and software skills. We cover this in more detail in our reports below:

- How mobile operators can build winning 5G business models
- Growing B2B2X: Taking telcos beyond connectivity and 5G

3. **How do you see the relationship developing between hyperscalers and Tier 2 & 3 telcos?**

Access to NFaaS and telco PaaS on hyperscale cloud should help Tier 2s and 3s in a number of ways: 1) cost reduction and operational simplification / rationalisation of existing software platforms; 2) help to scale and target opportunities beyond their limited network footprint; and 3) opportunity to develop vertical-specific use cases – in a similar way to their larger rivals but perhaps with greater agility and less risk: starting small, fail fast, etc.

**4. How important is harmonisation across operators for app developers? How are operators addressing this aspect in their API exposure strategies?**

It is certainly important as enterprises and developers would find it much easier to contract with a single entity and get access to different operator capabilities globally. There are many initiatives in the industry covering this, which you can find more information on here: https://stlpartners.com/edge-computing/10-edge-computing-forums-driving-the-industry-forward/

**5. How do you see hyperscalers working with tower companies and the latter's potential role in this ecosystem? Are they a competitor or a potential customer/partner?**

It is very unlikely that the two will compete. The hyperscalers are not looking to build and operate towers, however there are some interesting dynamics as a result of edge. Companies such as American Tower and SBA in the US are investing in their real estate to become edge facilities providers and the hyperscalers would be tenants (customers) in those scenarios.

**6. How do we mitigate the partnership risks to telcos that were highlighted by David?**

It's a strategic decision for each telco which functions and capabilities (edge, network or IT) they migrate to the public cloud. Equally, not all the business models we discussed imply the same degree of dependency on the hyperscalers for the provision and development of the software and platforms involved. For example, NFaaS (business model 2) implies more dependency on the hyperscaler than telco-specific PaaS (business model 3) or business model 1: where the telco is essentially partnering and collaborating with the network-functions vendor in much the same way as now, only with those functions deployed and consumed (at least in part) over the cloud.

In practice, I think Tier-1 telcos will want to retain control over their mission-critical network functions regardless of where they are deployed; and they're likely to be deployed over hybrid and multi-cloud rather than at a single hyperscaler. So this will mitigate the risk of 'putting all of their eggs in one basket', as it were.

# What other factors should we consider with relation to hyperscalers?

7. **Given that the mainstream hyperscalers are primarily subject to US government regulations and jurisdiction, would the hyperscalers be open to coexist with the MNO's partners in other countries, for example those in China? Also, how can the contracts between the hyperscalers and MNOs be de-risked from sudden governmental policy changes?**

Good questions. However, I can't think of an MNO or Tier 1 player to which the need to partner with a US-based hyperscaler in some markets but, say, Alibaba Cloud in China would actually apply. I imagine that global enterprises with operations in China or Russia, for example, need to make separate networking contracts for their operations in those countries from those in Western markets; and the same would undoubtedly apply to their cloud partnerships (including NFaaS or PaaS relationships). In terms of de-risking contracts with hyperscalers, I think telcos' legal and regulatory affairs departments are pretty well versed in how do that already!

8. **Do you believe operators are ready to provide the network accessibility, programmability and instructibility that you mention at the end of the presentation? What are the challenges you foresee and what are your recommendations?**

Some operators have an appetite in embracing this thinking around more network-enabled applications or services through network accessibility and programmability but few have articulated a clear vision and plan for this. The primary challenges with this are the lack of alignment between telco B2B teams and technology teams, and the legacy systems and challenges with decoupling the different layers of capabilities within them (network, IT, data etc.).

Greater integration between the network and application requires more API exposure to the underlying network functions and network operations systems (particularly for the instructibility aspect). Our recommendation is for operators to see this as a key part of moving to a more ecosystem-centric model and focus on providing more API exposure (and taking an open API approach). We cover this in more detail in our report 'Growing B2B2X: Taking telcos beyond connectivity and 5G'

9. **What are the key differences in the strategies adopted by Azure, GCP & AWS towards telcos?**

GCP tends to have more of a software platform focus than Azure or AWS, helping to enable multi-cloud for its telco partners. GCP's recent partnership announcements with Orange, Telus and Vodafone, as discussed in the webinar, are centred around multi-cloud orchestration which are substantiated in software rather than embedding in their own cloud. This software emphasis is likely due to GCP's slightly later entry into the cloud space in comparison to its competitors; so instead of trying to compete head on, they are taking a different approach.

AWS also is focused more on the aspects of the relationship with telcos that correspond to its overall business model: using telcos as a delivery channel and mechanism for its application developer

community (e.g. vertical-specific, low latency-dependent use cases: NaaCP); or telcos as a customer for telco IaaS (public cloud as telco cloud) or telco SaaS (NFaaS).

Azure is also focused on these opportunities but has, we feel, a broader vision based around promoting the development of a vibrant ecosystem of application developers and vertical-market players creating services delivered from the edge – including the telco edge – and aiding telcos to evolve their networks and capabilities to participate fully in the new markets this opens up.

## What are the commercial considerations?

**10. Who is going to play a key role in edge, and what are the implications for CapEx and OpEx, when both MNOs & hyperscalers need distributed computing?**

That's a big question particularly given the edge ecosystem is still nascent and there are different ecosystems coming together: the service providers from the networks, cloud and data centre providers, traditional enterprise IT and industrial applications and systems. It also depends on which part of the 'edge' we're talking about, for example network/multi-access edge vs. on-premise edge.

The hyperscalers have a strong established presence in the cloud already and have already made some movements towards the edge via new products and services such as Azure Stack, AWS Outposts and their IoT offerings. We argue that the edge cloud cannot be standalone and will be an extension of the cloud on a distributed cloud continuum, therefore established cloud providers will undoubtedly be important in this ecosystem. Our Edge Ecosystem tool looks to address this question, looking at where different companies play in the edge value chain: https://stlpartners.com/edge-computing/edge-computing-ecosystem/

If we're talking about edge compute / MEC, I think in practice most telcos will rely on the hyperscalers' edge cloud stacks (on telco sites, on-prem or in third-party data centres), owing to the scale and cost efficiency benefits (opex and capex). But that doesn't mean telcos can't develop their own distinct services and use cases; nor would it be in the interests of the hyperscalers to thwart them in this ambition (if the telcos have got that ambition, that is). The more business comes through their cloud, the better it is for the hyperscalers!

**11. What are the different commercial models offered by the hyperscalers to address the CapEx vs OpEx challenges? How are new revenues shared between the participants - it looks like a co-competition model?**

Hyperscalers are offering telcos an alternative through their "as a service" models when they sell-to. They also offer revenue share models for sell-through, i.e. providing their edge platforms (e.g. AWS Wavelength) which the telco can resell.

**12. Will telcos continue to be CapEx heavy and hyperscalers CapEx light?**

The hyperscalers have typically started out as 'service differentiators', keeping CapEx light, focusing instead on a flexible OpEx model to drive service innovation and agility. In our report 'Why CFOs must start to drive telecoms business model change', we described capital investment as being

similar to a game of prisoners' dilemma, particularly when it comes to understanding what other telco competitors do and the danger of not investing. Ultimately, if telcos continue to be CapEx heavy and investing only in infrastructure, they are missing out on value creation and are instead competing on price for increasingly commoditised connectivity services.

We argue that telco CFOs need to preside over a fundamental change in the financial and commercial models in order to enable telcos to unlock greater agility, as well as platform and service innovation. This will be crucial in telcos' ability to capture value and ensure future growth,

**13. Do hyperscaler partnerships represent a cost saving or revenue uplift opportunity?**

The answer is not prescriptive but in general, hyperscaler partnerships can be different combinations of cost saving and revenue uplift as well as a trade-off with the level of strategic dependence. Each partnership will differ from one to another depending on the nature/type of partnership (we cover the different partnership models in more detail in the webinar).

## What are STL Partners' future predictions within this space?

**14. Do you believe that a hyperscaler may acquire a large telco? What prevents hyperscalers from encroaching into the telco market and providing communication services themselves?**

We believe this is unlikely as this would be a very different business model for the hyperscalers. Telcos operate on a much more national scale (excluding interconnectivity on a global basis) whilst the hyperscalers are global players. On top of that, there would be strong implications for the hyperscalers in terms of regulation and privacy if they were to provide communications services and effectively become a telco themselves.

What would the hyperscalers' interest be in 'becoming telcos'? They're providers of hyper-distributed, hyper-available computing and software; but they'll continue leaving it to other types of business to develop the applications and use cases, and to provide the networking capability that distributes them to where they are needed.

**15. How can the increasingly dispersed pools of in-house and third party provided IT, apps and data resources enable digital platform strategies built on cloud and data analytics?**

Maybe the premise to this question needs to be put the other way round: perhaps it's only the fact that all the elements of such digital platform strategies are drawn from a diverse pool of specialised ecosystem partners that enables those strategies! One of the USPs of hyperscale cloud is that it does provide an environment and set of tools to integrate different workloads, apps and data sets in this way.

**16. What do you believe will be the end result for telcos given the shift from a siloed and centralised IT delivery architecture to one that is distributed, collocated, and interconnected?**

Another huge question! I think we could end up with multiple types of 'telco': some focused on more basic forms of connectivity and communications services – a low-margin business. Others will have

different forms of specialisation: vertical market; public mobile; private mobile; use case-specific; companies specialising in deployment and operation of physical infrastructure; those focused on different parts of the networking business (e.g. long-distance vs access vs edge / aggregation); and new types of 'telco'. See our upcoming reports on new telco actors and on telco value chain disaggregation!

**17. With the exception of the Dish and AWS partnership, all other use cases are more or less a classic vendor-telco relationship, where the cloud infrastructure is used for expected loads. But for the actual NW and the NFVs, the relationship between telcos and hyperscalers would be different and therefore not as clear. What do you see as the arguments against partnering for this scenario?**

There are both risks and opportunities for telcos when it comes to partnership agreements in the network and NFV space, although ultimately, we see it as an opportunity for telcos, particularly in the area of net compute. However, one of the arguments against this partnership scenario is that telcos may become over reliant on public cloud for the provision of NFaaS. Further, if telcos allow hyperscalers to roll out edge computing services across their infrastructure, they may receive only a minimal share of the value chain unless they actively participate beyond connectivity provision. Finally, if telcos were to simply consume hyperscale-cloud-hosted NFaaS and make their own distributed edge available to hyperscalers as a platform for their edge cloud (NaaCP), telcos could risk being consumed by the hyperscalers. Not only would their network edge be swallowed up into the hyperscaler cloud and become a delivery platform for the hyperscalers' edge compute-based services (not their own); but the network functions that are critical for telcos to deliver even their core connectivity services could also be ported to the public cloud and delivered as a service by the cloud providers.

**18. How far have the operators achieved the objectives of being agile and cloud native through NFV & SDN?**

There is still a ways to go, as there are very different perspectives on how operators see cloud native being deployed in practice. Some operators (typically the larger operators or operator groups) see cloud native as a key enabler for critical business model transformation and have more ambitious transformation objectives but others see cloud native networks/operations as the next technology evolution that is a challenge to introduce. Some have more a sense of urgency in driving this change in their operating model through cloud native networking but others less so, which may reflect their market circumstances.

The extent to which operators have achieved the objectives of cloud native through NFV/SDN also depends on the approach they have taken to telco cloud (see Telco Cloud Manifesto here). Some operators voiced reservations that standards and cloud native technology from vendors may not be mature yet. Others see themselves as software-based technology firms and see themselves running their own continuous CI/CD pipelines and building a rich toolset to accelerate the move to cloud native.

We published a report 'Cloud native: just another technology generation?' on this topic, which is based on an interview with 15 industry leaders from major CSPs globally.

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