

Edge computing from the front line

Developer case studies

12 September 2019

Speakers



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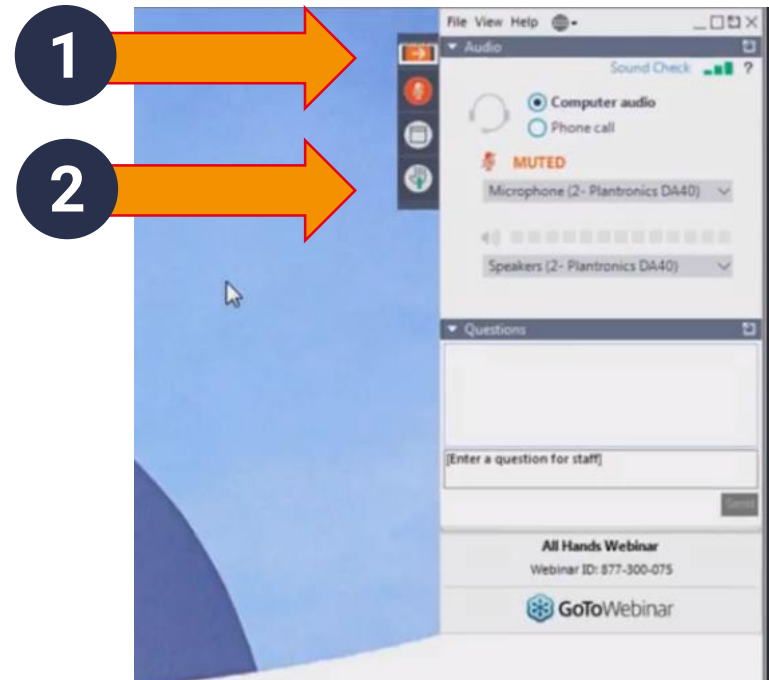
PRESENTER

Agenda

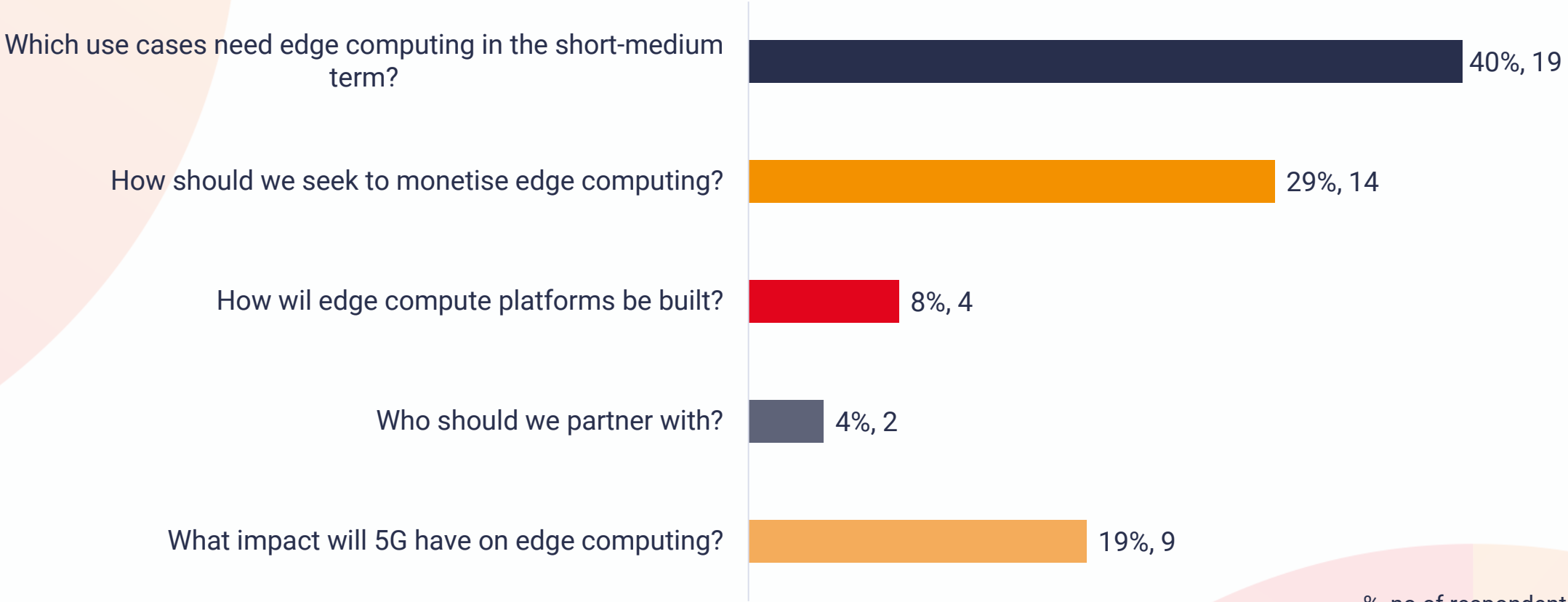
- Housekeeping
- Update on edge computing landscape
- Case studies: insights from edge computing developers
- Implications for telecoms operators
- Q&A
- Wrap-up

GoToWebinar

- You're in listen only mode
- If you need us, please type a comment
- Feel free to type questions throughout the session for Q&A at the end
- We'll send you the slides and a recording shortly after the session do share with colleagues
- On Twitter? Tweet us @STLPartners or @mobilegex



Poll 1: What is the biggest question your organisation is trying to tackle in edge computing?



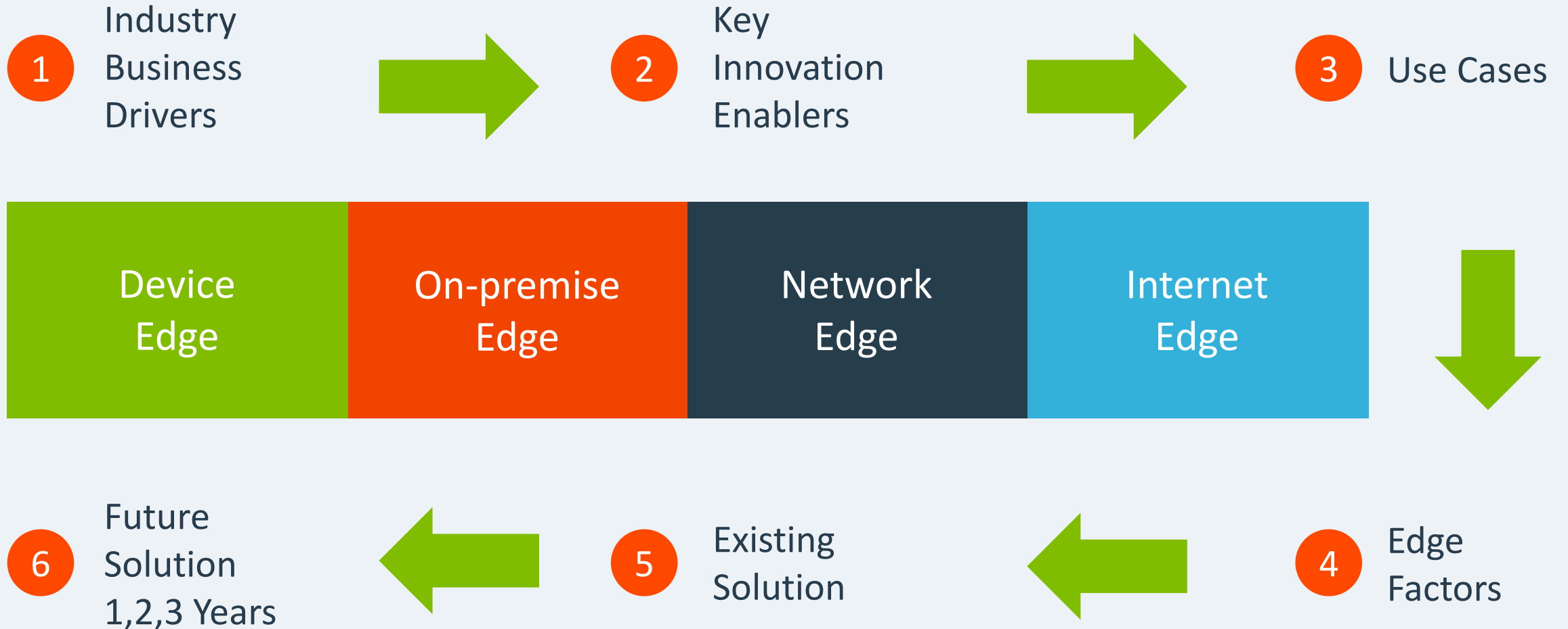
%, no of respondents

Responses from live webinar, 12th September 2019

Update on edge computing landscape

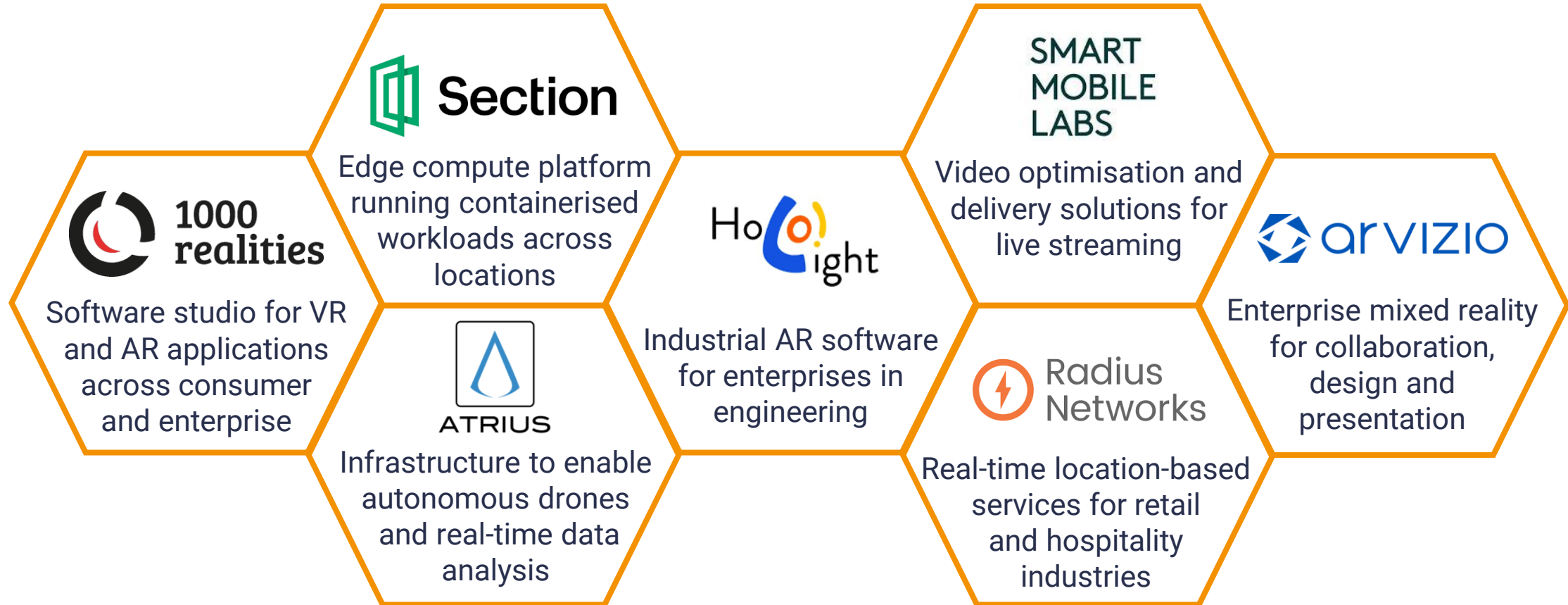
Edge Computing Use Case Discovery

DOMAIN



Case studies: insights from edge computing developers

Today's webinar is based on findings from an interview programme with 7 companies exploring edge









These companies are at different stages of exploring edge computing, partly driven by “which edge”

Level of experience using edge

| 1. Exploration | 2. Ecosystem engagement | 3. PoC | 4. Design, build & test | 5. Commercial | 6. Scaled |
|----------------|-------------------------|--------|-------------------------|---------------|-----------|
|----------------|-------------------------|--------|-------------------------|---------------|-----------|

Cloud

Network

 Section
  ATRIUS
  Holoight
  1000 realities
  SMART MOBILE LABS
arvizio
  Section

On-premises

 Radius Networks

Device

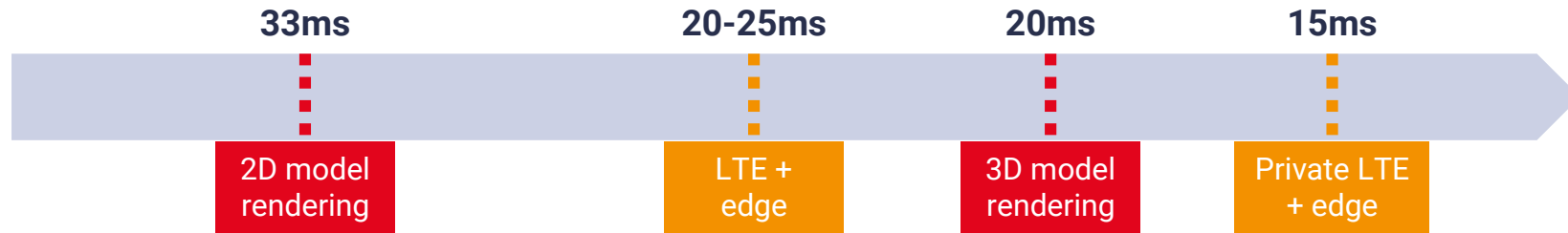
What's driving these developers to adopt edge computing?

Bandwidth and latency dominate



| | Retail & Wholesale – Location Based Services | Augmented Reality / Virtual Reality | Video/Media (Upstream & Downstream) | Drones: Unmanned Traffic Management | Drones: Data Processing & Analytics |
|--------------------------|--|---|---|-------------------------------------|--|
| Why edge? | Local real-time analysis of location data | Offload processing power and maintain real-time interaction | Low latency streaming and capacity (bursting) | Autonomous navigation | Avoid cost of moving data to central cloud |
| Latency Critical Compute | ■ □ □ | ■ ■ ■ | ■ ■ ■ | ■ ■ ■ | ■ □ □ |
| Heavy I/O | ■ ■ ■ | ■ ■ ■ | ■ ■ □ | ■ ■ □ | ■ ■ ■ |
| Geo-Spatial Knowledge | □ □ □ | ■ □ □ | □ □ □ | ■ ■ □ | □ □ □ |
| Hyper-Local Grouping | □ □ □ | ■ □ □ | □ □ □ | ■ ■ ■ | ■ □ □ |
| Data Residency | ■ ■ □ | ■ ■ □ | ■ □ □ | ■ ■ □ | ■ ■ □ |

Latency requirements vary across use cases

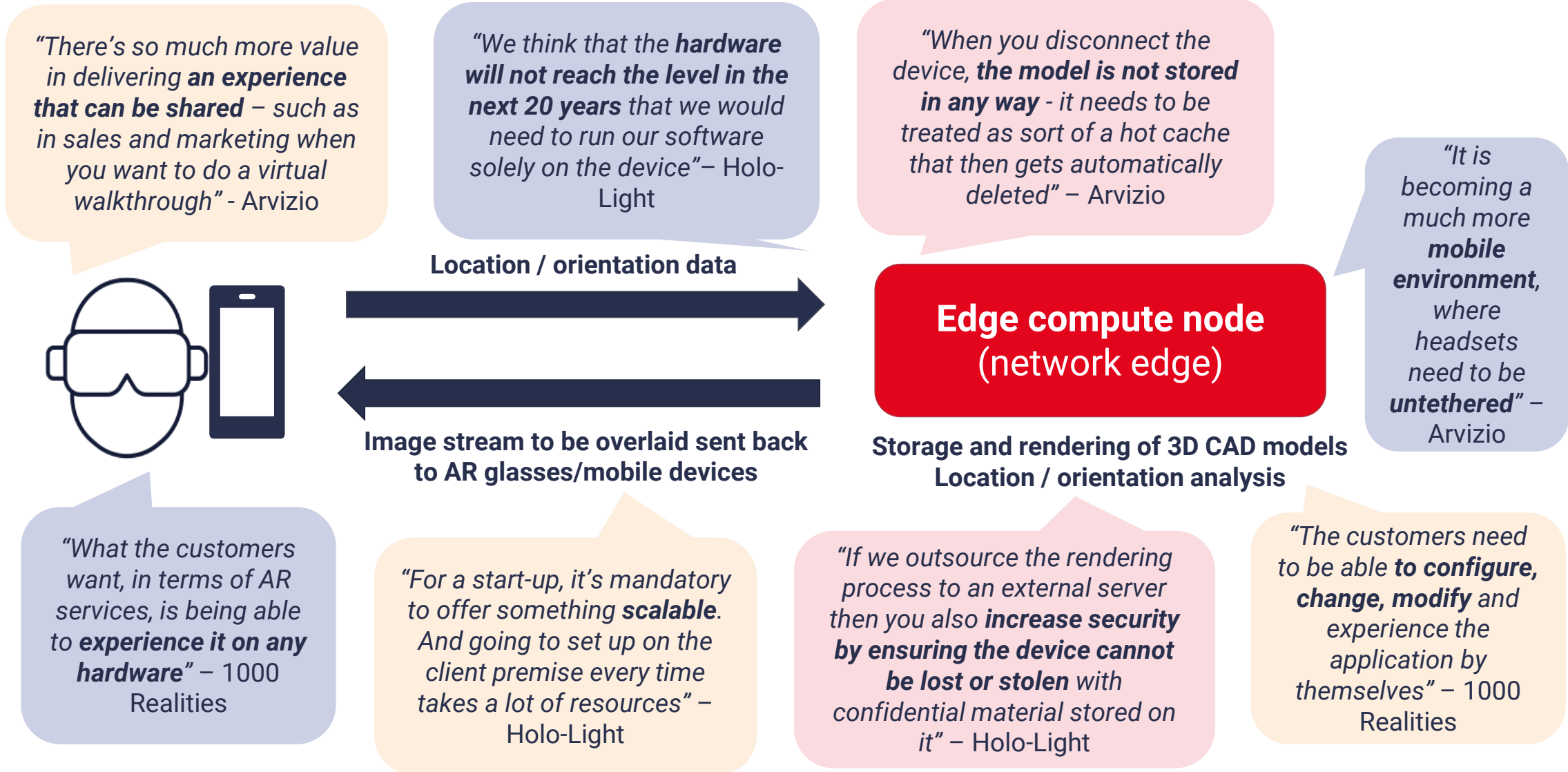


“One of the autonomous corridors is here in Austin. The majority of the carriers go all the way to Dallas or Houston to hand off. So, even before we had the data about where the drone is, and what it's doing handed off to us, we're already at over 100 milliseconds”

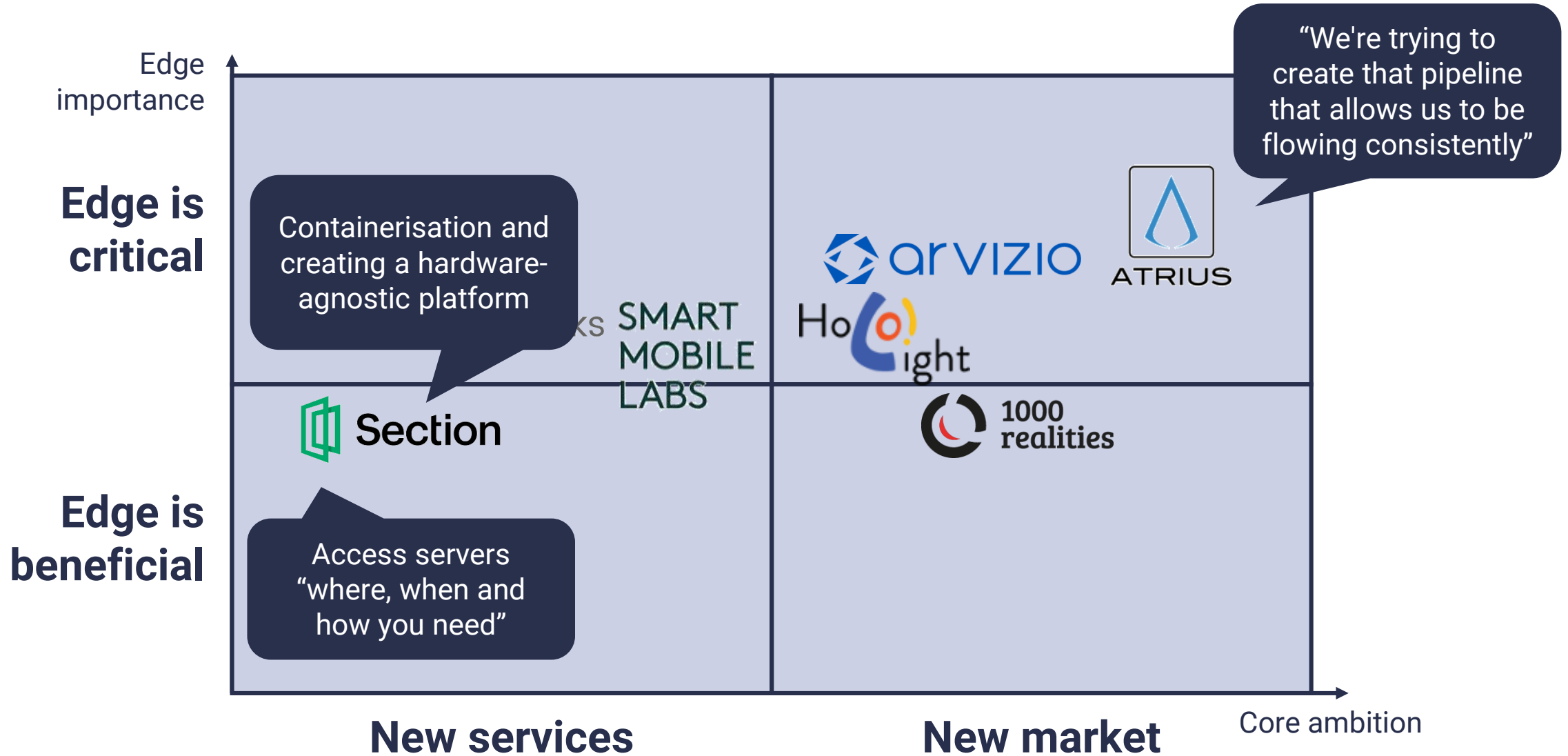
Key

- Benchmark/target
- Actual

Evaluation of specific use cases reveals that the drivers for the developer are more nuanced

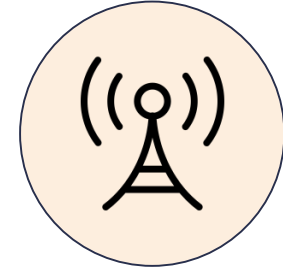
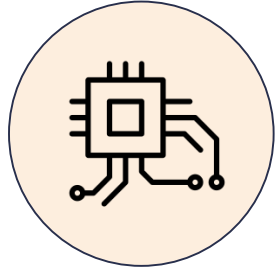


Ultimately, for a start-up, these technical requirements have to translate into a unique compelling proposition



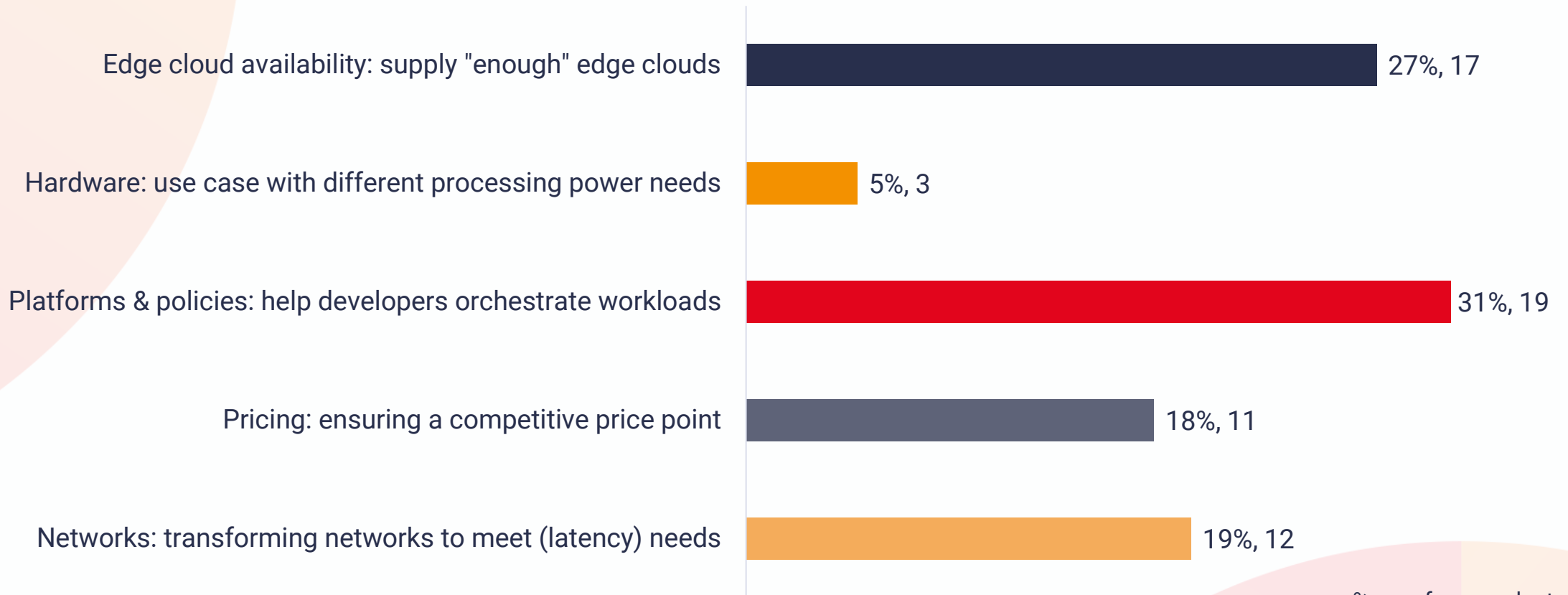
Implications for telecoms operators

Interviewees highlighted the following challenges – considerations for telcos pursuing network edge



| Edge cloud availability | Hardware | Orchestration & mgmt. | Pricing | Networks |
|--|---|--|---|---|
| <p><i>“What is important for us is to have more operators deploying edge compute locations”</i> - 1000 Realities</p> <p><i>“Somebody has to have a universal infrastructure that everybody ties into”</i> - Atrius</p> | <p><i>“We require Nvidia GPUs and Microsoft operating systems for the virtual machines”</i> - Holo-Light</p> <p><i>“You need persistent, fast SSD storage... can’t be bog standard off the shelf x86 servers”</i> - Arvizio</p> | <p><i>“How are we going to orchestrate workloads in a standardised way?”</i> - Arvizio</p> <p><i>“How do you dynamically move and not have wasted capacity?”</i> - Section</p> | <p><i>“Defining what it costs to really run here [network edge], given certain workloads, is a challenge that we’re actively addressing”</i> Section</p> | <p><i>“[Need for] a RAN network specifically optimised towards machines, where low latency is an absolute... it could be 5.9G[hz], ...that becomes the, the autonomy standard.”</i> - Atrius</p> |

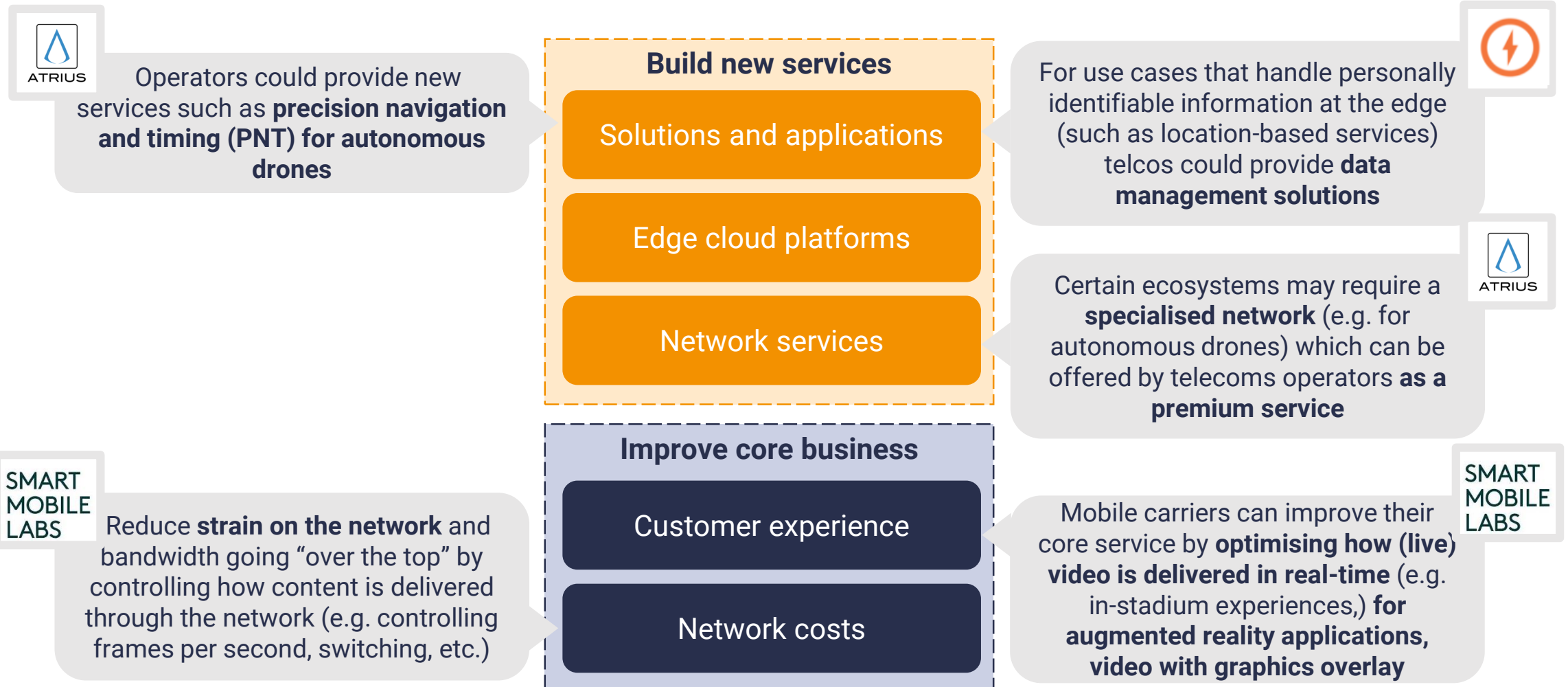
Poll 2: Which is the most difficult challenge for operators to overcome?



%, no of respondents

Responses from live webinar, 12th September 2019

Implications for operators: opportunity to provide new services as well as improve core business



Questions

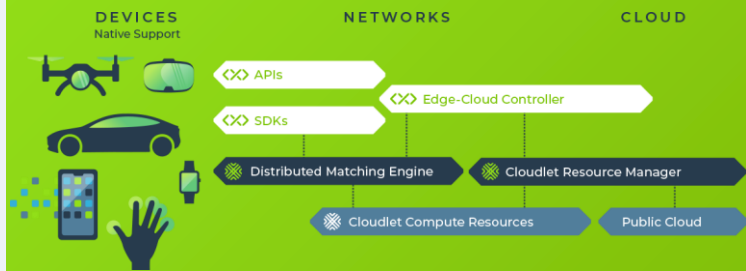
Wrap-up: what's next?

- 1 Learn more by joining the discussion, debate and community
- 2 Build a commercial strategy for edge computing: prioritise use cases, define business models & identify partnerships
- 3 Engage developers to run POCs and co-create edge-enabled applications

Operator Market Discovery Possibilities

1

MoblEdgeX Platform/ MoblEdgeX Business



2

MoblEdgeX Early Access Program



3

Seamster Market Research Community



Thank you

Report will be published in October.

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