

\$100bn by 2030: How network automation will unlock NaaS revenues

STL Partners

28th January 2025

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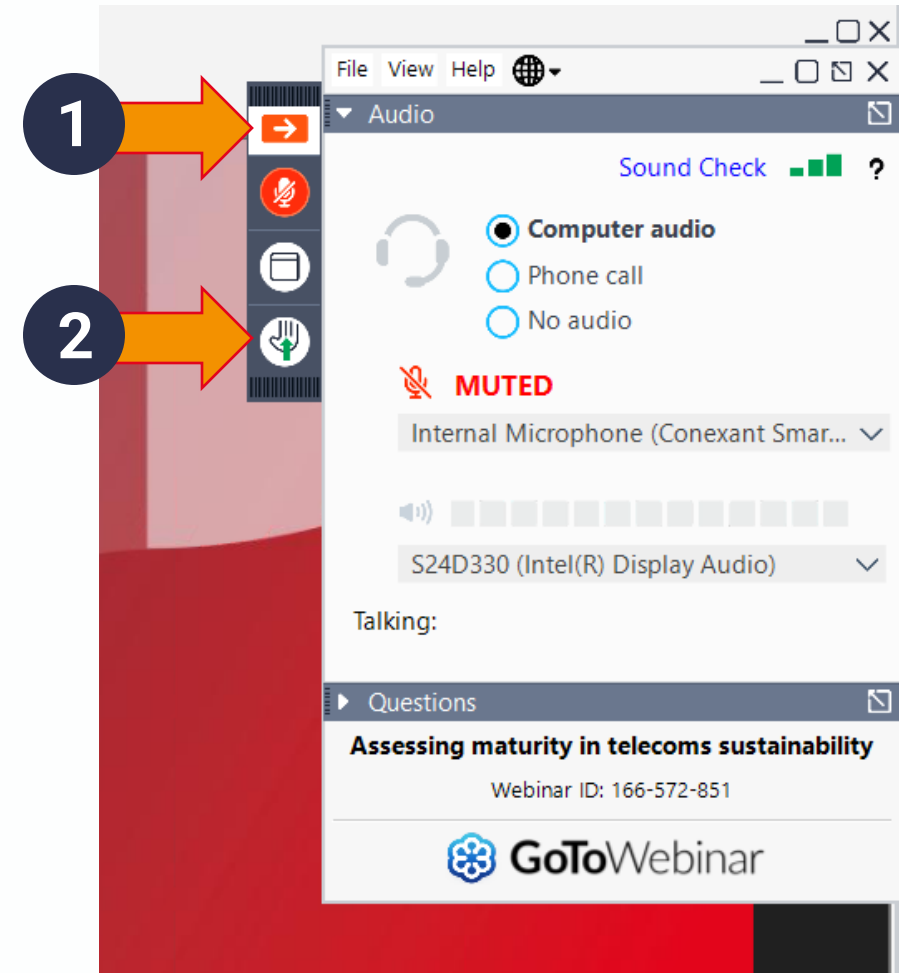


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| 2 | Simplifying NaaS for easier enterprise consumption: Capturing the \$100bn opportunity | Anna Boyle |
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| 3 | Network automation to unlock NaaS revenues | Hanen Garcia |
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Our speakers



Hanen Garcia

Global Telco Solutions
Manager

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Presenter



Chris Thornton

Edge and Private
Network Ecosystem

Red Hat

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Alexis Koalla

Director Operations
Strategy and
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Anna Boyle

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Co-Lead

STL Partners

Presenter



Tilly Gilbert

Director, & Edge &
Cloud Practice Co-
Lead

STL Partners

Panel moderator

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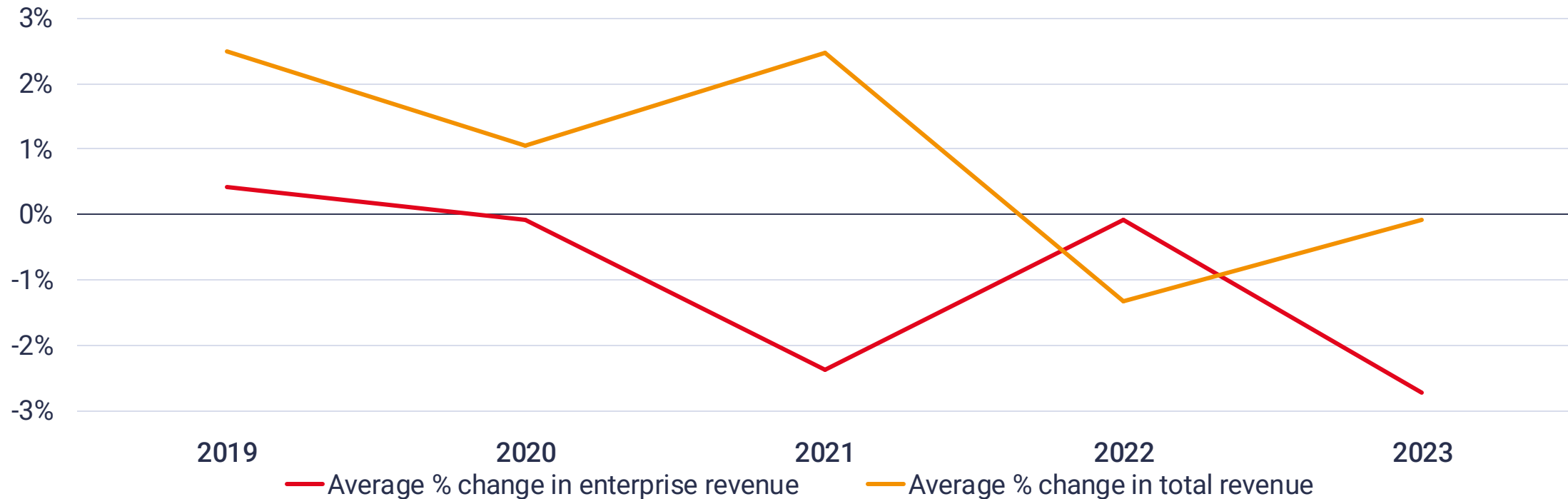
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Telco revenues in the enterprise segment are stagnating

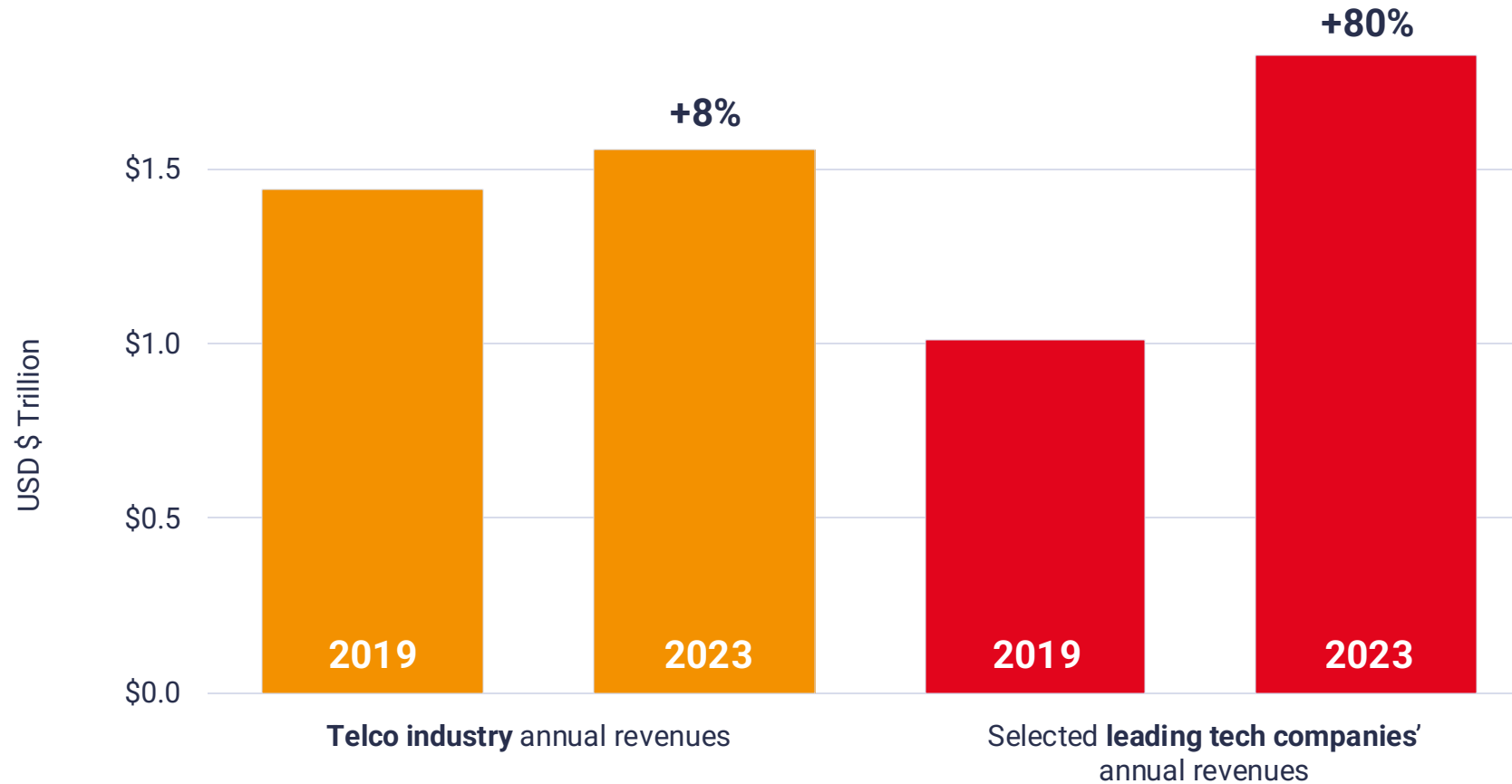
Average year-on-year % change in revenues of top 10 telecom operators by revenue between 2019 and 2023*



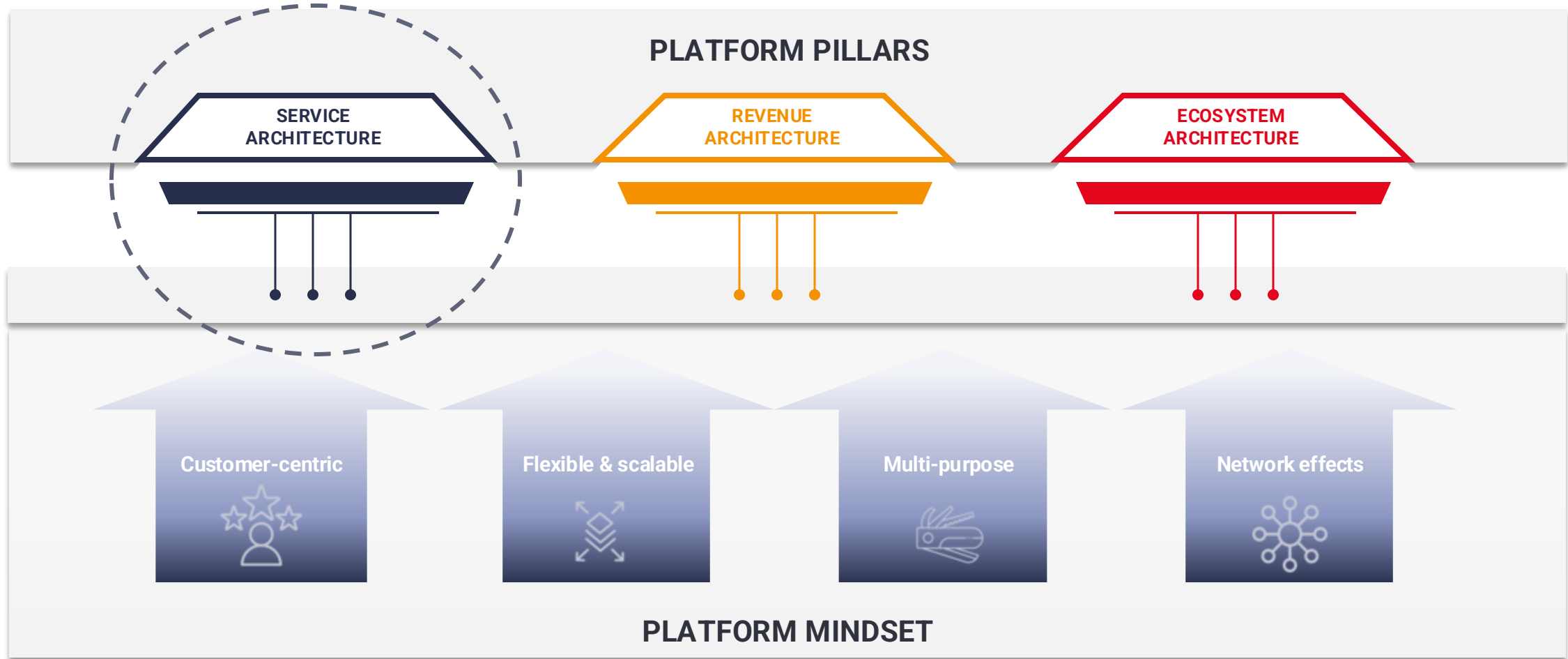
*Top 10 telcos by reported 2023 revenue that also report financial data for an enterprise/business/B2B segment or similar: Verizon, AT&T, Deutsche Telekom, Comcast, Charter, Vodafone, Orange, KDDI, BT and Lumen Technologies

Source: Company financial reports and STL Partners analysis

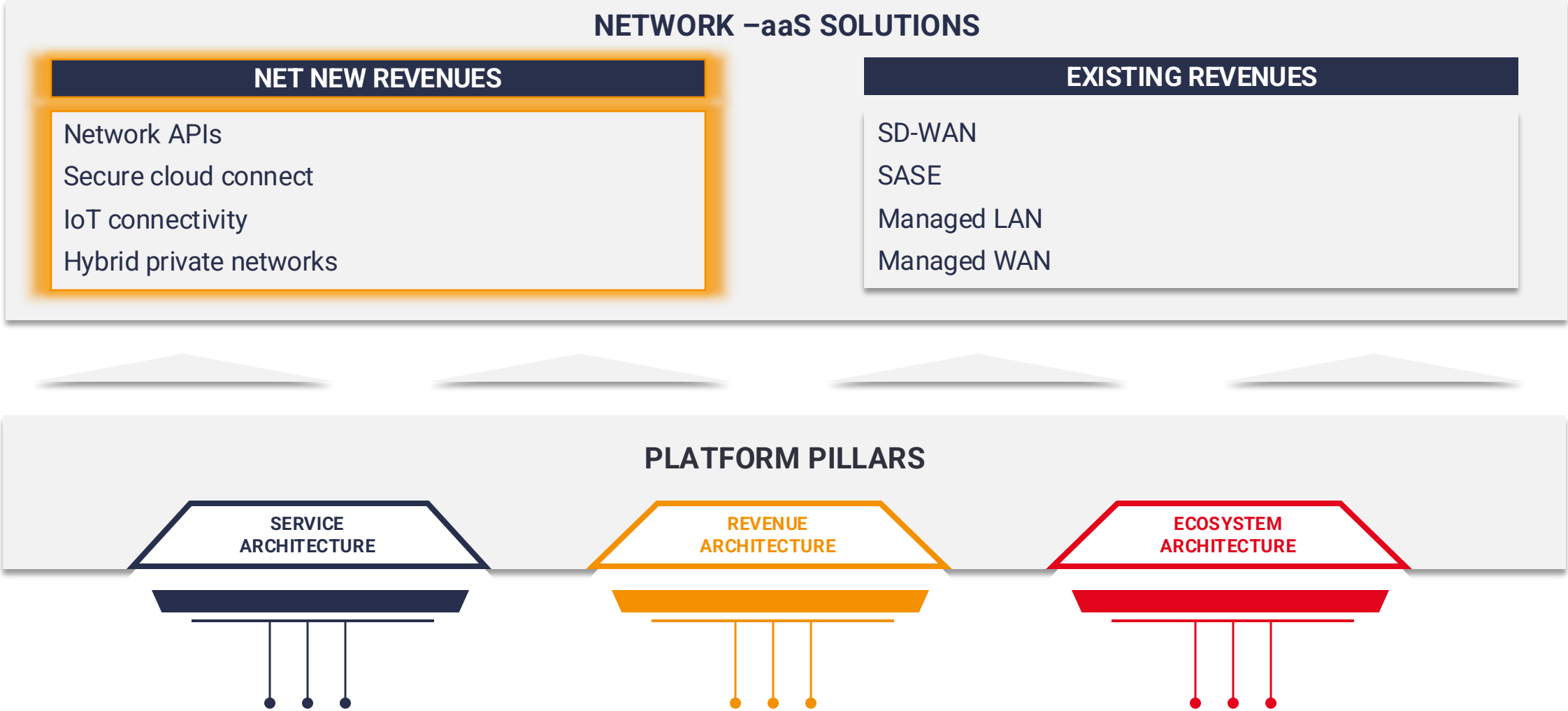
Technology players have grown and encroached on the telco patch



To reverse this trend, telcos have prioritised improving their technology offerings

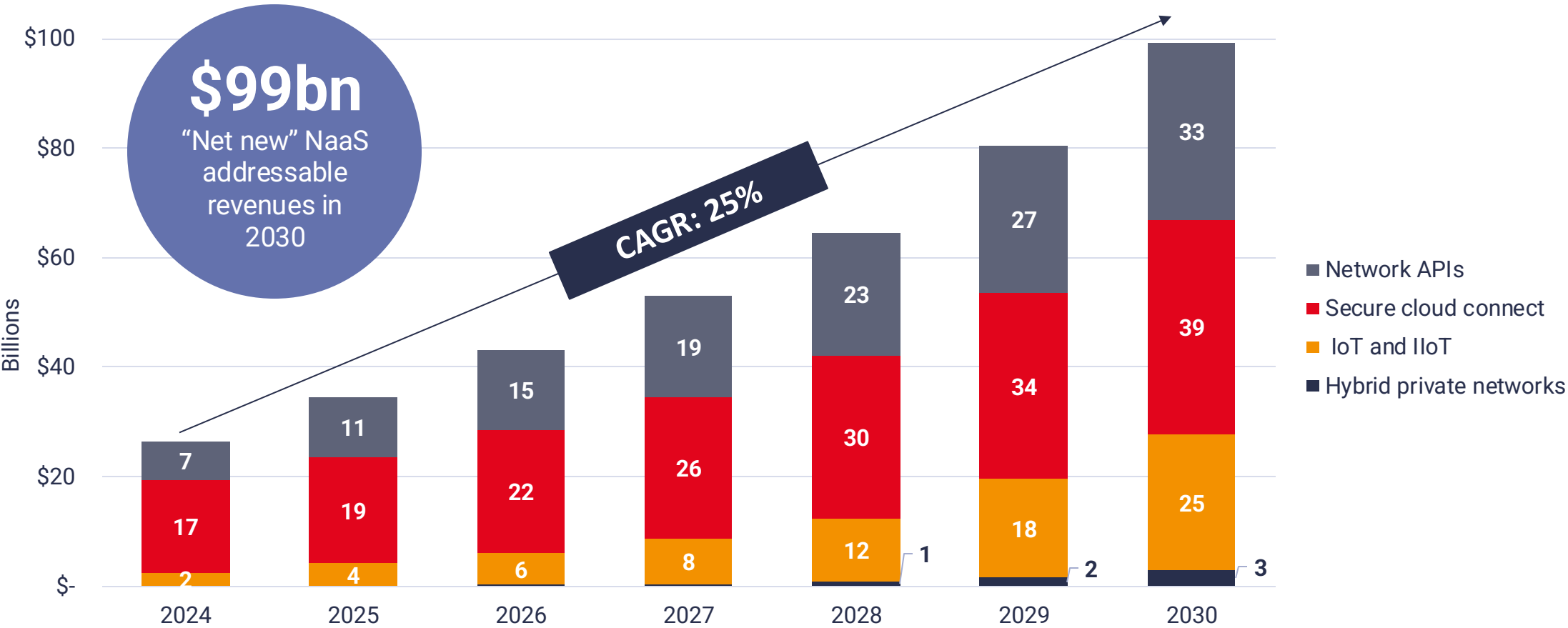


New service architectures make NaaS technologically possible, but monetisation requires all three platform pillars

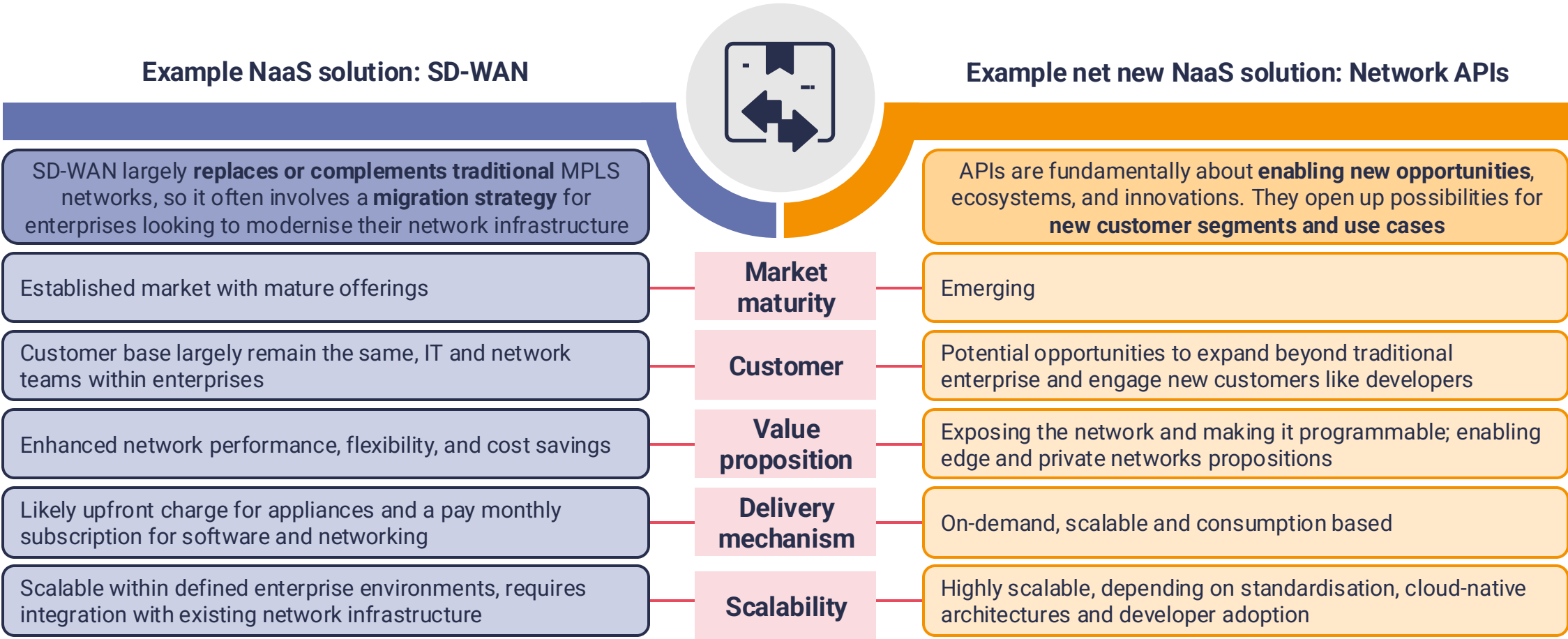


Embracing the platform mindset will be critical for telcos to capture NaaS revenues

Total addressable revenues for “net new” NaaS services



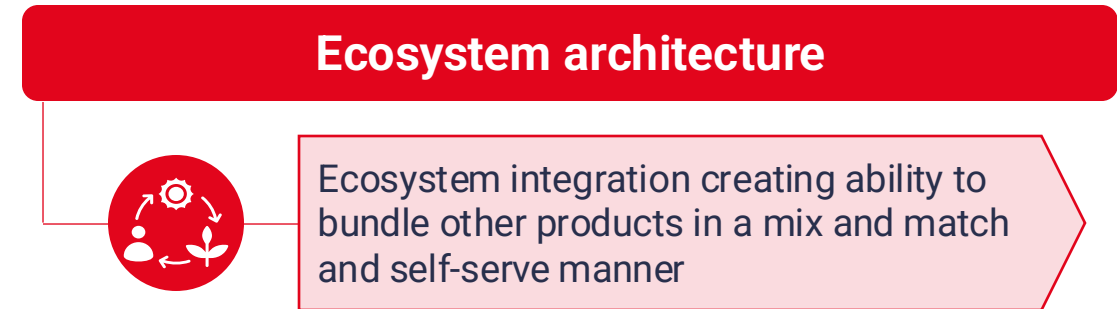
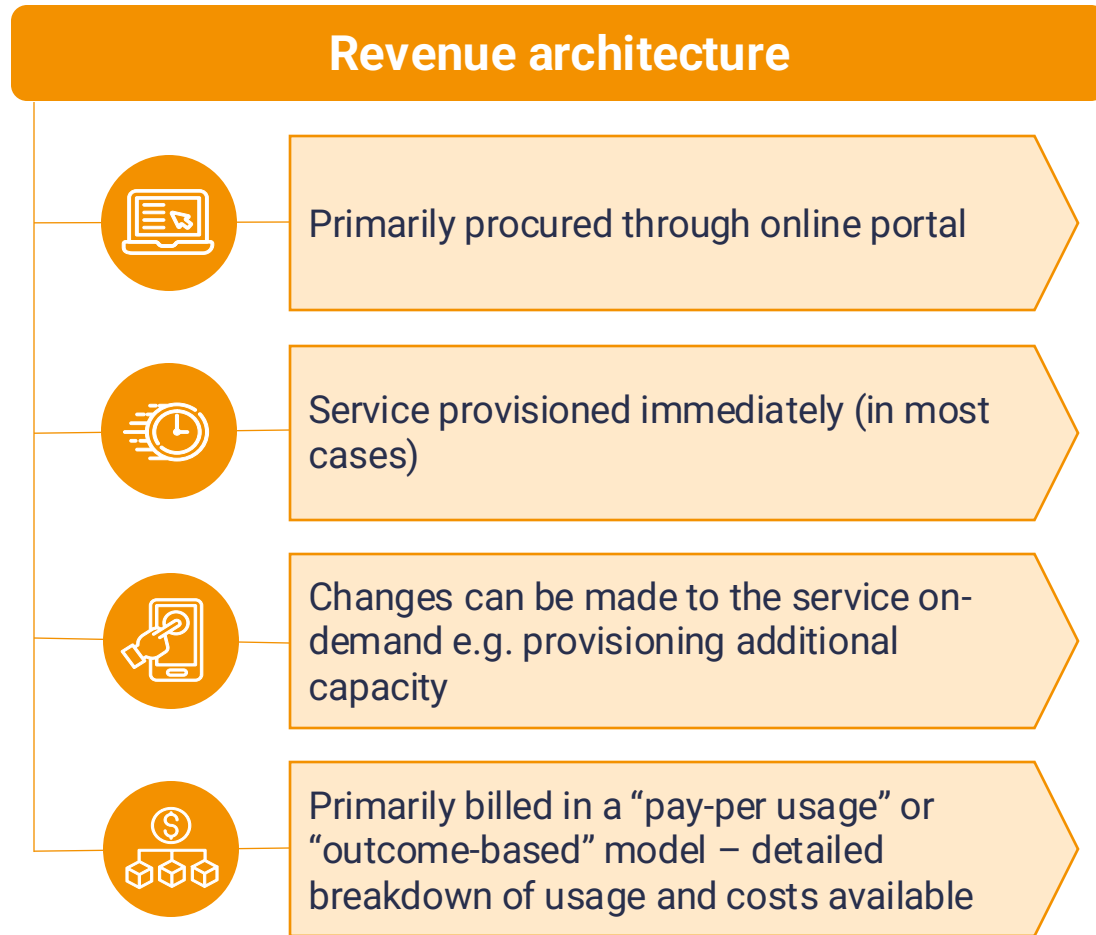
But not all NaaS offerings will unlock new revenue



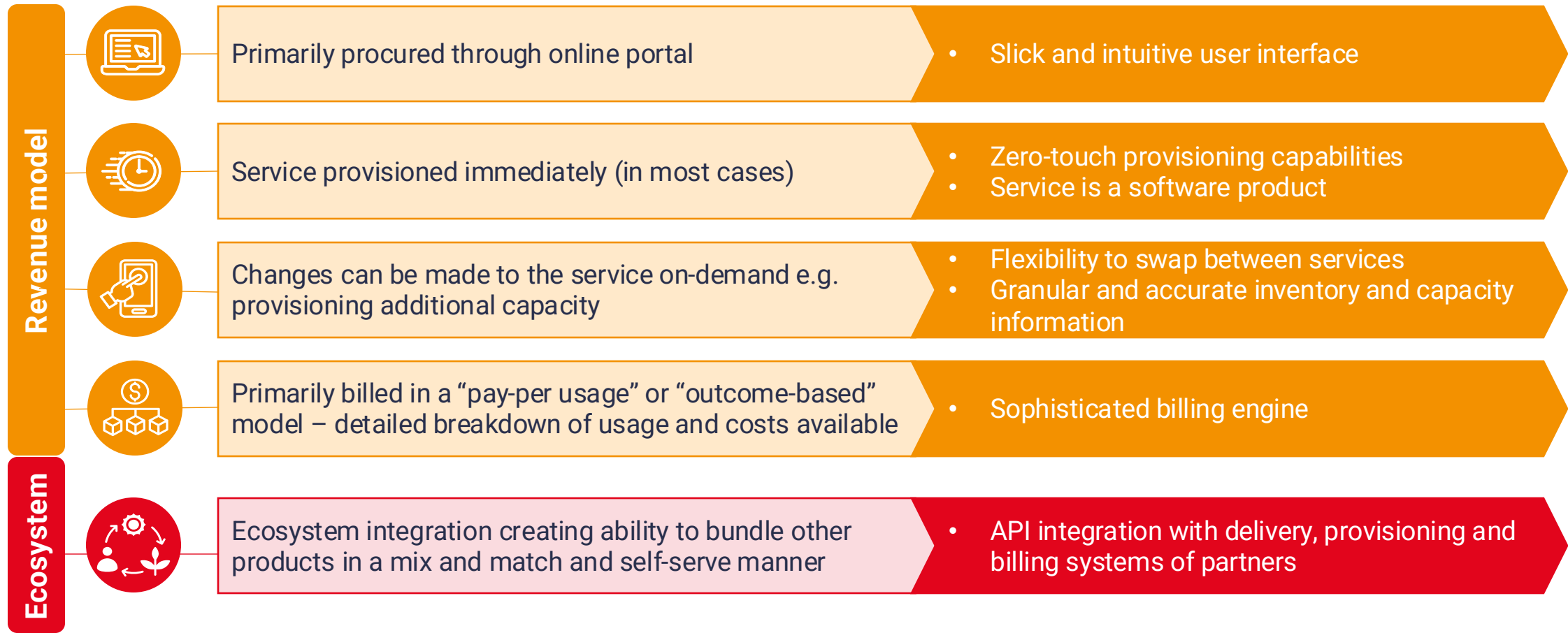
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The platform model has changed enterprise expectations of their service providers



Telcos must invest in new internal capabilities to unlock the NaaS revenue opportunity



Enterprise demand for NaaS should be the catalyst for telcos to embrace the platform mindset

We find that there is a gap in the market for connectivity solutions that are consistently performant and scalable across diverse site types and locations.

IT Director, Global Building Technology and Solutions Company

We often need to quickly set up and connect warehouses or plants to respond to market demands or geopolitical events. Following the outbreak of the war in Ukraine we had to relocate several production sites from Ukraine to Poland.

Head of Business Technology, Global Outdoor Clothing Manufacturer and Distributor

Cloud has changed what is valuable to an enterprise customer – they are looking for network operators who can connect them securely into all the major cloud providers. Cloud adoption is also changing network traffic patterns, with more data than ever flowing between enterprise sites and data centres.

CTIO, Challenger CSP

But there are risks and rewards for telcos trying to emulate the platform model

Transforming the operational model is a significant challenge, and many telcos are still building the business case for such a transformation – leaving them asking the following key question:

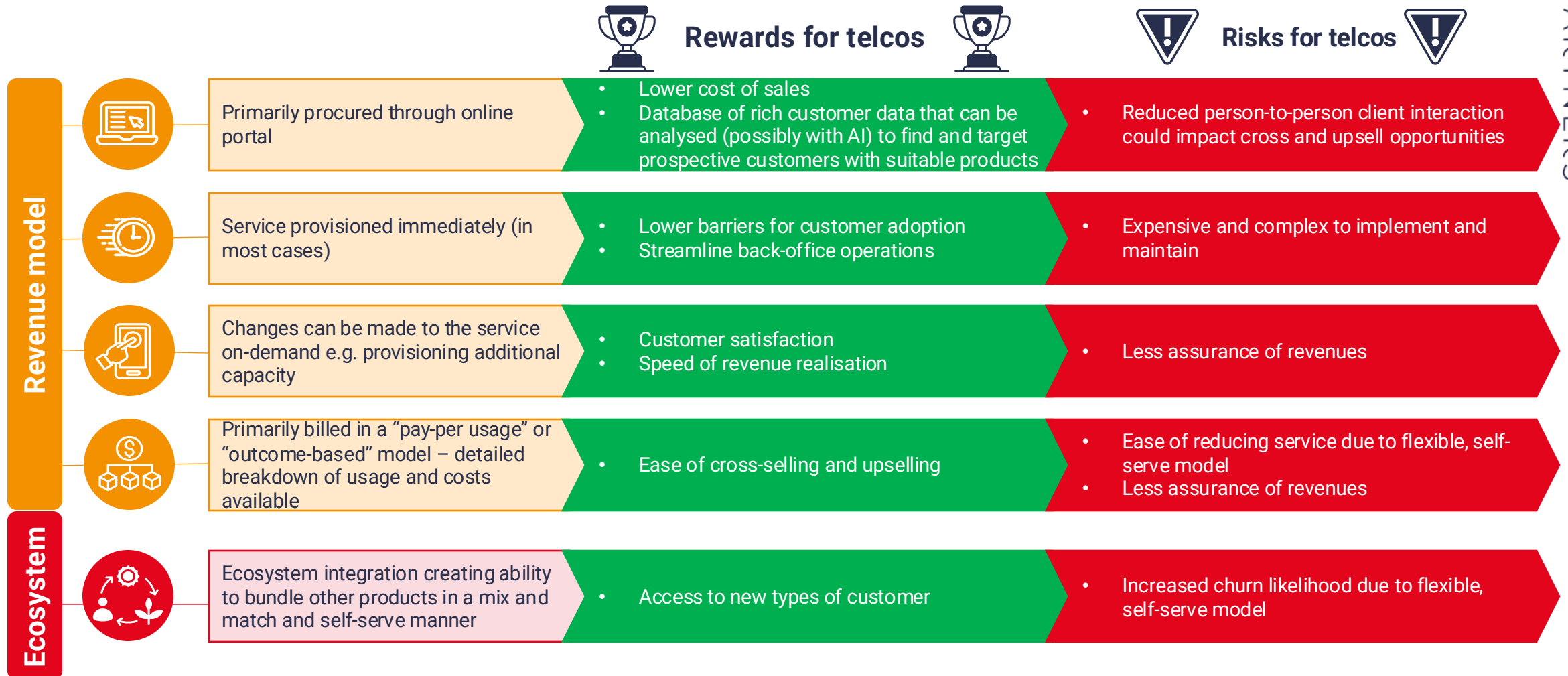


How big is the NaaS opportunity and what are the risks and rewards associated with adopting the platform approach?

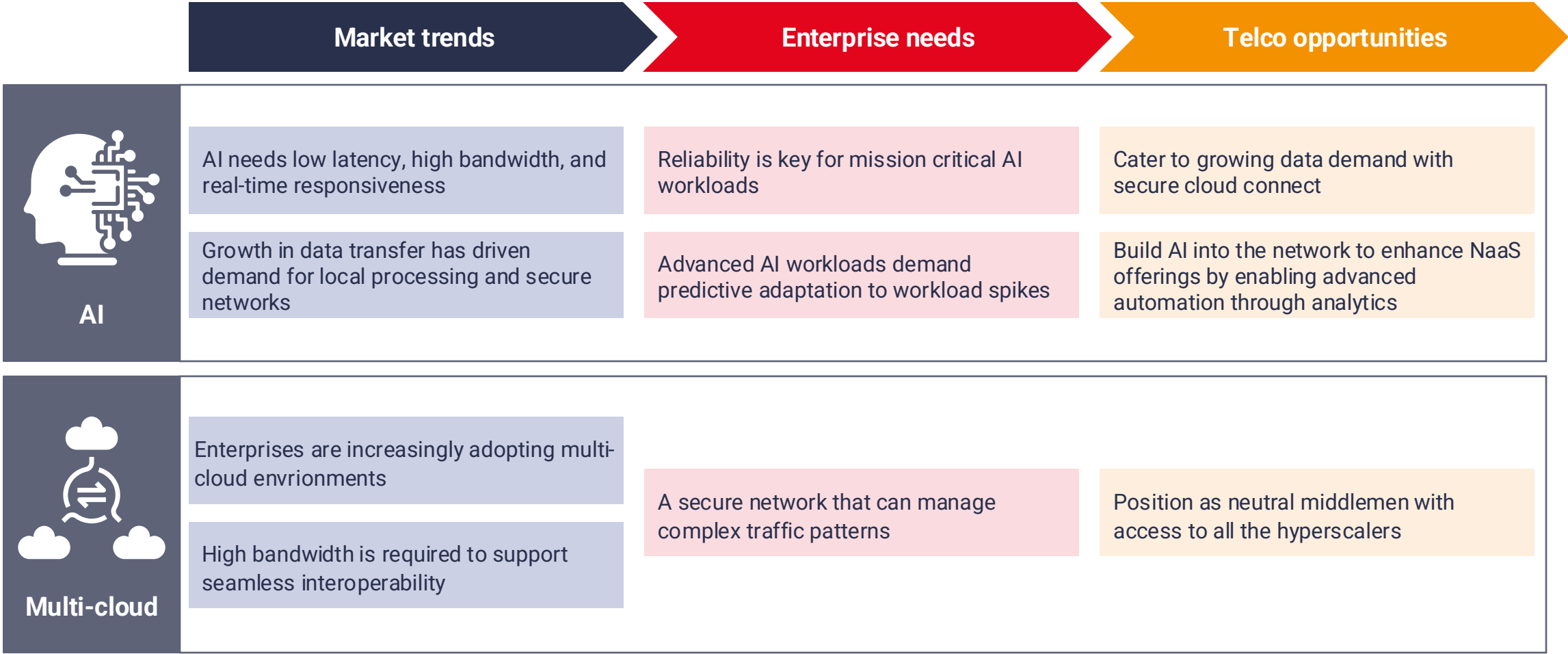
But there are risks and rewards for telcos trying to emulate the platform model

Customer experience with a platform model		Rewards for telcos	Risks for telcos
Revenue model	 Primarily procured through online portal	 - Lower cost of sales - Database of rich customer data that can be analysed (possibly with AI) to find and target prospective customers with suitable products	 Reduced person to person client interaction could impact cross and upsell opportunities
	 Service provisioned immediately (in most cases)	 - Lower barriers for customer adoption - Streamline back-office operations	 Expensive and complex to implement and maintain
	 Changes can be made to the service on-demand e.g. provisioning additional capacity	- Customer satisfaction - Speed of revenue realisation	N/A
	 Primarily billed in a “pay-per usage” or “outcome-based” model – detailed breakdown of usage and costs available	Ease of cross and upsell	- Ease of reducing service due to flexible, self serve model - Less assurance of revenues
Ecosystem	 Ecosystem integration creating ability to bundle other products in a mix and match and self-serve manner	Access to new types of customer	Increased churn likelihood due to flexible, self serve model

Telcos must invest in new internal capabilities to unlock the NaaS revenue opportunity



Telcos should also be cognisant of how emerging trends will impact enterprise NaaS requirements



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Networks are unique in their requirements, so the XaaS platform model must be applied with nuance

STL has outlined the following **guiding principles** for telcos looking to unlock growth with B2B NaaS services

BUSINESS MODEL

- 1 Build a business case for NaaS with ROI calculations that are based both on external monetisation and internal efficiencies
- 2 Leverage NaaS to strengthen your position as a wholesale as well as enterprise player, offering services to telcos, hyperscalers, and enterprises
- 3 Clearly define what needs to be developed internally, such as mindset changes and software skills, versus what is better procured or partnered for, like advanced automation engines

SERVICE DEVELOPMENT

- 4 Only develop a proposition when there is a qualified enterprise need – do this by working in cross functional teams across IT, networking, product and sales – and make sure it isn't over-spec'ed
- 5 Build a modular and interoperable platform and only prioritise features that are universally attractive to enterprises, such as zero-touch provisioning
- 6 Differentiate from the hyperscalers by retaining qualities that enterprises uniquely like about their telco suppliers – its unlikely that an enterprise will want to take out a hybrid private network without speaking to your team

STL make the following recommendations for telcos looking to address specific NaaS service revenues



Network APIs	Secure cloud connect	IoT and IIoT	Hybrid private networks
Identify developer communities and use cases to specialise in to differentiate versus other northbound platforms	Differentiate on sovereignty , positioning telco networks as the most secure for sensitive workloads	Target verticals that align with your brand and existing capabilities, and plug capability gaps where possible	Emphasise your spectrum ownership and expertise in network design and operations
Leveraging increasing availability of 5G SA networks to develop low latency and high-bandwidth capabilities	Position yourself as a neutral player , pragmatically supporting multi-cloud strategies	Highlight integration with network edge for better performance at lower cost than on-prem edge solutions	Demonstrate that by leveraging the public core customers can scale as and when required, without over provisioning
Create pricing models that simplify business case creation, (e.g. based on transactions or access rather than API calls)	Position as a full-service edge to cloud provider (unlike the hyperscalers who have failed to do both)	Expand beyond connectivity by developing platforms and marketplaces for data monetisation	Develop customised solutions for distributed verticals , exploring monetisation beyond connectivity

Join us at MWC Barcelona for deep-dive analysis of the four net new NaaS services including:

- > Total addressable revenues to 2030
- > Adoption drivers
- > SWOT analysis
- > Case studies

Tuesday 4th March, 08:00-10:00 CET

Gaudi Meeting Room, Eurotel Gran Via Fira

[Click here to register for the event](#)

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Network automation to unlock NaaS revenues

Hanen Garcia

Global Telco Solutions Manager

Enabling the NaaS opportunity



Adopt a Cloud-Native NaaS Platform

Transition to a cloud-native infrastructure for dynamic provisioning, scalability, and automation

Build a Common API Framework

Consistently manage API initiatives across network and other domains to scale services and simplify integrations.

Embrace Network Automation

Automate routine operations, such as configuration management, fault detection, and service provisioning.

Ensure Robust Security and Compliance

Implement secure APIs adhering to data protection regulations, positioned as a reliable option for mission-critical services



Adopt a Cloud-Native NaaS Platform

App Runtimes & Frameworks

- ▶ Java Framework Support: Quarkus & Spring Boot
- ▶ In-memory cache: Data Grid
- ▶ Web server: JWS/Tomcat
- ▶ Node.js
- ▶ Identity & Access Management: Keycloak

Microservices & APIs

- ▶ API Manager: 3scale
- ▶ API Designer: Apicurio
- ▶ API Registry: Apicurio
- ▶ Istio Service Mesh Extension

Events & Messaging

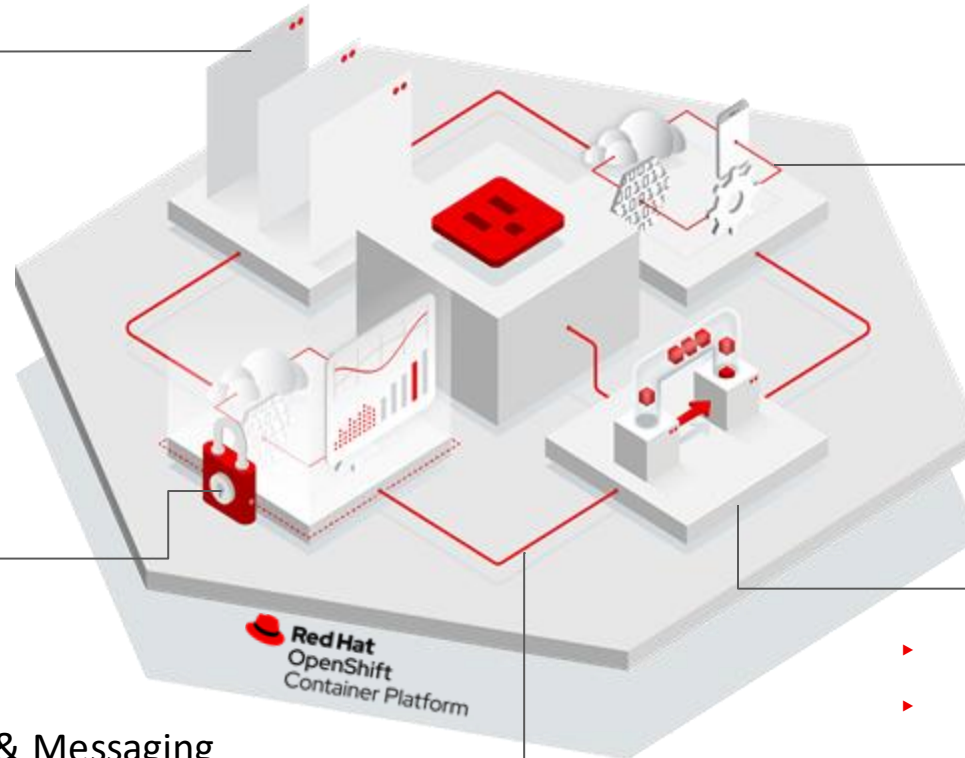
- ▶ JMS Message Broker: AMQ Broker
- ▶ Data Streaming with Apache Kafka: AMQ streams
- ▶ Schema Registry: Apicurio
- ▶ Change Data Capture with Debezium

Integration & Connectivity

- ▶ Comprehensive Connectors: Camel
- ▶ Microservices Orchestration: Camel
- ▶ Data Transformation: Camel
- ▶ Hybrid Connectivity: Service Interconnect

DevSecOps & Tooling

- ▶ Pipelines and GitOps
- ▶ Service Mesh
- ▶ Migration ToolKit for Apps
- ▶ Integrated Development Environment (IDE) Plugins
- ▶ Internal Development Portal (IDP): Developer Hub



Today's networks paradigm?

Operators are in a challenging position as they expand capabilities to next generation networking



Cloud Native Network Elements

4G/5G Core Networks

OSS/BSS applications



Legacy Appliances Network Elements

Access Networks

Transport Networks



Why automate your network?



Productivity

Improve your team's responsiveness to increased demand for changes.



Compliance

Ensure continuous compliance with changing policies and regulations.



Availability

Increase network uptime with more effective testing and management.



Resilience

Respond automatically in a predefined manner to observed events in your network.



How can we simplify a task or set of tasks using automation?



eight lines of code

can back up hundreds if not

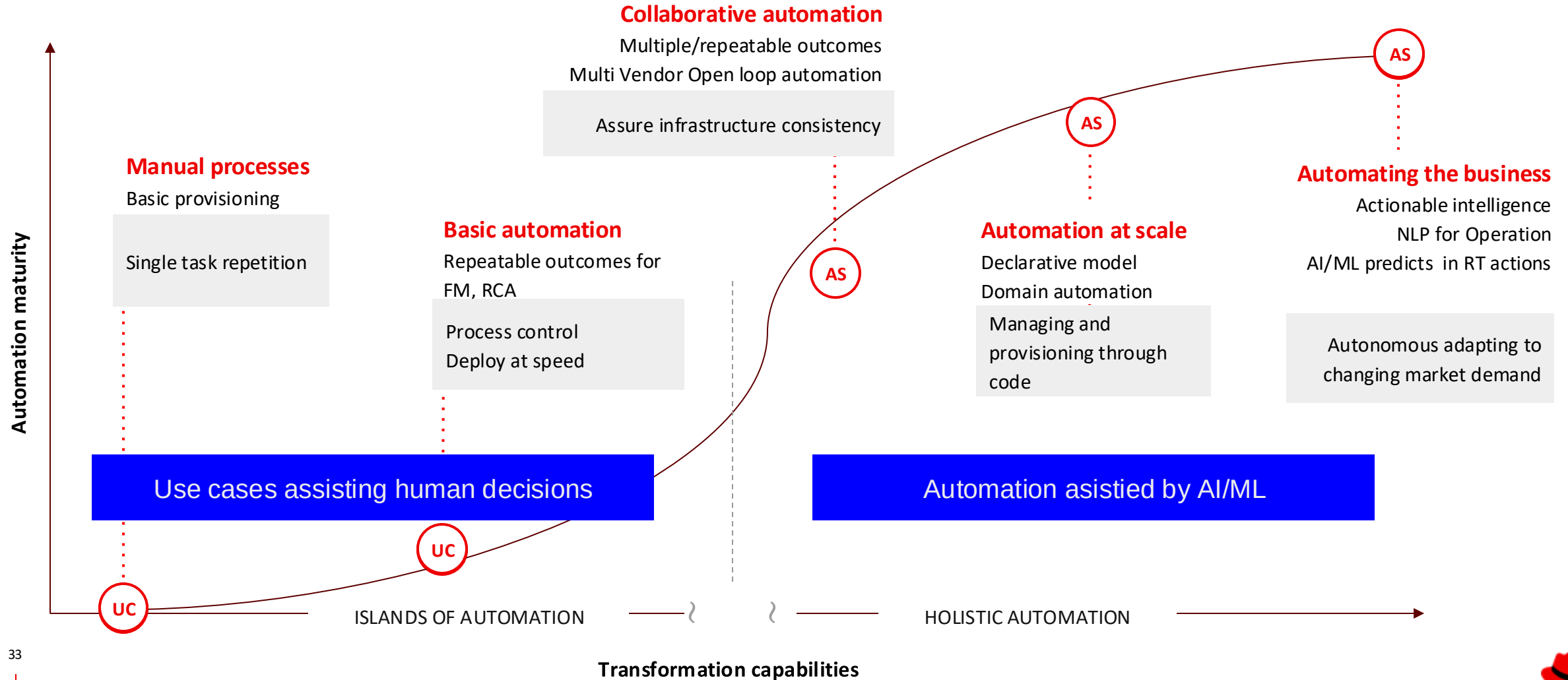
thousands of devices

at the same time, saving network operators time without the need to learn a programming language like Python or having to write, explain and maintain their own custom scripts.

```
---
- name: network backup
  hosts: all
  gather_facts: false
  tasks:
    - name: multi platform backup
      include_role:
        name: network.toolkit.backup
```



Transforming from task to business automation



Network automation to unlock NaaS revenues



Adopt Cloud-Native NaaS Platform

Leverage cloud infrastructure to provide on-demand, scalable, and API-driven network capabilities to enterprises and developers.



Embrace Network Automation

Integrate network automation tools with API platforms to enable enterprises to customize and deploy network services in real-time.



Implement Flexible Business Models

Combine network technologies, open APIs, automation, and innovative business models, to unlock revenue streams from the NaaS market.



Thank you

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Our panel discussion

Moderator



Tilly Gilbert

Director, Consulting &
Edge & Cloud
Practice Lead

STL Partners

Panellists



Chris Thornton

Edge and Private
Network Ecosystem

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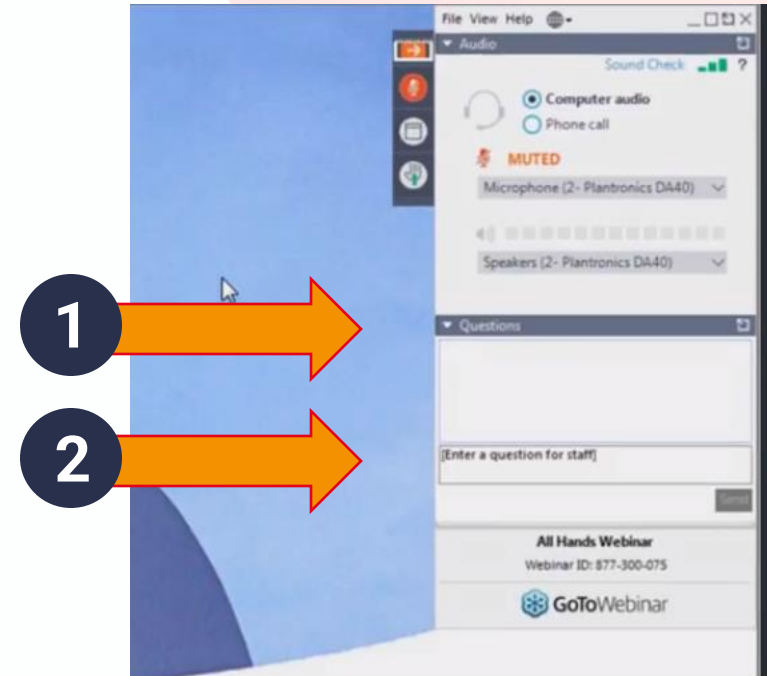
Alexis Koalla

Director Operations
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For our Q&A...

Please submit any questions using
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Thank you for joining!

All registrants will be receiving the link to the recording and slides shortly to watch back or to share with colleagues, plus a Q&A write-up in due course.

For any other questions, please contact:

- Anna Boyle, anna.boyle@stlpartners.com
- Zoey Yin, zoey.yin@stlpartners.com



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In this report, we update our model of the financial value of adding AI, analytics and automation (A3) into a

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