Telco-hyperscaler partnerships: Where are we in building the edge and what role do telcos play?

STL Partners

29 November 2022

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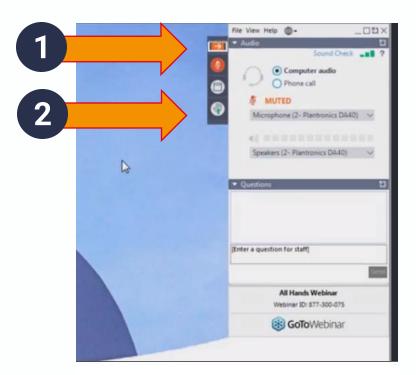
Agenda

1	Introduction and housekeeping	5 minutes
2	Where are we in building the edge and what roles do telcos and hyperscalers play?	10 minutes
3	Open source innovation: Enabling business value with multi-cloud edge	10 minutes
4	Panel discussion and Q&A	30 minutes
5	Wrap up	5 minutes

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Our speakers



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Global Edge Computing and 5G Principal Manager

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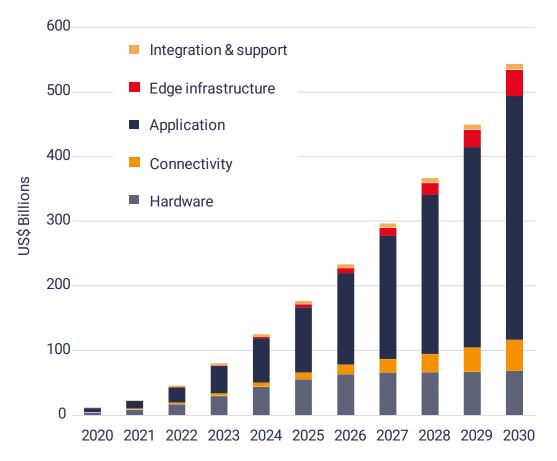
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The overall edge market is estimated to exceed US\$500 billion by 2030 but the network edge capacity buildout is slower than expected



Total edge computing addressable revenue globally by value chain component, 2020 – 2030



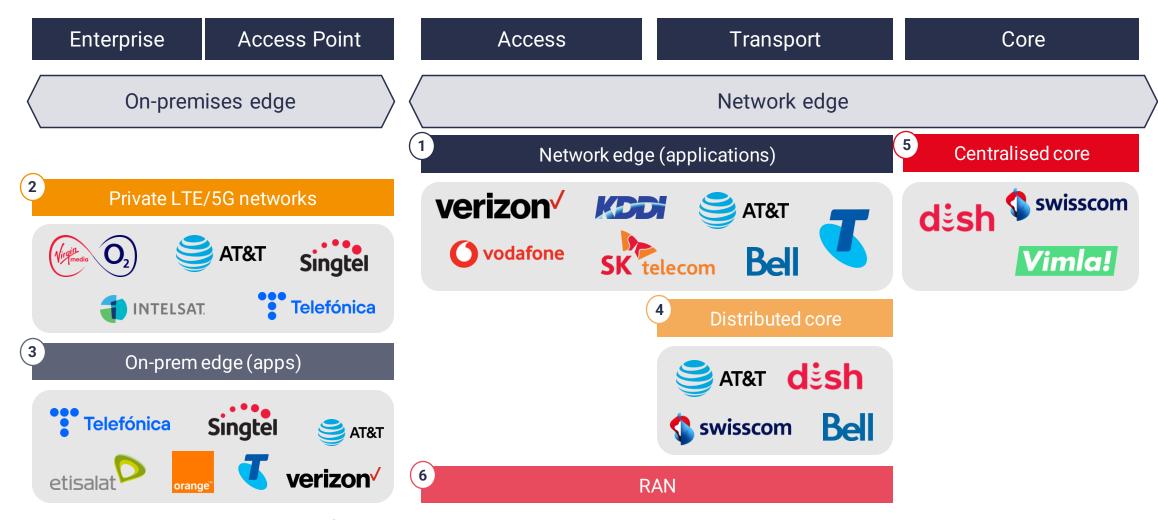
Global network edge data centre* forecast (sites and servers)



Telecoms operators and hyperscalers have been engaging in partnerships across a number of different domains



Edge domains (for telco-hyperscaler partnerships)



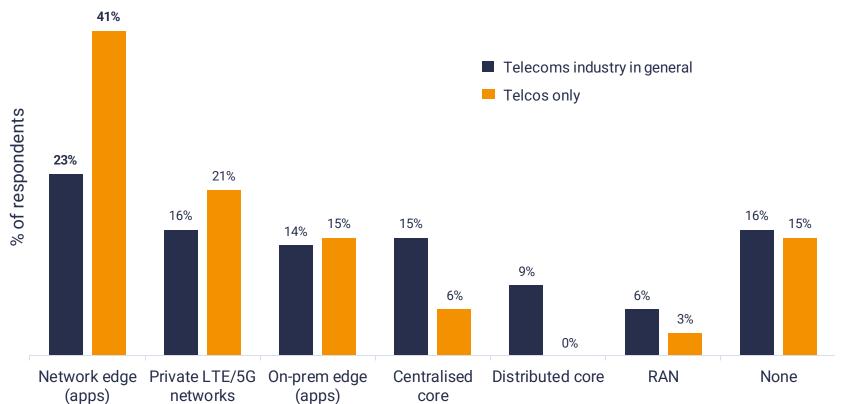
Telcos operators see hyperscalers as key partners in helping to bringing compute and storage to the edge



Network edge is the most mature edge domain for telco-hyperscaler partnerships, followed by private networks and on-premise edge

In which edge domain is your engagement/partnership with hyperscalers most mature?

c.40% of the capacity at network edge sites will be built with hyperscalers' support in the next 1-2 years

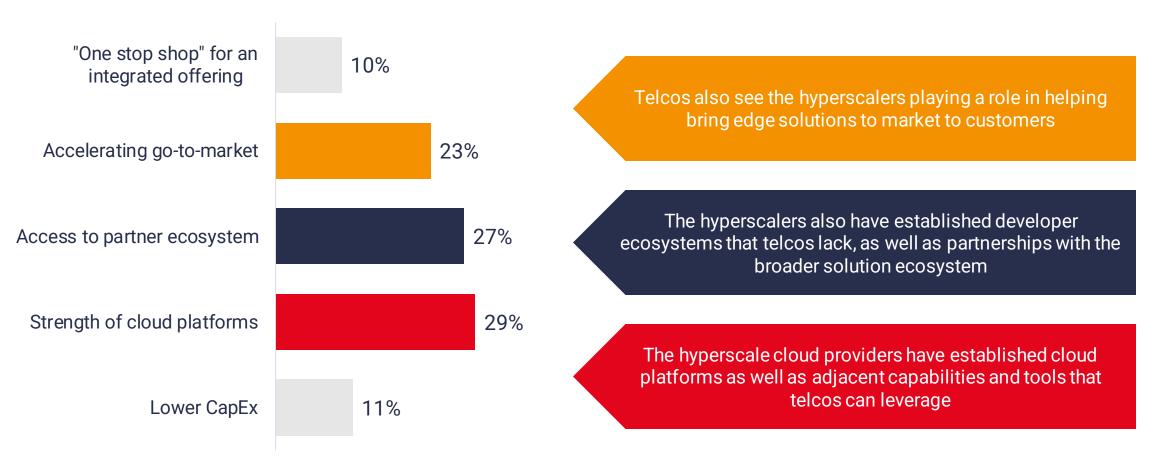


- The hyperscalers have been increasingly active in private networks and also have established on-premise edge solutions and partnerships
- Results show differences in how telcos will build the edge which means the edge will be made up of hybrid, multi-cloud environments

Telcos see the strength of hyperscalers' cloud platforms as the most important advantage of partnering



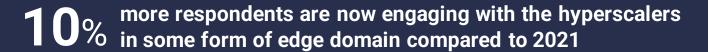
Q: What do you perceive to be the main benefits for telcos in using hyperscaler AWS, Microsoft Azure, Google Cloud and Alibaba Cloud infrastructure and platforms for edge computing?

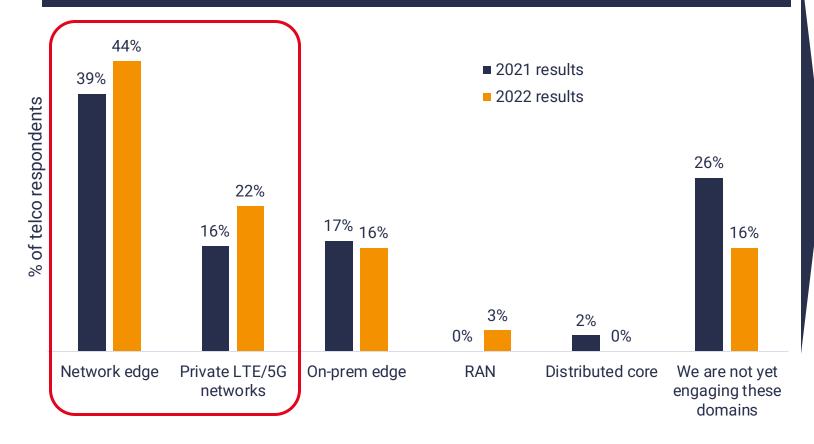


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Telcos have even accelerated their collaborations with the hyperscalers in the past year, including at the network edge







We are also seeing more multipartner scenarios

Some examples include:

- AT&T partnering with Microsoft, HPE and Google
- Verizon with AWS, Red Hat, Microsoft, Nokia
- Bell Canada with AWS and Google
- Singtel with Microsoft, AWS, Intel and own Paragon MEC platform

...but there are few examples so far of partnerships with multiple hyperscalers in the same domain

∇

Given hyperscaler partnerships are inevitable, telcos are focused on how they can retain value

For commercial teams (e.g. Strategy, Enterprise, Wholesale):

For technical teams (e.g. Network, IT):





Hyperscalers threat of becoming telecom companies



Limits competitive differentiation (CSPs partnering with same HCPs)



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Hyperscalers threat of becoming telecom companies



Difficulty integrating with existing network components



Difficulty moving workloads to other cloud platforms



11

The next step for the industry is to focus on furthering partnerships and developing hybrid, multi-cloud capabilities



Our key recommendations:

Evaluate partnership opportunities that accelerate key strategic areas

- Partners vary in their ability to serve different use cases and verticals as well as solution and GTM/delivery capabilities
- Given most of the value sits in the application layer, identify suitable partners that help target customer segments and build specific value propositions that address these opportunities

Identify areas where telcos can provide unique value

- Telcos also have established 'trusted' relationships with enterprises that they should leverage – telcos can develop some integration or professional services capabilities that help build a reputation as a trusted strategic advisor
- There is also a resurging interest in applications interfacing with the networks they run over - making the network and edge compute as easily accessible as possible (via APIs) can enable better application outcomes

Develop the capabilities for multicloud

- A key area where CSPs can provide value is in the PaaS layer and orchestration, particularly in a heterogeneous hybrid, multi-cloud environment
- This is about providing the ability to manage and monitor workloads and services across cloud environments with a single pane of glass (for both internal operational teams as well as for enterprise customers)

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Open Source Innovation Enabling Business Value with Multi-cloud Edge



Ian A. Hood, P. Eng. Chief Strategist – Global Industries October 2022



The business drivers behind edge computing

Bringing new technologies and containerized applications to create differentiation



Fostering faster datadriven outcomes

- Deliver better products
- Make faster decisions
- Use resources more efficiently



Delivering better experiences, anywhere

- Use immersive apps
- Online streaming, gaming, etc.
- On a train, ship, oil rig, or even in space

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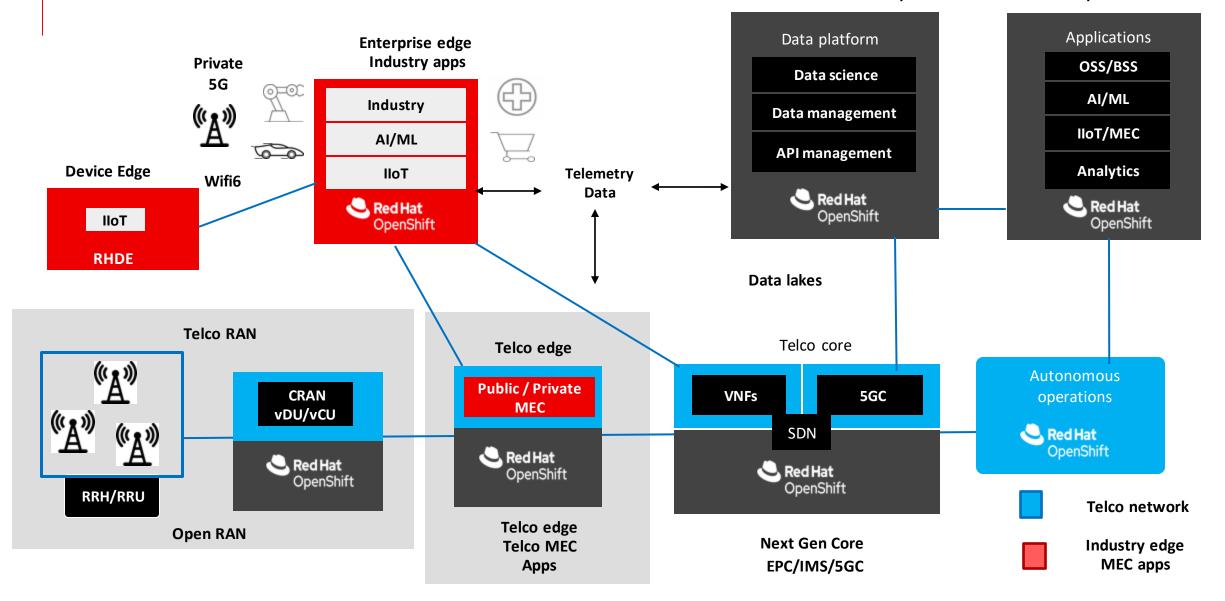
Meet data residency/ sovereignty requirements

 Storing or processing of personal data (subject to legal protections of a country)
 within a geographical area



Autonomous industry edge services

On-premise data centers and public clouds





Enabling 5G/edge business value with AI/ML



Data driven diagnosis
Brain/lung scans
Diagnostic surveillance
Disease /outbreaks



Democratize data science for oil and gas exploration



Auto Concierge Autonomous driving



Modular AI platform
AI-powered Intelligent apps
AI as a service



Al-based edge intelligence platform Al-Powered customer experience Neural network ecosystem



NPL text analytics agriculture grants
Jupyter notebooks as a service



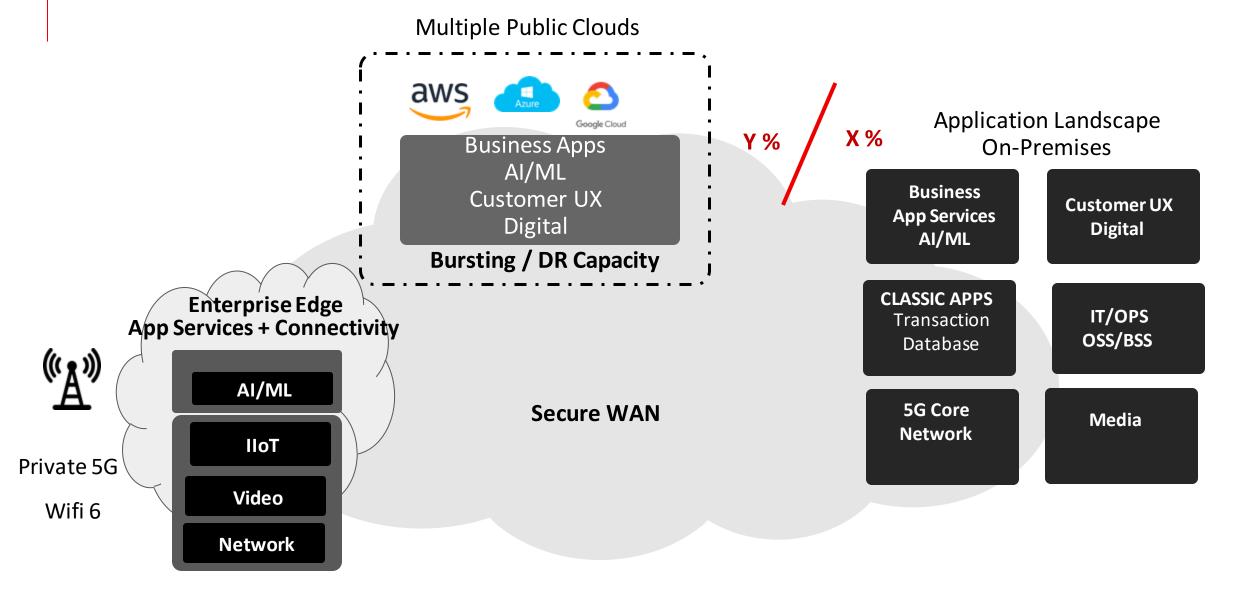
Speed airport traveler experience

Etisalat in UAE partners with Lenovo

https://developingtelecoms.com/telecom-technology/wireless-networks/13721-etisalat-uae-and-lenovo-plan-to-roll-out-a-5



Transforming Applications/Services – Driving Innovation and Business Efficiency





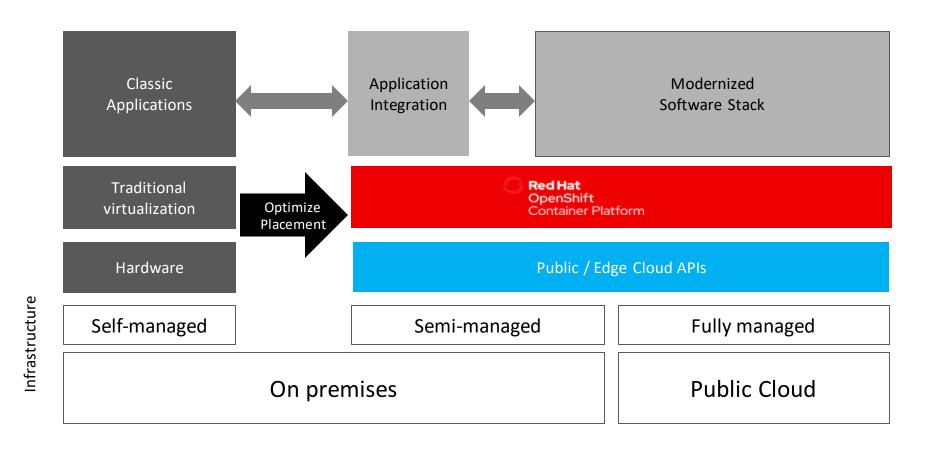
Practical approaches to partially modernize applications / move to the cloud

Challenge

Sprawling environment Duplication across teams

Approach

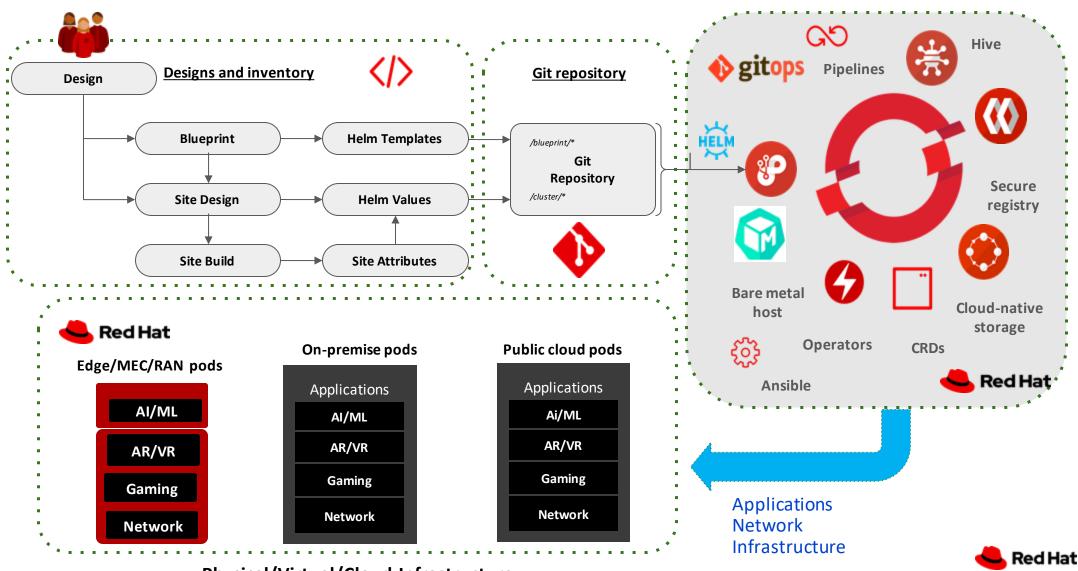
- Pragmatic rebuild
- Cloud native approach
- Align DevSecOps
- Use managed services
- Adopt balanced hybrid cloud
- On premises / public cloud



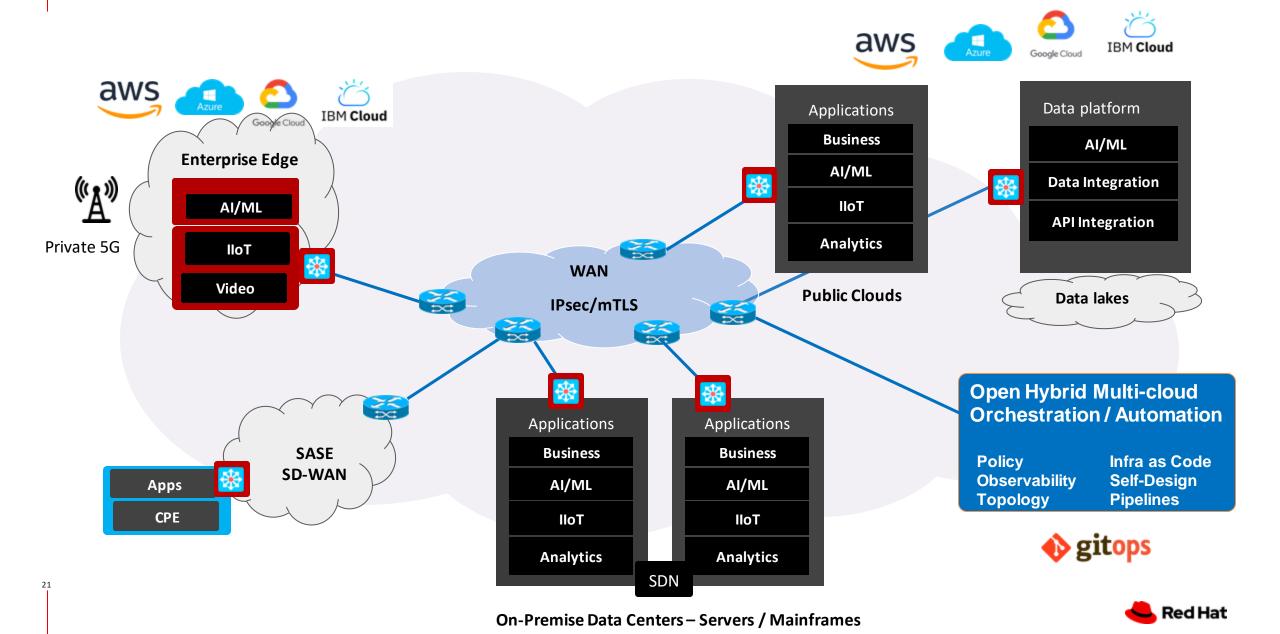


Hyperautomation – enabling autonomous services

Management / Orchestration



Enabling Business Value - Applications Edge Clouds



Thank you

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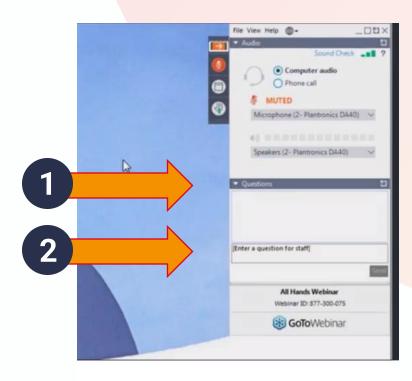
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Panel discussion and Q&A

Q&A session

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Our panel discussion

Moderator



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Principal Consultant &
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Panellists



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Thank you to everyone for joining

We hope you enjoyed the session!

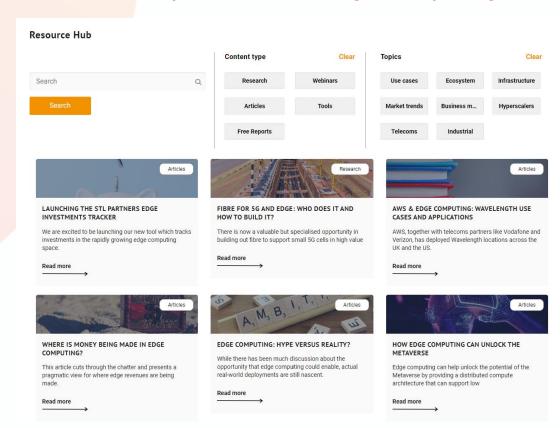
If you have any further questions, please email:

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- lan Hood, ihood@redhat.com



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