

# How telcos can leverage hyperscalers for private networks and edge

STL Partners webinar

Wednesday 19<sup>th</sup> April

In partnership with:



# Agenda

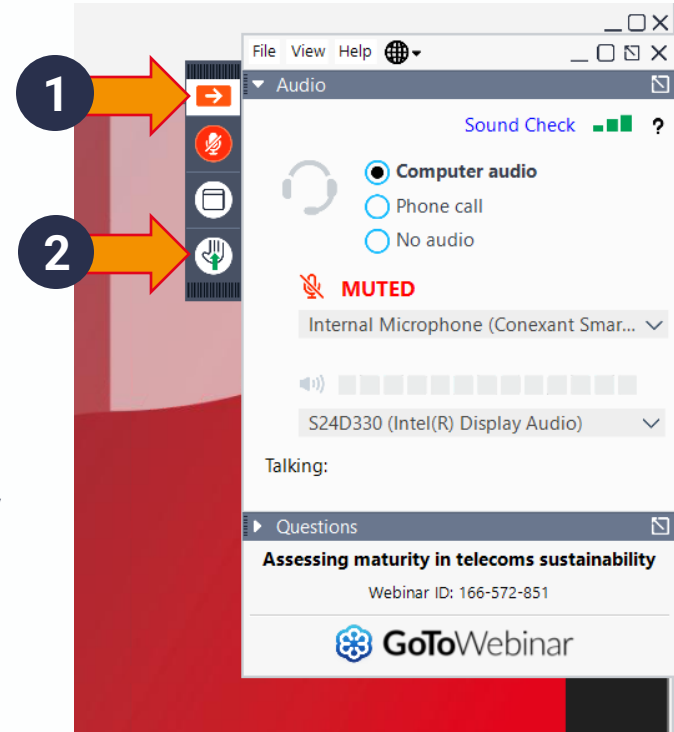
<b>1</b>	<b>Introductions and housekeeping</b>	STL Partners	16:00 – 16:05
<b>2</b>	<b>Telco-hyperscaler partnerships for Private 5G edge</b>	STL Partners	16:05 – 16:15
<b>3</b>	<b>Can telcos leverage hyperscalers for private networks and edge</b>	Red Hat	16:15 – 16:25
<b>4</b>	<b>Panel discussion</b>	Industry experts	16:25 – 17:00

# Agenda

<b>1</b>	<b>Introductions and housekeeping</b>	STL Partners	16:00 – 16:05
<b>2</b>	<b>Telco-hyperscaler partnerships for Private 5G edge</b>	STL Partners	16:05 – 16:15
<b>3</b>	<b>Can telcos leverage hyperscalers for private networks and edge</b>	Red Hat	16:15 – 16:25
<b>4</b>	<b>Panel discussion</b>	Industry experts	16:25 – 17:00

# GoToWebinar

- You're in listen only mode
- If you need us, please type a comment
- Feel free to type questions throughout the session for the Q&A at the end
  - Any questions that we don't answer live will be answered offline and shared in a summary Q&A document
- We'll send you the slides and a recording shortly after the session, please do share with colleagues



# Our speakers today



**DUNCAN CURRY**

Global Director,  
Strategic Alliances  
Hyperscalers

**Red Hat**



**JAKE HUGHES**

Business Development  
Lead, Cloud Service  
Providers

**Verizon**



**ZARN KUCEL**

Head, AWS Hybrid Edge,  
Telco & CSPs

**AWS**



**DEEPANKAR  
MUKHERJEE**

Senior Product Specialist  
– Edge Compute

**Telstra**



**DARIUS SINGH**

Director & Private  
Networks Lead

**STL Partners**

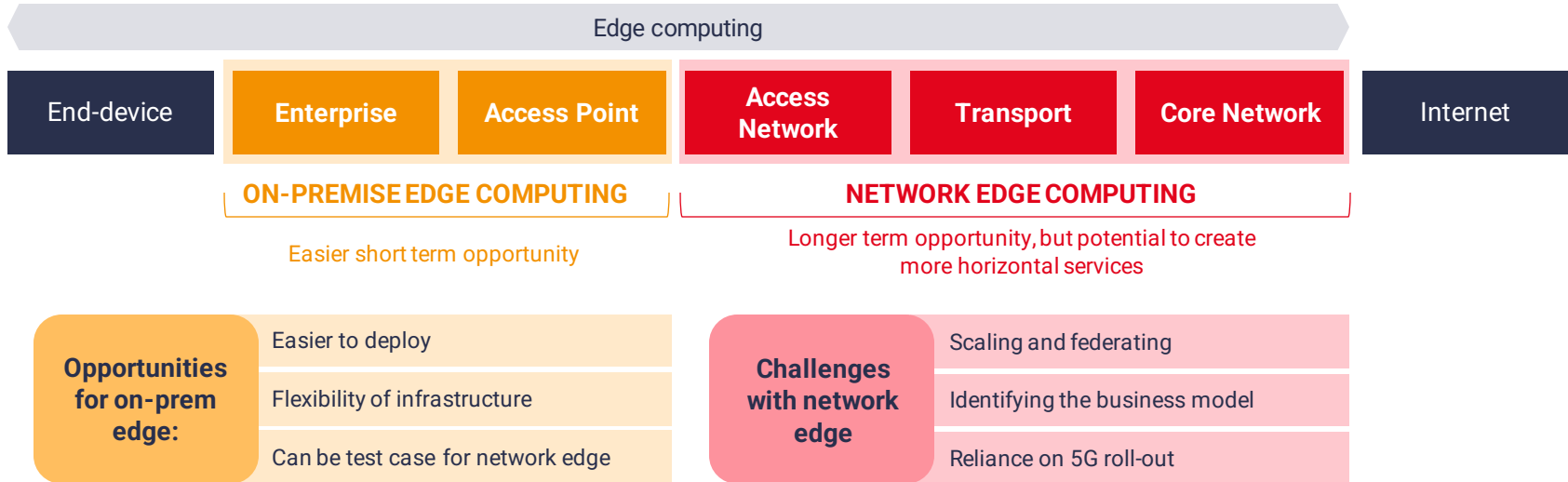


**CHRIS  
BARRACLOUGH**

CEO

**STL Partners**

# In our previous webinar we covered network edge, but the on-premise opportunity is shorter term and gaining traction



“ We feel the customer edge will come before the network edge at scale... the customer edge is more concrete in the short term.

CTO Business Services

“ On-premise edge is a way for telcos to get their foot in the door.

Strategy Manager

“ For network edge the idea is to neutralise services at a level that can have interest for more than one customer.

CTO Business Services

“ We are almost sure the core booster for network edge will be 5G.

CTO Business Services

# Agenda

<b>1</b>	<b>Introductions and housekeeping</b>	STL Partners	16:00 – 16:05
<b>2</b>	<b>Telco-hyperscaler partnerships for Private 5G edge</b>	STL Partners	16:05 – 16:15
<b>3</b>	<b>Can telcos leverage hyperscalers for private networks and edge</b>	Red Hat	16:15 – 16:25
<b>4</b>	<b>Panel discussion</b>	Industry experts	16:25 – 17:00

# STL has built a centre of excellence around private networks and slicing, advising businesses on this for over 4 years

Unrivalled expertise and experience...

...and an industry-leading knowledge centre

Supported >10 blue chip clients to develop their commercial strategy for private networks and slicing

*"STL Partners very quickly understood our brief and the scope, delivered in a timely manner and with excellent quality. We're very confident STL's work will help our client's sales teams improve their customer interactions"*

Europe sales lead, private networks – Global NEP

*"I can rely on STL Partners whenever I need unique and compelling points of view on the current state of the industry, technology, and more importantly about the business aspects."*

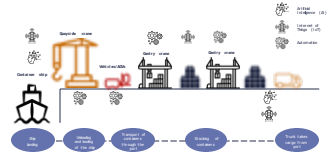
Director of Portfolio Marketing – Global technology firm

Supported players across the telecoms ecosystem, including tier-1 operators, NEPs, OEMs, Global SIs, Hyperscalers

Interviews with over 100 enterprises and solution providers across different industries

Team of experts: leading industry analysts and consultants, private network and slicing SMEs

ID	Date of release	Year	Country	Region	Lead partner (Deployment)
91	May-20	2020	France	Europe & Central Asia	
114	Oct-20	2020	United States	North America	Druid Software
130	Jan-21	2021	United States	North America	TTC Solutions/Comcast
1	Dec-13	2013	Italy	Europe & Central Asia	Altomare
3	Dec-14	2014	Italy	Europe & Central Asia	Altomare
45	Oct-19	2019	Italy	Europe & Central Asia	Altomare
115	Oct-20	2020	United States	North America	Broad Area Networks
183	Oct-21	2021	United States	North America	Favia
210	Nov-22	2022	United States	North America	Ferretel
225	Aug-22	2022	France, Reg.	Europe & Central Asia	AT&T
236	Aug-22	2022	France, Reg.	Europe & Central Asia	Samung
106	Aug-20	2020	Netherlands	Europe & Central Asia	Druid Software
197	Aug-20	2020	Norway	Europe & Central Asia	Druid Software
227	Aug-22	2022	Korea, Reg.	East Asia & Pacific	Samung
133	Nov-20	2020	Taiwan (Rep. China)	East Asia & Pacific	ChinaTels Telecom



Global insights tool, including 280+ deployments and use cases for private networks and slicing across regions

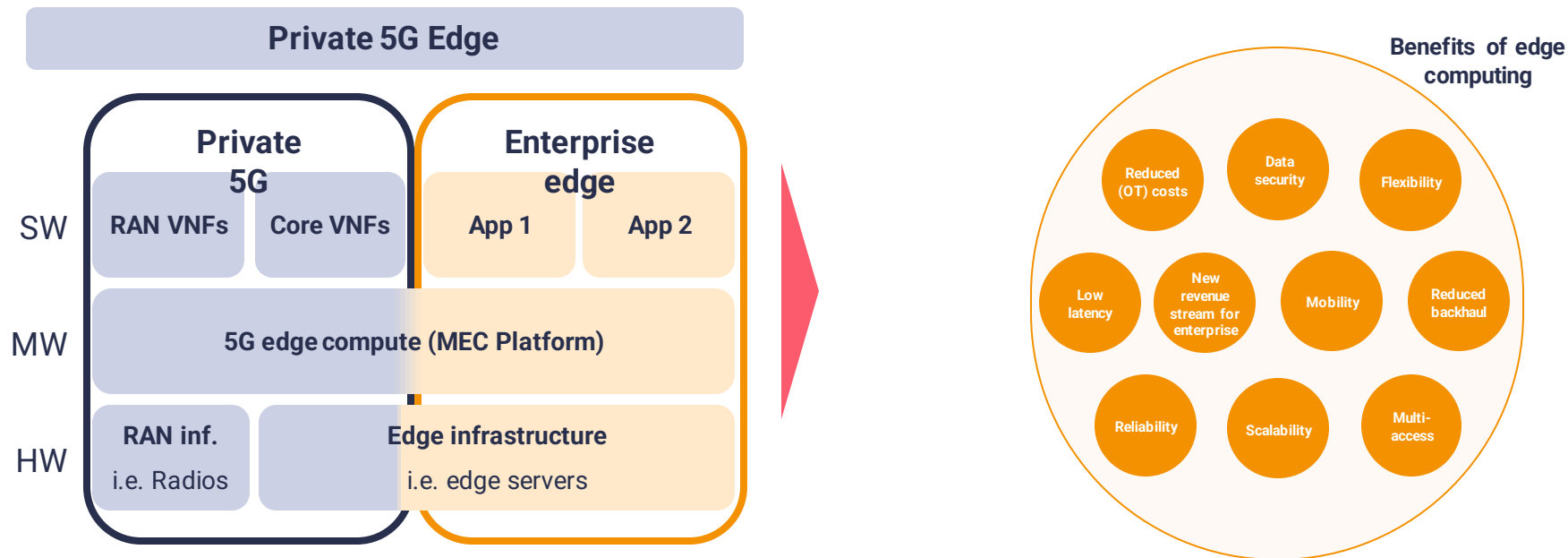
Interactive tool for modelling the cost and ROI of private network deployments

Extensive catalogue of reports on topics within private networks and slicing

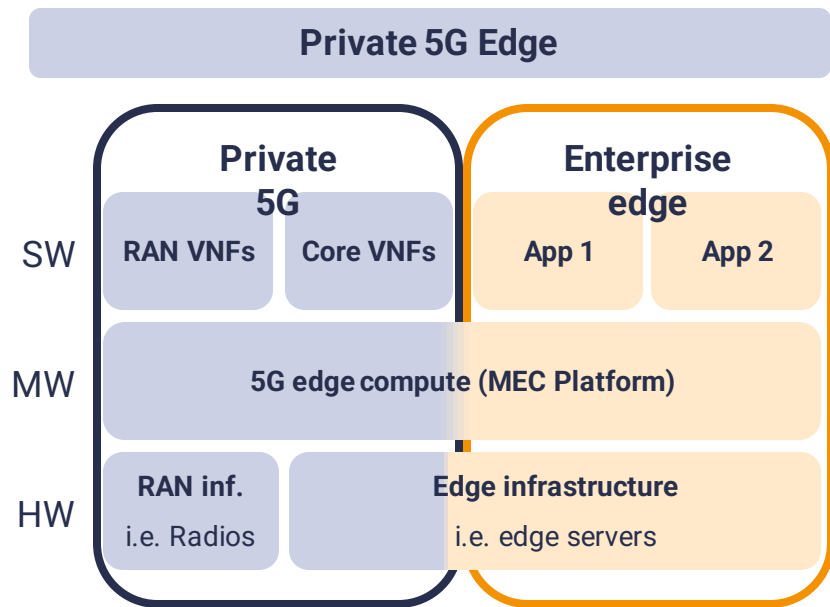
Vertical specific playbooks, exploring case studies, use cases and the business case for private networks



# On-premise edge computing goes hand-in-hand with private networks as part of the Private 5G edge

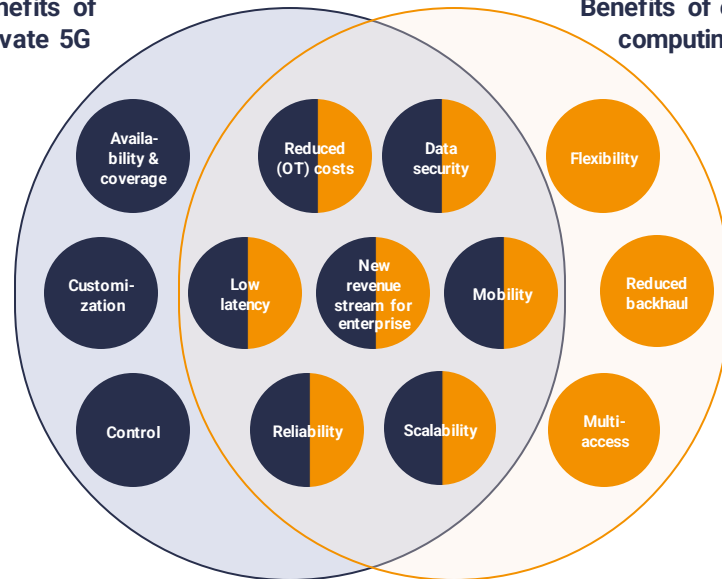


# On-premise edge computing goes hand-in-hand with private networks as part of the Private 5G edge



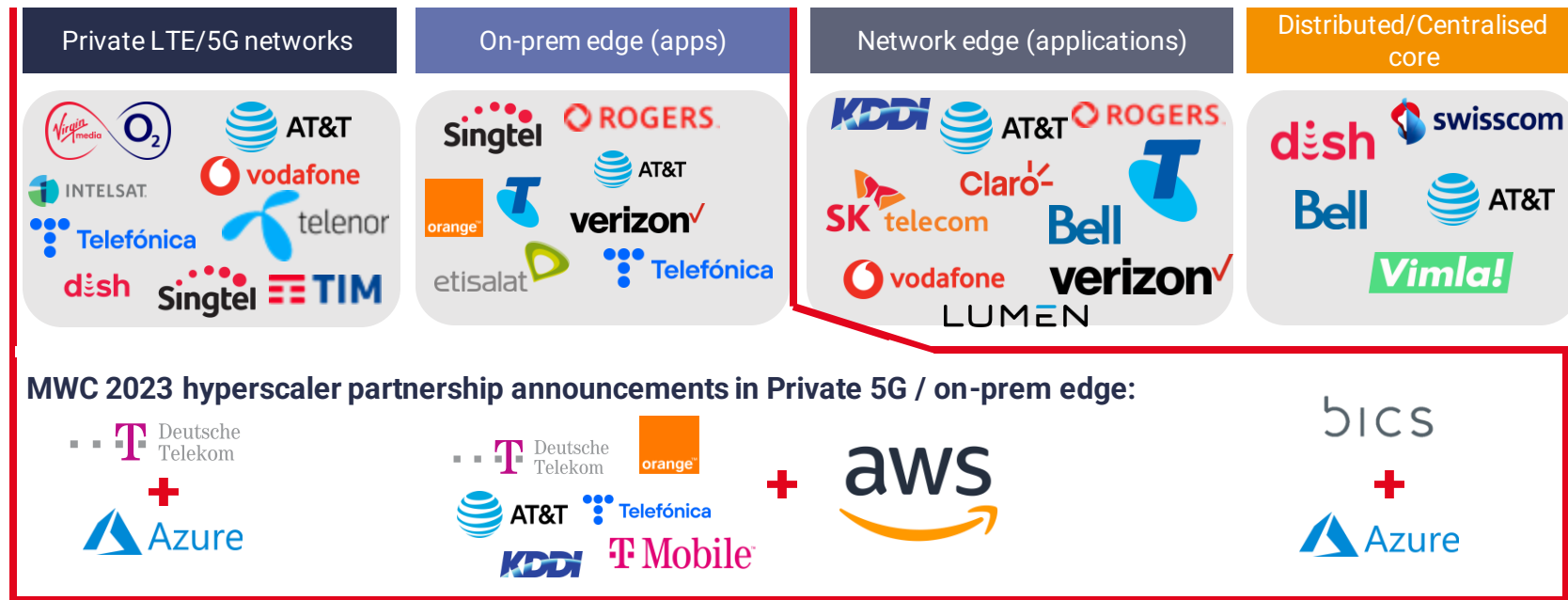
Benefits of private 5G

Benefits of edge computing



# Operators are engaging with hyperscalers across edge domains, with private 5G edge getting attention at MWC


Edge domains (for telco-hyperscaler partnerships) *\*non-exhaustive list*



# Some operators are choosing to partner with multiple hyperscalers in different domains (e.g. Telefónica)

Partners		Azure + Telefónica (Tech)	AWS + Telefónica (Germany)	
Edge Domain		On-prem edge	Network edge	On-prem edge
Application & platforms	Application	NF vendors (incl. Metaswitch, Affirmed)	Ericsson	Application developers /enterprises
	Application platform / PaaS	Azure	Ericsson	AWS
Edge cloud infrastructure	Orchestration	Azure	AWS	AWS
	Containers / hypervisors	Azure	AWS	AWS
Hardware		Azure	AWS	AWS
Facility		Enterprise	Telefónica (Germany)	Enterprise

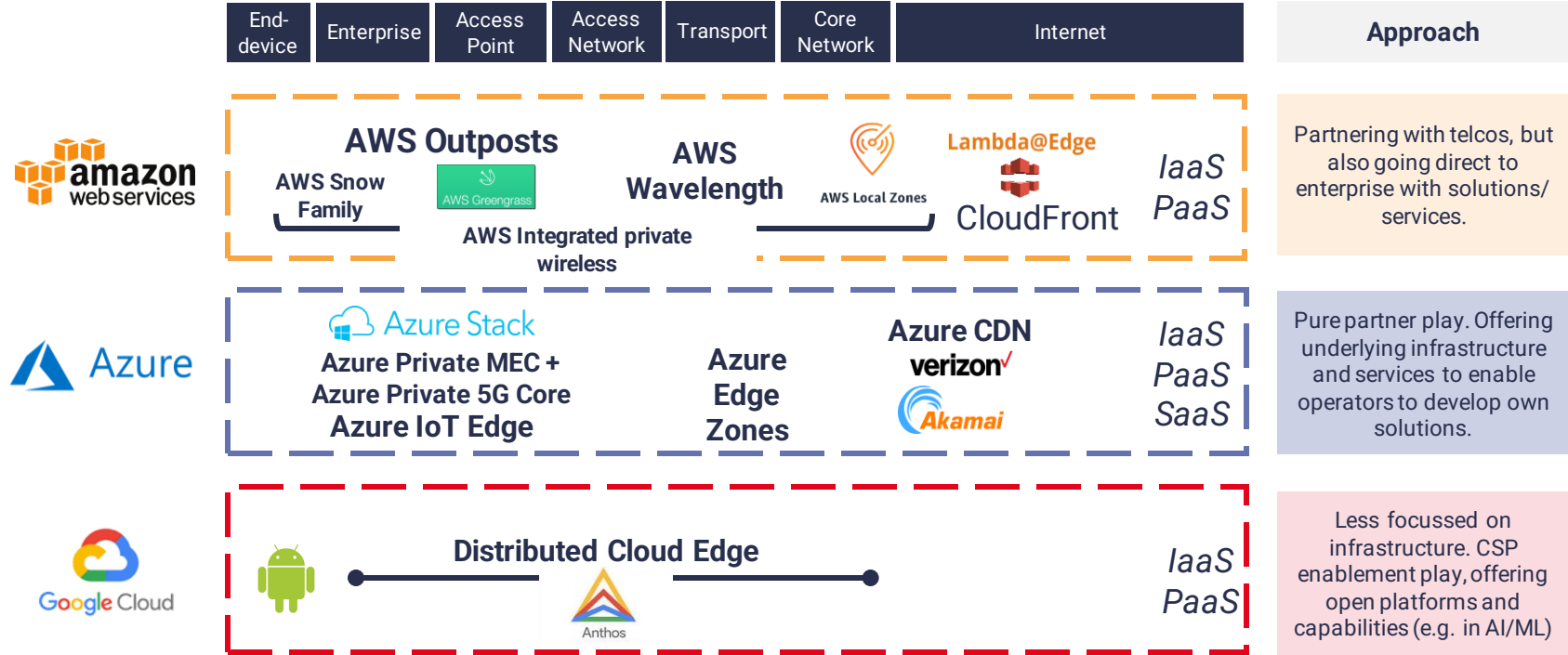
Key

 Hyperscaler manages

 CSP manages

 3<sup>rd</sup> party manages

# AWS, Azure and Google are taking different approaches to the private 5G and edge opportunity



# Telcos should consider leveraging HCP partnerships to succeed in capturing the on-premise opportunity

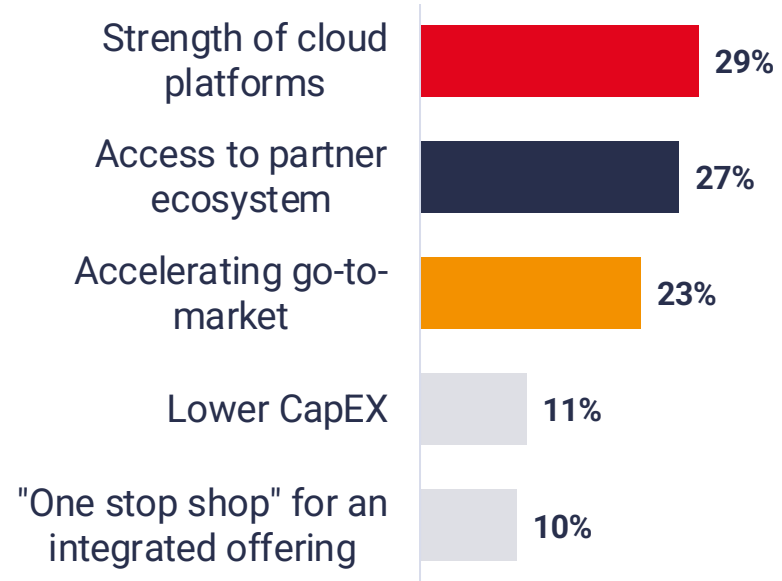
Telcos increasingly see hyperscaler partnerships as inevitable across network, edge and IT, due to the multitude of benefits the partnerships can offer.

One significant benefit is the hyperscalers' skills in capturing the longer tail of smaller businesses, which is key for operators in scaling the edge and private networks opportunity.

Working with the hyperscalers for private networks and edge offers operators a 'test case' that could lead to greater collaboration within telco networks.

It is not only operators that benefit from these partnerships—the hyperscalers need operators too as they don't have their own RAN businesses and aren't licensed spectrum holders.

Q: What are the benefits of using hyperscaler infrastructure and platforms for edge computing?



Source: STL Partners [Network edge computing capacity model](#), STL Partners survey 2022, n=180

# Agenda

<b>1</b>	<b>Introductions and housekeeping</b>	STL Partners	16:00 – 16:05
<b>2</b>	<b>Telco-hyperscaler partnerships for Private 5G edge</b>	STL Partners	16:05 – 16:15
<b>3</b>	<b>Can telcos leverage hyperscalers for private networks and edge</b>	Red Hat	16:15 – 16:25
<b>4</b>	<b>Panel discussion</b>	Industry experts	16:25 – 17:00



# Can Telcos leverage Hyperscalers for Private Networks and Edge

Duncan Curry  
Global Director Hyperscalers, TME



# So what is happening...

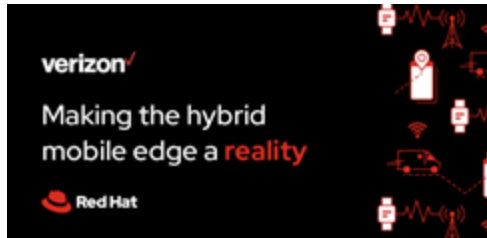


Press Release

**Telefónica Tech launches 'Telefónica Red Hat OpenShift Service' with Red Hat and IBM to drive customers' transformation to the cloud**



**BT Group expands partnership with AWS: new deal targets \$500m opportunity in connectivity and digital services**

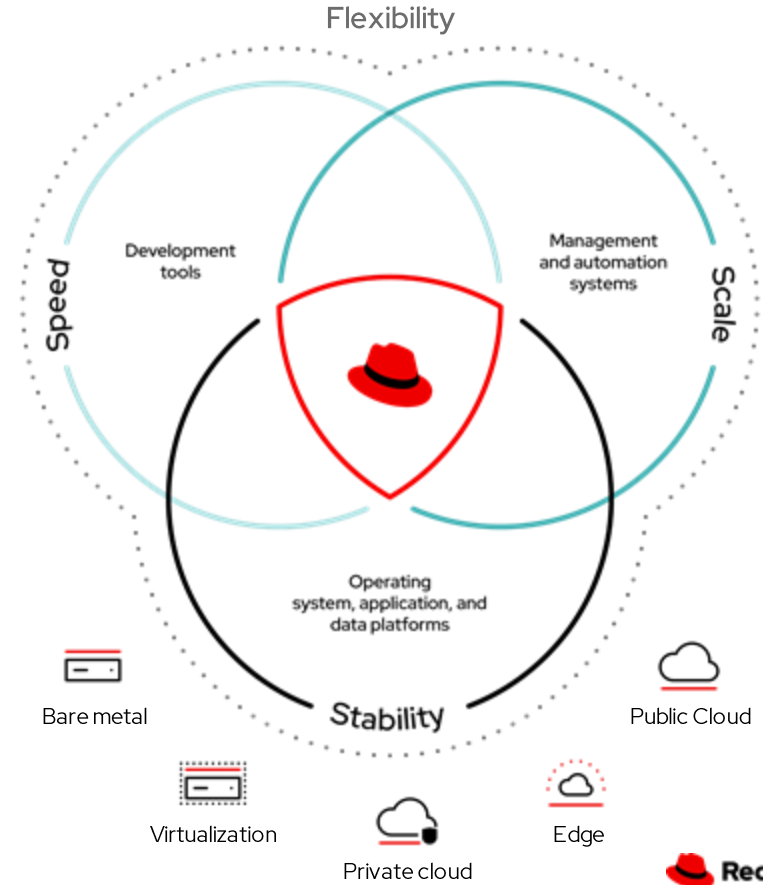


- In 2022 TEF saw **57% year-on-year increase in revenue for its digital business** – cybersecurity, IoT and big data, and cloud services x-platform built on the Red Hat platform
- BT will use the hyperscaler's services to come up with **new IoT and 5G edge computing solutions** (connected device offerings in areas such as healthcare, ports, manufacturing, transport and logistics – single source of managed solutions (enhanced managed security and third-party SaaS offerings).
- Verizon & Red Hat deliver a hybrid mobile edge computing (MEC) **solution** using Verizon 5G Edge and Red Hat OpenShift – a novel approach to **converge both public 5G networks** with **AWS** Wavelength and private 5G networks with AWS Outposts under a **single compute mesh using Kubernetes..**

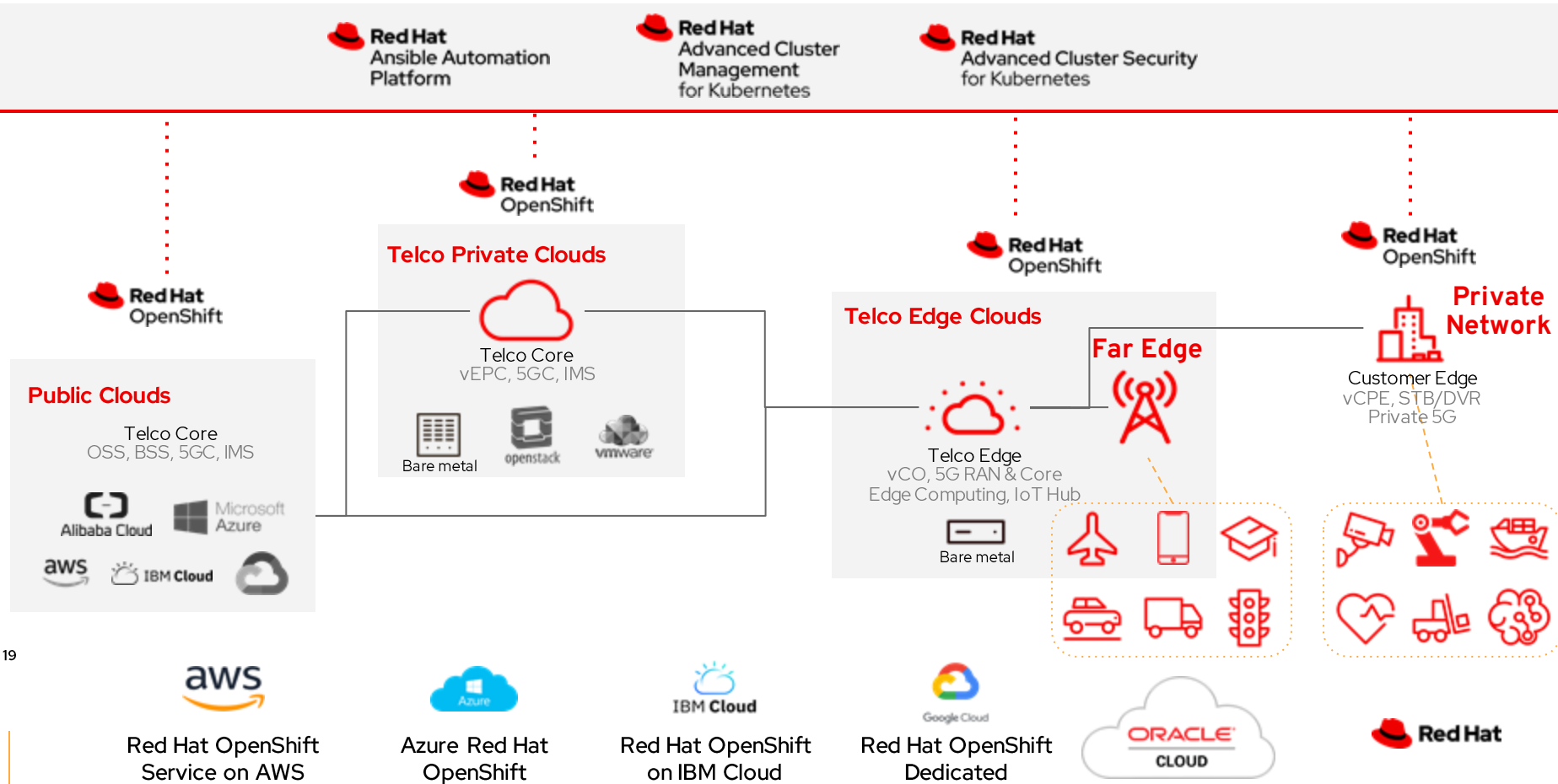
# Red Hat Open Hybrid Cloud Strategy

Open hybrid cloud is Red Hat's® recommended strategy for **transforming applications, infrastructure, and processes in order to deliver** a *flexible* and *security-focused* hybrid cloud experience with the stability, speed, and scale required for digital business transformation.

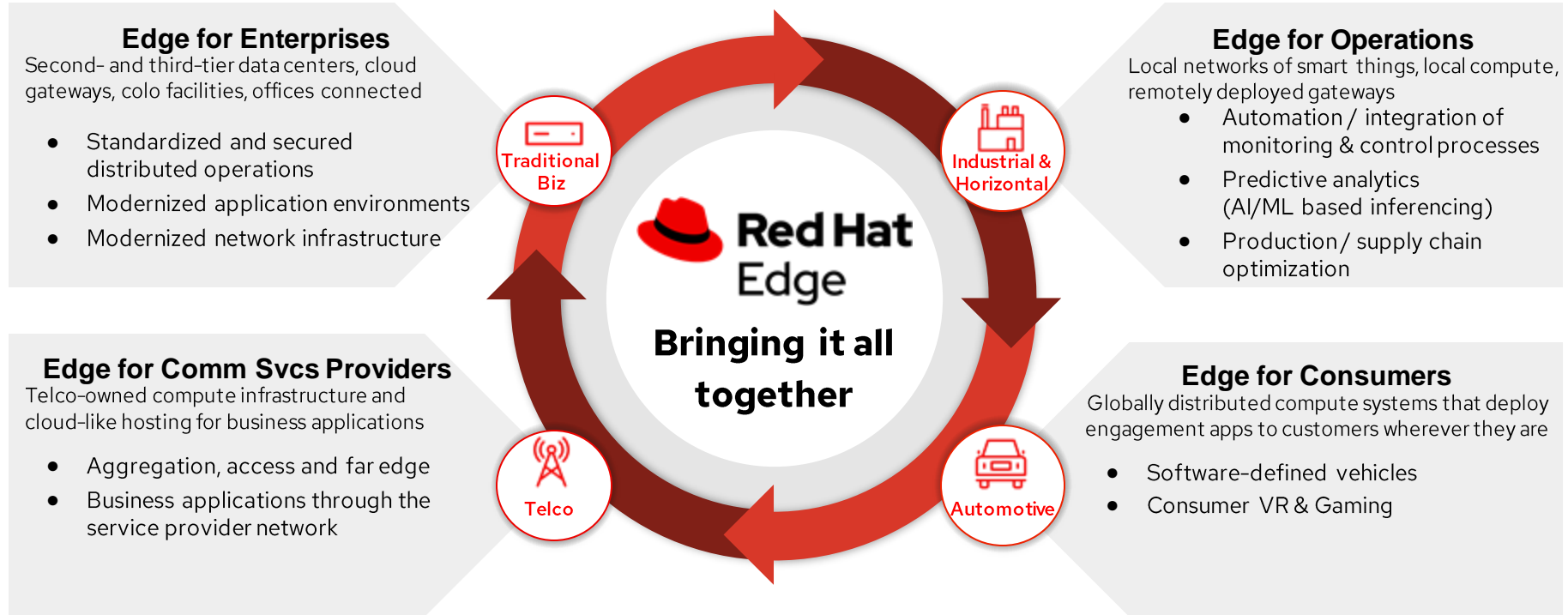
**It helps customers deliver innovation faster in a hybrid world.**



# Enabling a uniform Telco Core - Far EDGE horizontal Cloud



# Market Segmentation | How we think about 'Edge'



# Open Hybrid Cloud: Open Partner Ecosystem

## Hyperscalers

- Joint OpenShift solutions integrated with hyperscaler services
- Red Hat solutions available on consoles and marketplaces
- Strategic partnerships w/joint GTM

## Hyperscaler Ecosystems

- GTM support from Red Hat and hyperscalers
- Expand their cloud native solution portfolio
- Offer Open Hybrid Cloud with multiple hyperscalers
- Increase cloud services and higher margin consulting services sales

## GSI/RSIs

- 3-way engagement: Red Hat, hyperscaler and GSI/RSI
- Infrastructure solutions for traditional (RHEL) and cloud native (OpenShift) apps for digital transformation initiatives
- Enhance transformation offerings with automation (Ansible)

## Cloud Providers/MSPs

- Meet local/regional/industry privacy and compliance requirements
- Offer managed services based on Red Hat technology
- Improve service delivery, compliance and security with Ansible

## Distributors

- Programs for resellers to scale business
- Support backend operational transactions for multi-cloud engagements
- Joint sales and marketing

## Resellers

- Transform business model to selling cloud services
- Resell Red Hat technologies through cloud marketplaces
- Joint sales and marketing

# Edge Industry Pursuits / Use Cases



## Telco

- Radio-Access Networks (5G)
- Video Analytics Retail
- Intelligent/Smart Content Delivery Networks
- Connectivity for Intelligent Devices
- Cloud Gaming
- Private Wireless Networks



## Industrial

- Smart Digital Production: Containers (Dig Twin, Predictive Maintenance, SW defined PLC...)
- Smart Digital Production: Automation
- Energy: Substation Modernization
- 5G in Manufacturing and Energy (Telco Synergy)



## Automotive / Transportation Software Defined Vehicle

- Development: Virtual Testing, Digital Twin, SDV CI/CD
- Runtime: Connected Vehicle Edge, Automotive Cloud, OTA
- 5G, MEC and V2X in Automotive (Telco Synergy)
- Big Loop for SDV - Synergies Vehicle Onboard and Offboard



## Healthcare

- Software Defined Medical Devices
- Management and Security of Distributed Devices
- Pharma Manufacturing and Supply Chain Automation



## Retail

- Point of Sales System
- Video Analytics Retail
- Pharma Manufacturing and Supply Chain Automation



## Financial Services

- Payments
- Trade Finance

# Thankyou

Red Hat  
**Summit**

May 23-25, 2023 | Boston, Massachusetts

## Craft your journey at Red Hat Summit

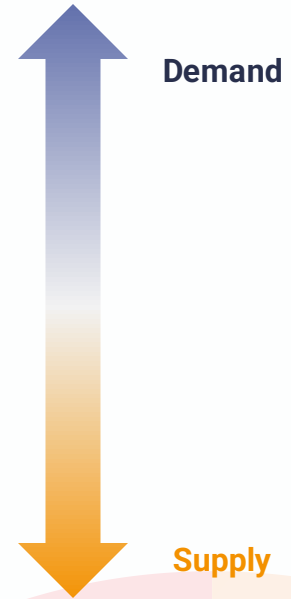
Build your own experience at the premier open source technology event, which features an accessible and inclusive format geared to IT leaders and professionals. With new sessions and tracks covering a variety of topics such as automation, hybrid cloud, and edge, this year's event is designed to give you the tools you need to help define the future of open technology—as well as the flexibility needed to choose the topics most relevant to your business challenges.

[Register today](#)



# **Poll:** What is the biggest hurdle facing telcos looking to capture the on-premise edge/private network opportunity?

1. Defining the use case demand and ROI in enterprise language
2. Cost of infrastructure and devices
3. Moving to an Opex/-aaS cost model
4. Managing the hyperscale partnerships
5. Lack of standards





# Agenda

<b>1</b>	<b>Introductions and housekeeping</b>	STL Partners	16:00 – 16:05
<b>2</b>	<b>Telco-hyperscaler partnerships for Private 5G edge</b>	STL Partners	16:05 – 16:15
<b>3</b>	<b>Can telcos leverage hyperscalers for private networks and edge</b>	Red Hat	16:15 – 16:25
<b>4</b>	<b>Panel discussion</b>	Industry experts	16:25 – 17:00

# Our panellists today



**DUNCAN CURRY**

Global Director,  
Strategic Alliances  
Hyperscalers

**Red Hat**



**JAKE HUGHES**

BD Lead, Cloud Service  
Providers

**Verizon**



**ZARN KUCEL**

Head, AWS Hybrid Edge,  
Telco & CSPs

**AWS**



**DEEPANKAR  
MUKHERJEE**

Senior Product Specialist  
– Edge Compute

**Telstra**



**DARIUS SINGH**

Director

**STL Partners**



**CHRIS  
BARRACLOUGH**

CEO

**STL Partners**