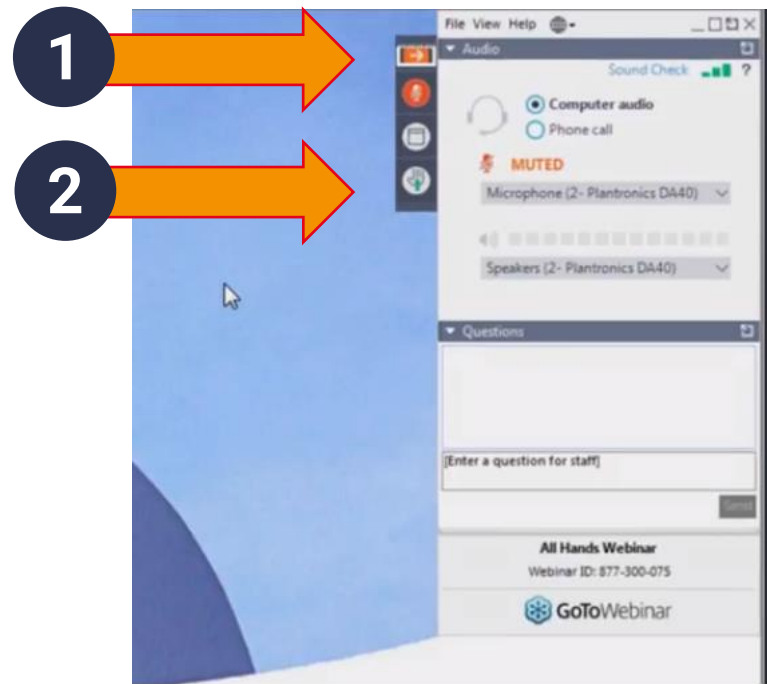


Making network slicing a reality: how should telcos transform?

Tuesday 15th February

4pm GMT | 11am EST | 8am PST

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- If you need us, please type a comment
- Feel free to type questions throughout the session for Q&A – if your question isn't addressed in the panel discussion, you will receive a Q&A document in our follow-up
- We'll send you the slides and a recording shortly after the session - do share with colleagues
- On Twitter? Tweet us @STLPartners

Presenters and panellists



Dalia Adib
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Senior Consultant

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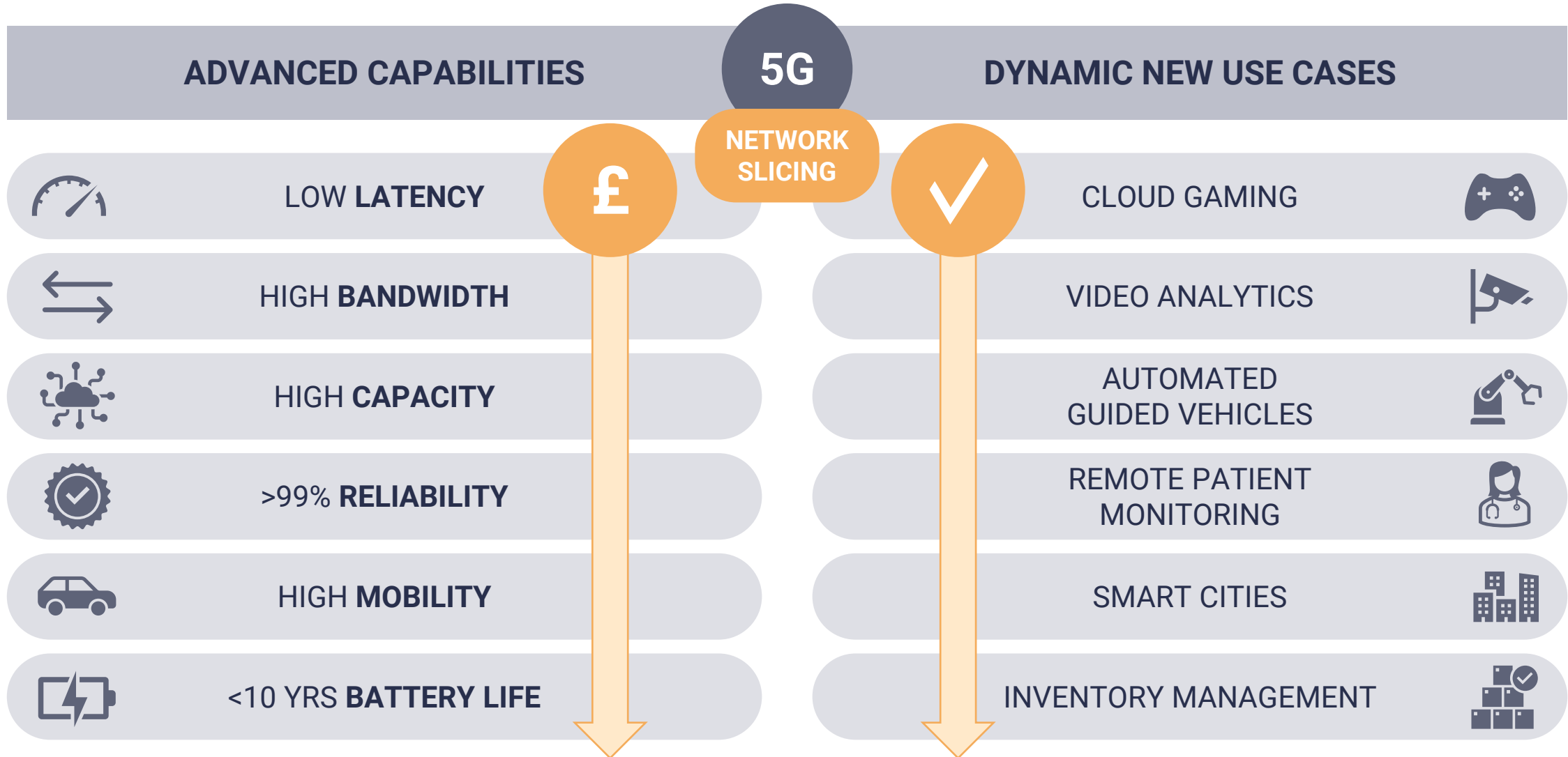
Dheeraj Remella
Chief Product Officer

VoltDB

Network slicing: a telco monetisation opportunity

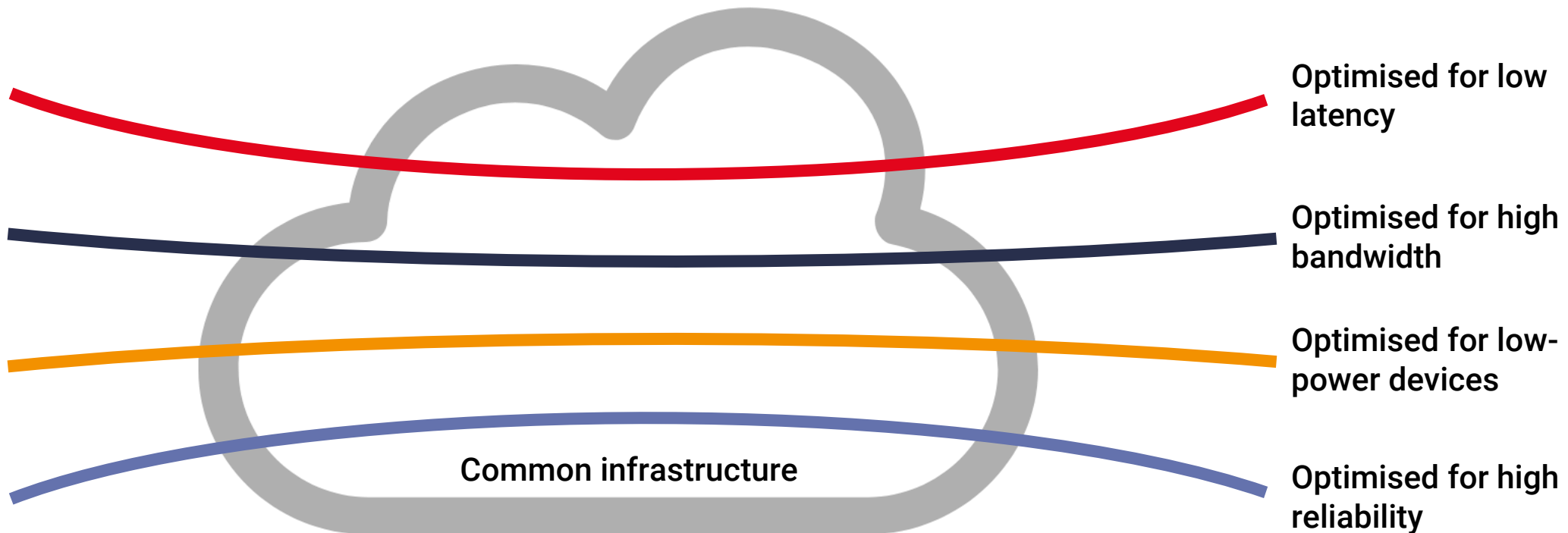
Reah Jamnadass, Senior Consultant (STL Partners)

Why are we talking about slicing?



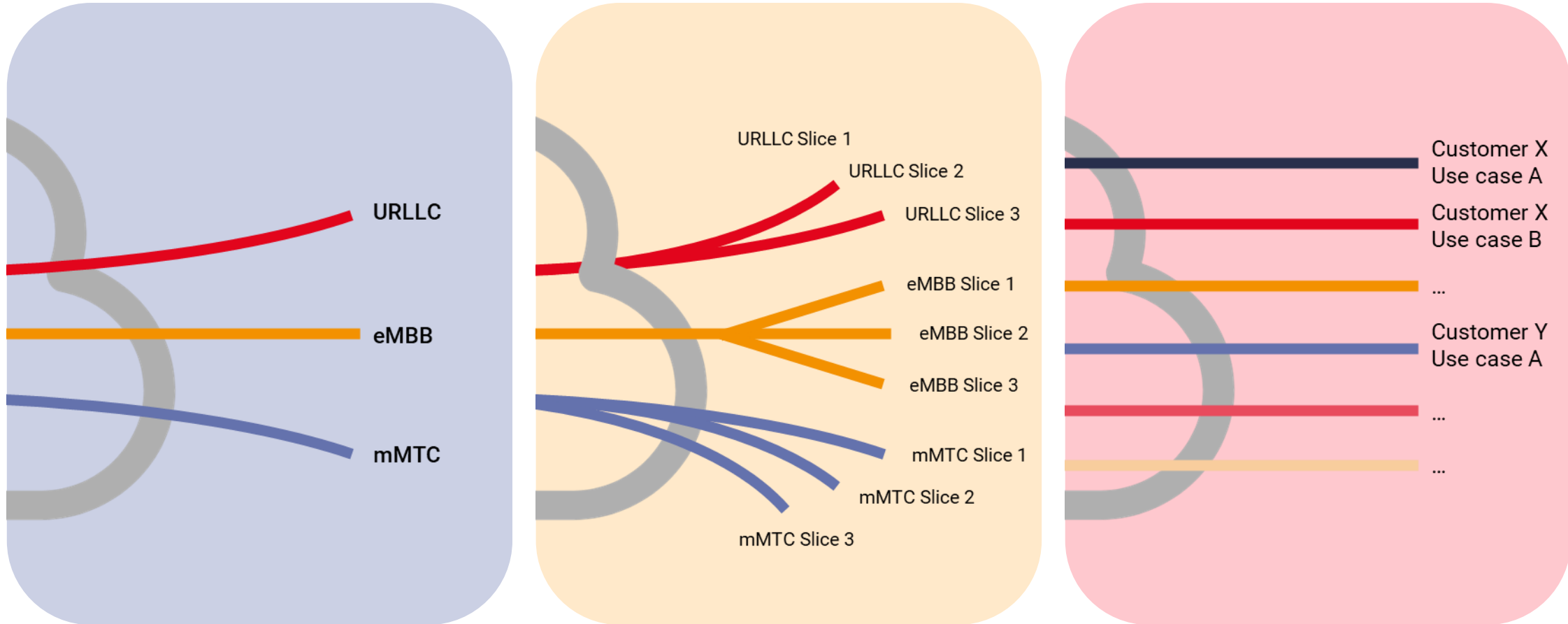
What is slicing?

Slicing is a mechanism for network operators to create and dynamically manage functionally discrete virtualised end to end networks over common infrastructure



What is slicing?


Degree of complexity and automation required to configure and manage this



How does telco IT need to evolve for slicing?

What is driving the need for telco IT to evolve?	Which IT system domains will be <u>most</u> affected by these?					
Divergent customer demands						
New 5G business models						
Network slicing and customisation						
Communications-as-a-Service (CaaS)/ Cloud Platforms-as-a-Service (CPaaS)						
New revenue flows						
	Billing & charging	Policy control	Service provisioning	Partner mgmt.	CVM/ CXM	Fraud & security

How does telco IT need to evolve for slicing?

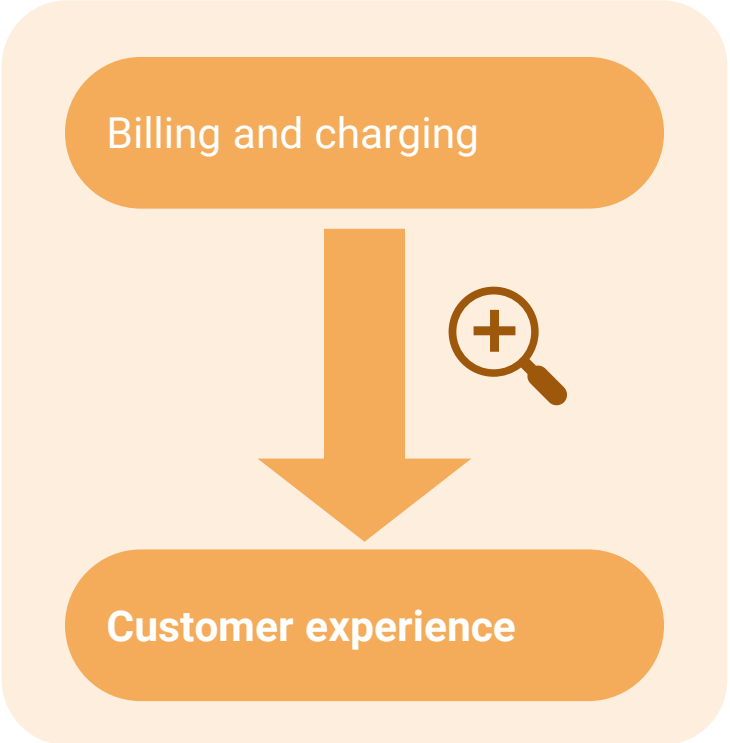


Different ways to charge

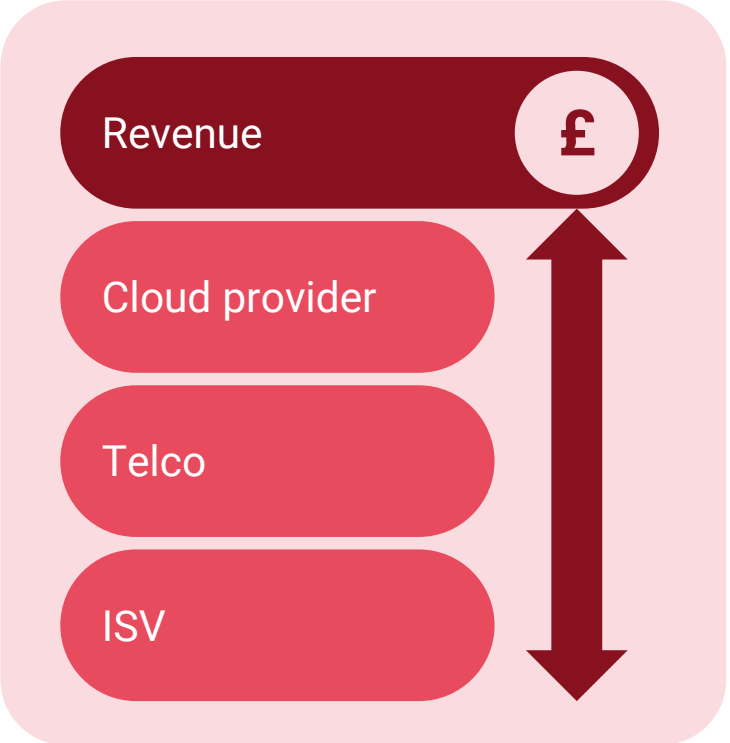
- Per **slice**?
- Per **device**?
- Based on **outcome**?
- Based on **consumption**?



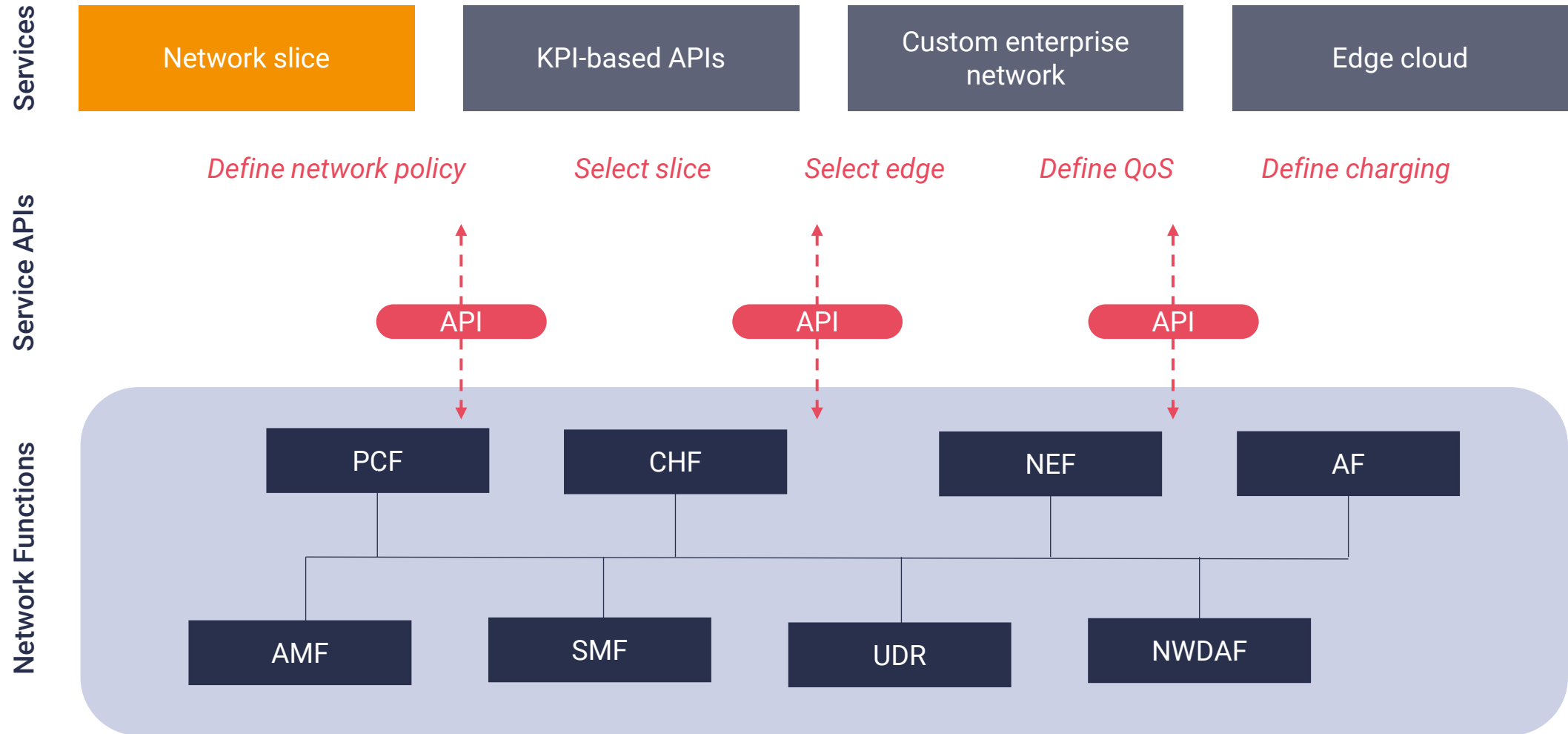
New customers to manage



Multiple solution partners

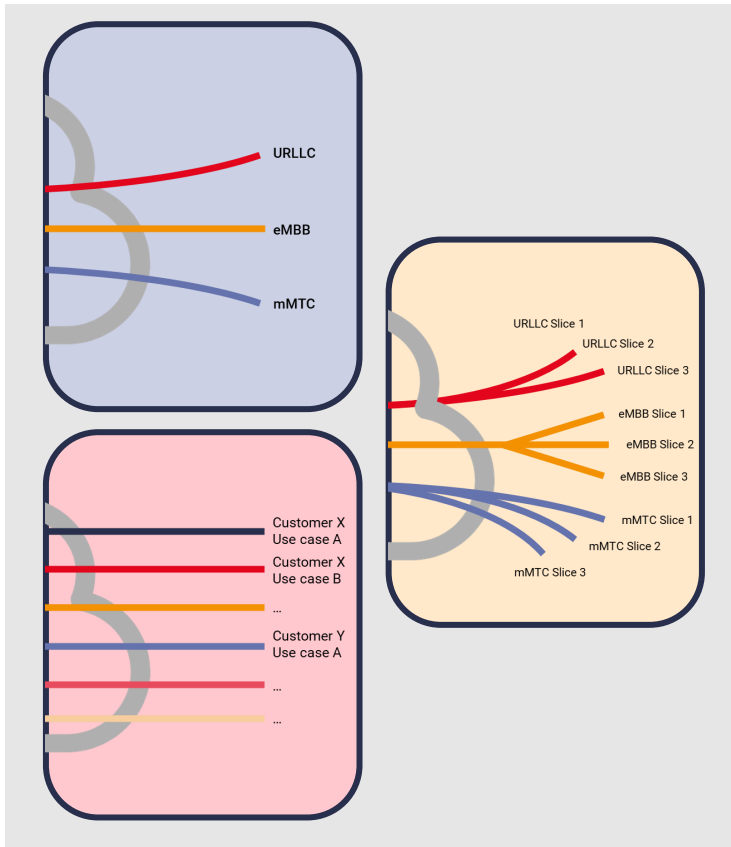


What could this look like in practice?

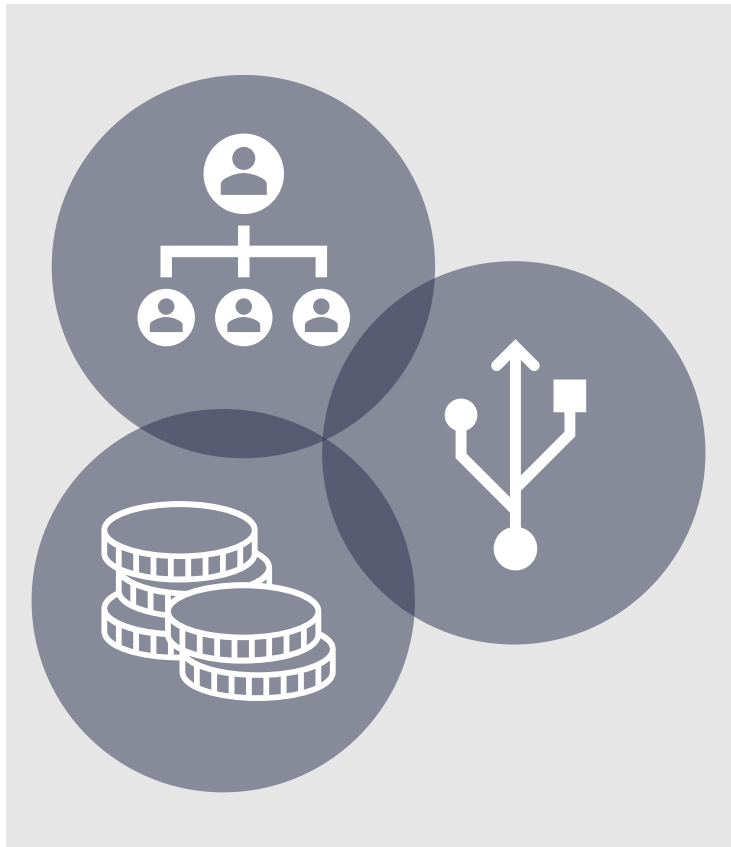


What do CSPs need to consider?

Which slicing model?

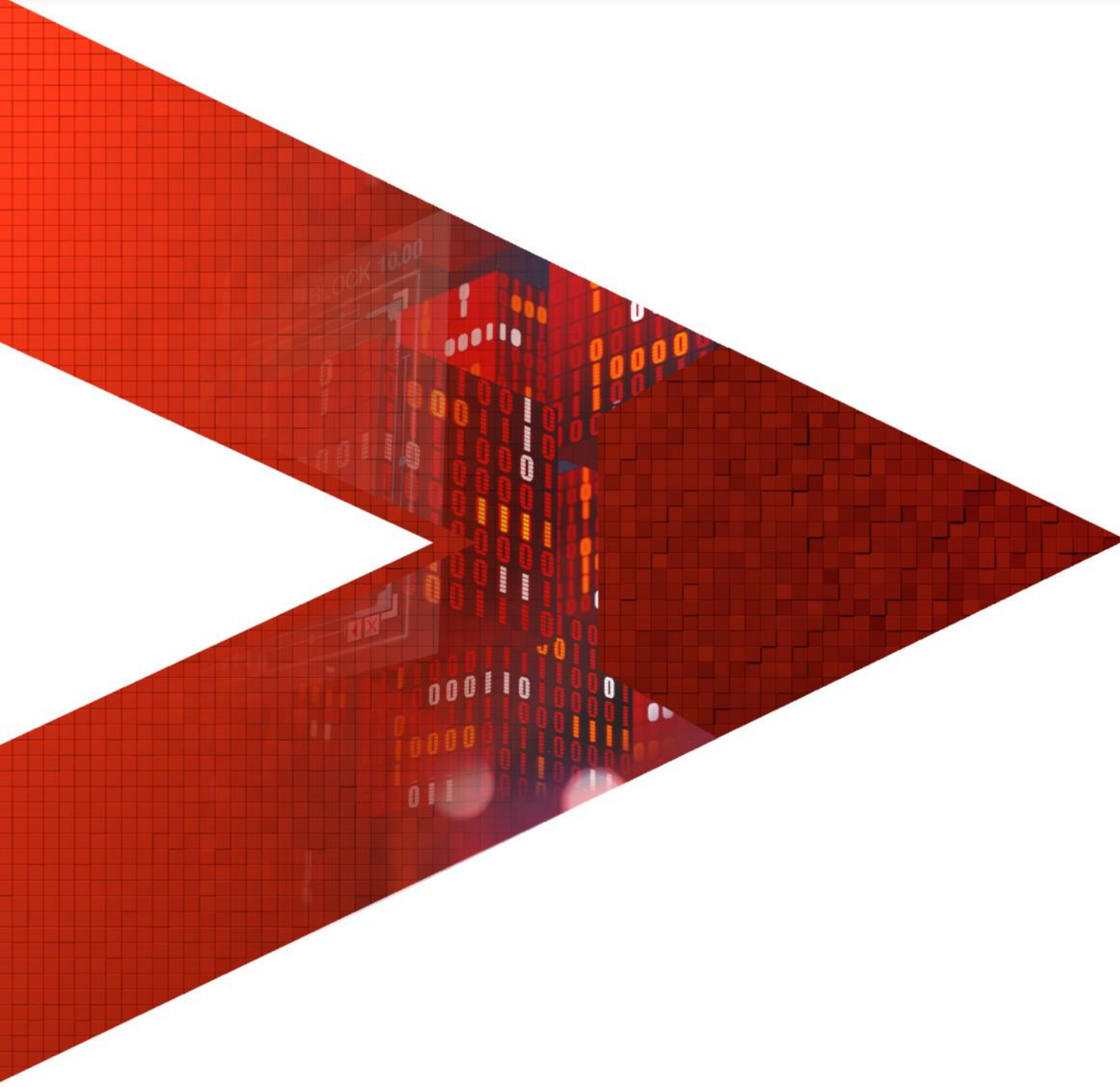


What internal changes?



How to evolve IT?





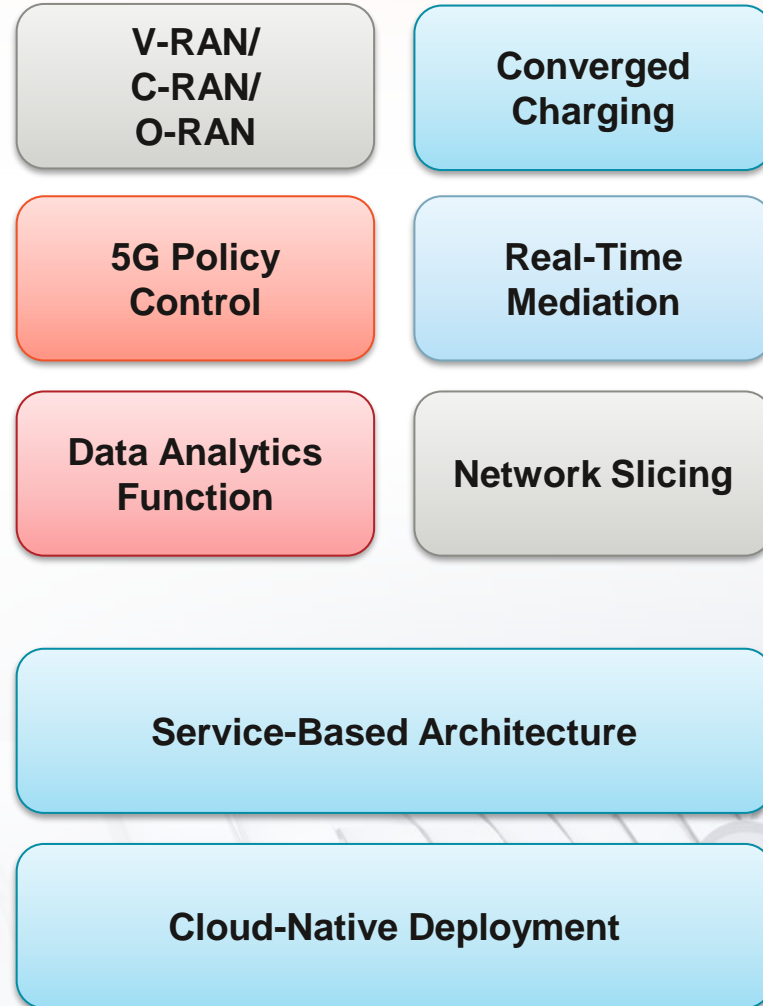
VOLTDDB

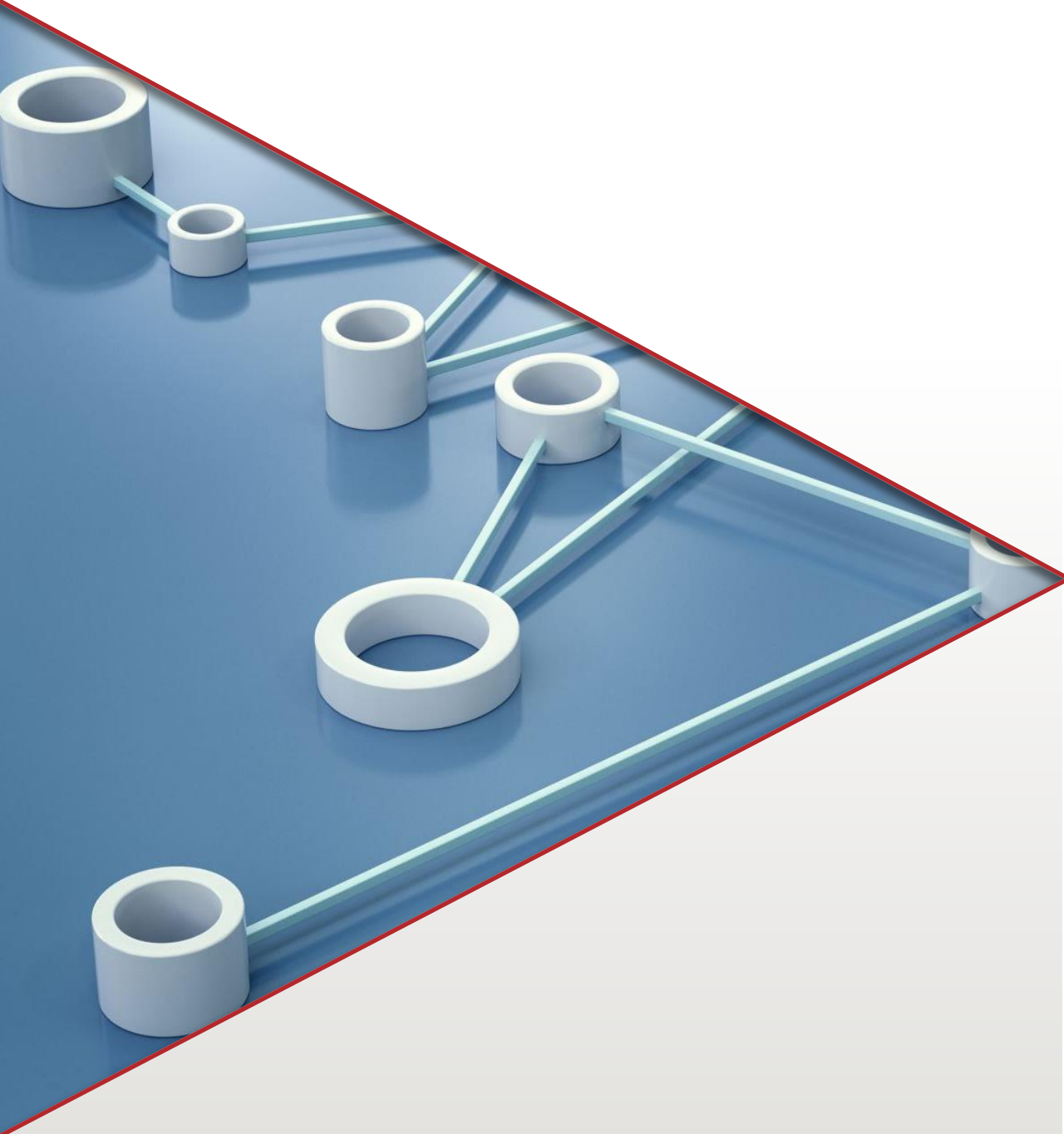
Making Network Slicing Reality
How should telcos transform?

Dheeraj Remella

Chief Product Officer, VoltDB

ENABLING 5G AND 5G-ENABLED





NETWORK SLICING - BENEFITS

Dynamic provisioning of intent-based networks

Leveraging public networks

- Avoiding the cost of upfront investment for private networks

Network isolation

- Failure isolation
- Security breach isolation

Granular billing

- New business models and charging models

Dynamic real-time policies

- Ability to adjust policies as the use case evolves

Slice security

3GPP R16 SPECIFICATIONS



E2E SERVICE BASED
ARCHITECTURE



NETWORK
AUTOMATION



REDUNDANCY TO
ENABLE URLLC



FLEXIBLE
DEPLOYMENT OF
SMFS AND UPFS



SERVICE ENABLER
ARCHITECTURE
LAYER



5WWC – 5G WIRELESS
WIRELINE
CONVERGENCE

3GPP R16 – NEW CHARGING TRIGGERS

5G Network Exposure Charging

AMF Charging

- Registration management
- Connection management
- Location reporting

Network Slice Management Charging

- Allocation
- Modification
- Deallocation

Network Slice Performance & Analytics Charging

Access Traffic Steering, Switch & Splitting Charging



NETWORK SLICING - CHALLENGES

Traditional Charging and Policy cannot scale

- Monolithic architectures cannot scale predictably

Traditional data fabrics cannot meet low latency needs

- Multi-tier technology stacks cannot support latency SLAs

Security cannot be an after-thought

- Rules to ensure security needs to be intertwining with operations

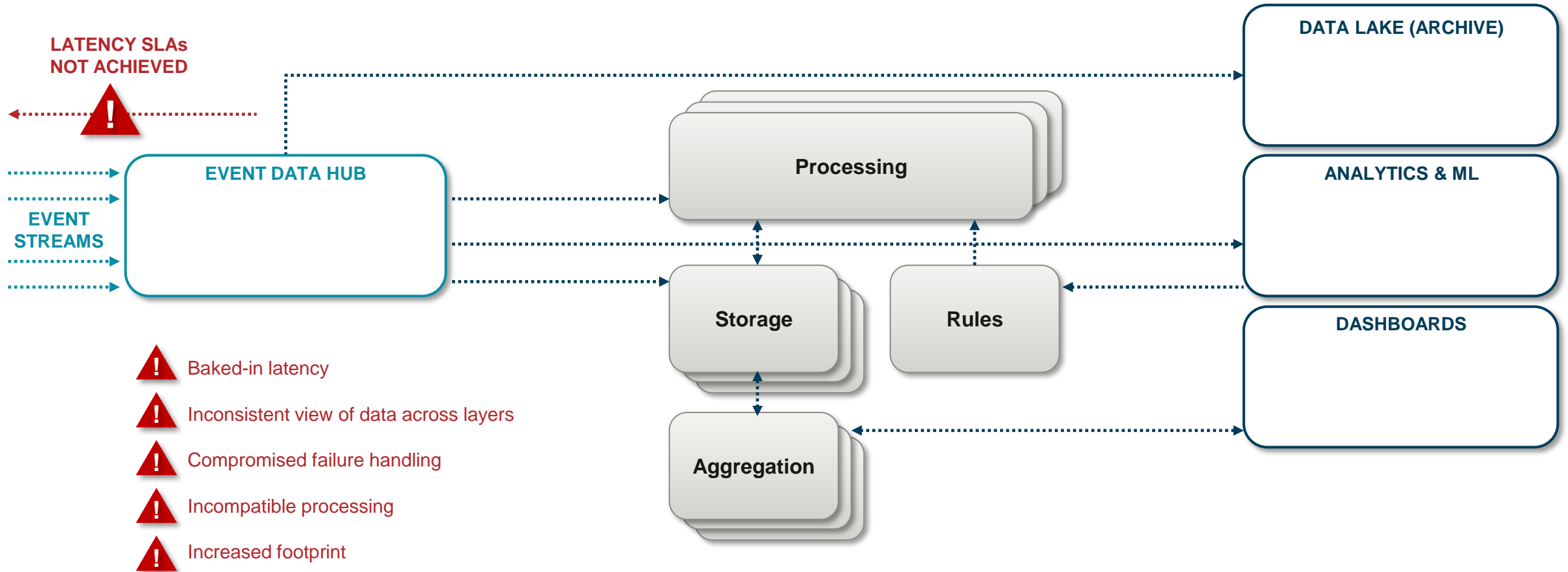
Dynamic policies need ML integration

- Evolving use cases need updating policies based on Machine Learning

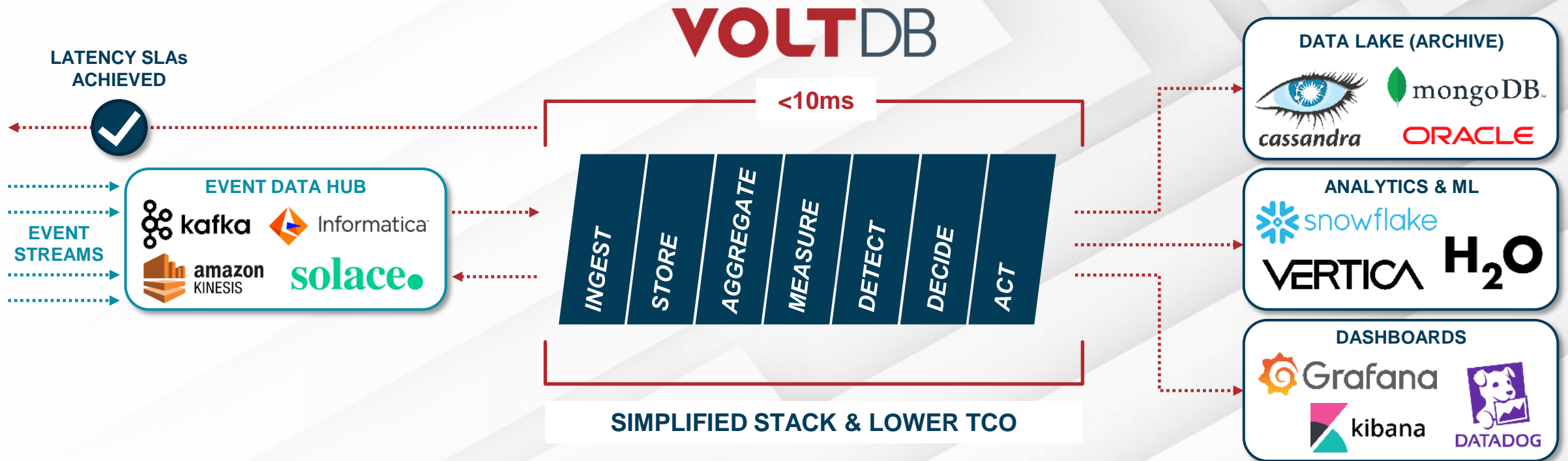
Maintaining consistency in a distributed BSS

- Low latency charging and policy needs distributed BSS at the edge

TRADITIONAL DATA ARCHITECTURE STACK - FAILURES



VOLT – UNIFIED DATA PLATFORM



Q&A

