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TELCO CLOUD: WHAT MWC REVEALS ABOUT OPERATOR STRATEGIES

Webinar: Questions and answers

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This document outlines the questions and answers received from the STL Partners and Red Hat webinar, '**Telco cloud: What MWC reveals about operator strategies**' which was hosted on Wednesday 29th March 2023.

You can watch the recording of the session, and also access the slides, using the [link here](#). We have included the following timestamps for the webinar recording:

- **02:45** for the introduction to our presenters and panellists
 - **Ian Hood**, Chief Strategist, Red Hat
 - **Joanna Newman**, Global Edge and 5G Principal Manager, Vodafone
 - **Chris Barraclough**, CEO, STL Partners
 - **Will Davies**, Consultant, STL Partners
 - **Kuba Smolorz**, Consultant, STL Partners
- **03:25** for STL's presentation on telco cloud and related announcements at MWC
- **29:18** for Red Hat's presentation on how Red Hat is accelerating innovation and shaping operator strategies
- **35:54** for our panel discussion and audience Q&A

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

- **Ian Hood**, Chief Strategist, Red Hat, ihood@redhat.com
- **Joanna Newman**, Global Edge and 5G Principal Manager, Vodafone, joanna.newman@vodafone.com
- **Chris Barraclough**, CEO, STL Partners, chris.barraclough@stlpartners.com
- **Will Davies**, Consultant, STL Partners, will.davies@stlpartners.com

Webinar questions and answers

The below questions were received from the webinar audience during the live session. The first section includes questions and answers, addressed during the webinar and the second section includes questions those not covered during the webinar.

Live questions and answers

Do you see a marketplace developing for APIs or on top of the APIs, independent of hyperscalers?

Ian Hood, Red Hat: Marketplaces are an interesting way to consume things, particularly when looking to consume on demand. I expect as these APIs become more mature; they will be able to be consumed on marketplaces. Whether or not a telco operator will create their own marketplace is another question, but I see that as an option. We already have many operators, just like the hyperscalers, that are cloud providers that have a marketplace so APIs could become available on them. However, there are some big challenges to marketplaces for example, enabling a multitenant way to access the API, considering legal issues with selling APIs in different countries and having a way to build an on-demand service, e.g. delivery or billing. Setting up a marketplace for an on-demand service is very difficult but it can be done with a lot of work.

Chris Barraclough, STL Partners: Nobody is saying this is the end of the road, we are at the beginning. The work that's been done thus far, is in many cases, an illustration of what can be done in the future but we see this as the beginning of a journey which should result in increasing value being delivered to customers. Marketplaces will be a part of that – there will be lots of distribution channels!

This APIs you listed earlier don't look that exciting/high value, do you see differently?

Joanna Newman, Vodafone: It is about the capability stack, what capabilities are being presented by the APIs and how can they be combined and utilised in the future. Looking at the APIs on show at MWC, the edge site routing API allows for a synched video feed with a return path across multiple MNOs and continents and is a really big deal, QoD demonstrates how quality on demand can be requested from a service, edge site selection will be critical to allow future latency sensitive use cases. While they may sound fairly simple and straightforward, they have been selected because of the building blocks they provide for future use cases.

Question for STL'ers: what do you understand by 'NaaS'?

Chris Barraclough, STL Partners: NaaS is about enterprises and consumers being able to use and get capabilities of a network, any network that suits the application that they want to use. It's all been best efforts, you get what you get, up to now. In future, enterprises and consumers can have more control where they can buy slices or packages that give them the capabilities that they require, delivery could also be automated. Eventually, customers should be able to always expect an appropriate level of performance rather than just best efforts.

Post-webinar questions and answers

1. **You mentioned you expect an uptick of 5G SA and open RAN deployments in 2023. Will this actually be the case or are telcos questioning the value of 5G SA? Alternatively, is putting everything on the cloud and managing a virtualised stack in house perceived as just too complex?**

STL Partners: We believe there will be an uptick in deployments, but delays have been caused by technical challenges (as you mention) but also by a myriad of commercial/ cultural challenges that some telcos perceive as risks to deployment of 5G SA. We cover the slowdown of 5G SA deployment in detail in our report titled '[5G Standalone Core: Why and how telcos should keep going](#)' but to give some examples of perceived risks:

- Mass-market use cases are not commercially ready in part due to insufficient partnerships with application developers and lack of devices to address new use cases
- There is uncertainty about consumer and business demand for new use cases
- Fully exploiting 5G SA requires an evolution of telco processes and organisations to support cloud practices and operations.

That being said, we believe that these challenges are being addressed, and we have seen examples of operators adopting relatively low risk approaches to the same problem areas and expect others to follow.

2. **I see carrier examples below the slide showing different telco pathways to Telco Cloud. How would you characterize Verizon?**

STL Partners: We classify Verizon as pathway 3 called 'DIY best-of-breed'. Verizon are leveraging COTS hardware and VNFs/CNFs provided by a variety of vendors, acting as their own systems integrator.

3. **Despite significant network achievements and approaching competitive network parity, Rakuten's uptake has been visibly below expectations. DISH is following with a US cloud build, what lessons/mistakes do you feel Rakuten needs to address to translate their economically advantaged network, into profitability that DISH may benefit from?**

STL Partners: We believe this is more about sales and go-to-market strategy than network performance. Rakuten's network in Japan seems performant although this is a unique market, and it is difficult to draw conclusions for the US. Arguably, Rakuten did not do enough to communicate the benefits of their approach for customers, particularly enterprise customers. An early time to market with slicing could be an opportunity for Dish that was not open to Rakuten as it was too early in the 5G lifecycle.

4. **What was the open-source org with Google that Ian mentioned?**

STL Partners: The project that Ian referred to was Nephio, a part of the Linux Networking Foundation.

5. **Joanna referenced Partner Markets above and beyond Vodafone and Chris referenced a wholesale/indirect sales opportunity to avoid telcos investing in the same APIs. How should this 'moral suasion' be pushed through an industry which historically loved to reinvent the same wheel?**

STL Partners: Marketplaces will likely be the prevailing distribution channel for APIs. Marketplaces make it easy to compare solutions, allowing the best to prevail. This does mean that there may be APIs that telcos want to compete on, particularly if they are serving the same geographies or customer segments. However, telcos who collaborate on APIs that offer the same functionality, enhance the overall value through scale and coverage. Not sure there is a need or ability to deploy 'moral suasion' to convince telcos to collaborate – if they don't then an intermediary will step in and take away complexity as an aggregator. Clearly, the context will change across different geographies depending on the market share of leading telcos, but it's not unreasonable to expect this dynamic to play out in many developed countries. And the support of the GSMA's Open Gateway and Camara suggests that most telcos are on board with the need for collaboration. The challenge will not be a technical one – it will be whether they can manage to collaborate on a simple commercial solution.

6. **What is the importance of standards to edge computing? Are ETSI MEC standards still relevant?**

STL Partners: Standards will likely be critical to edge computing, particularly if operators decide to collaborate on edge APIs, as an API's effectiveness will be reliant on its ability to access data from different environments. If edge architectures are consistent and built to blueprint across operators regardless of which vendors have been used, then it will make it far easier for APIs to be interoperable, offering more value to developers and end customers. ETSI MEC could therefore play a role in accelerating the proliferation of edge APIs, offering customers more value from network edge solutions. However, other standards initiatives such as the OEI could become the de facto, it's hard to tell at this stage.

7. **Could you please compare MicroShift with other alternatives such as MicroK8S for edge applications? Thanks.**

Red Hat: As MicroK8S is an upstream project led by our competition, I will pass on comments comparing it / regarding it as it relates to Red Hat MicroShift which has now been productized as Red Hat Device Edge.

More info on Red Hat MicroShift may be found here: <https://next.redhat.com/project/microshift/>

More info on Red Hat Device Edge: <https://www.redhat.com/en/technologies/device-edge>

8. **Azure offering seem to consolidate the hardware pieces to those certified by MS, whereas 5G is said to disaggregate hardware. What is the industry response to this move by MS?**

STL Partners: Microsoft's approach clearly limits the telco's ability to have complete customisability over their stack but it does ensure that all of the components are interoperable and can be managed effectively in Azure. The first decision telcos must make is whether they have an ambition to ultimately run their networks in the public cloud and whether they would consider Azure as an option. If they know they will use private cloud or wouldn't consider Microsoft as a public cloud provider, then they will be unaffected by this. If they do, then they need to consider whether they would value the benefits of scalability and minimised integration costs associated with Azure as more important than the customisability and flexibility that may be offered by going with other hyperscalers. Our latest data from [STL's telco cloud tracker](#) suggests that AWS have significantly more telco cloud deployments live than Microsoft Azure, the lack of flexibility offered by Azure may be a factor contributing to this observation. Having said that Azure has had success with AT&T and is looking to extend this to other telcos going forward.

9. Application clouds is fascinating. Where can we learn more about that?

Red Hat: There have been a couple of white papers regarding virtual application networks (VANs) and data centric application fabrics

<https://itnext.io/virtual-application-networks-van-for-multi-cloud-multi-cluster-and-cloud-edge-interconnect-1f63a8081f41>

<https://github.com/Enterprise-Neurosystem/Secure-AI-Connectivity-Fabric/wiki/whitepaper-202206>

We are building solution briefs on application clouds / AI fabrics but they are not public as yet.

Get in touch:

If you have any questions intended for Red Hat or would like to learn more about their products and solutions, please contact:

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