Leading Change Inspiring Progress

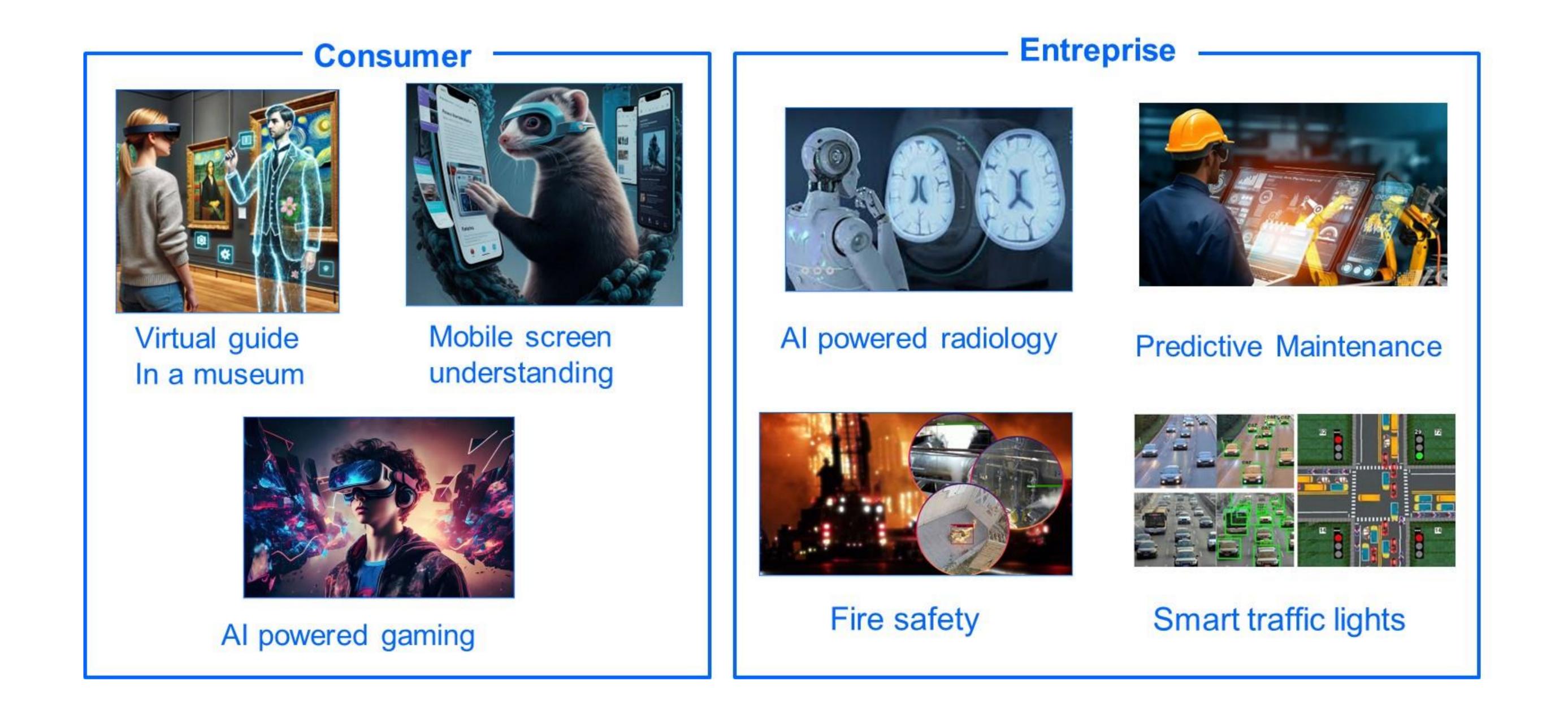




MWC 2025 Network4Al

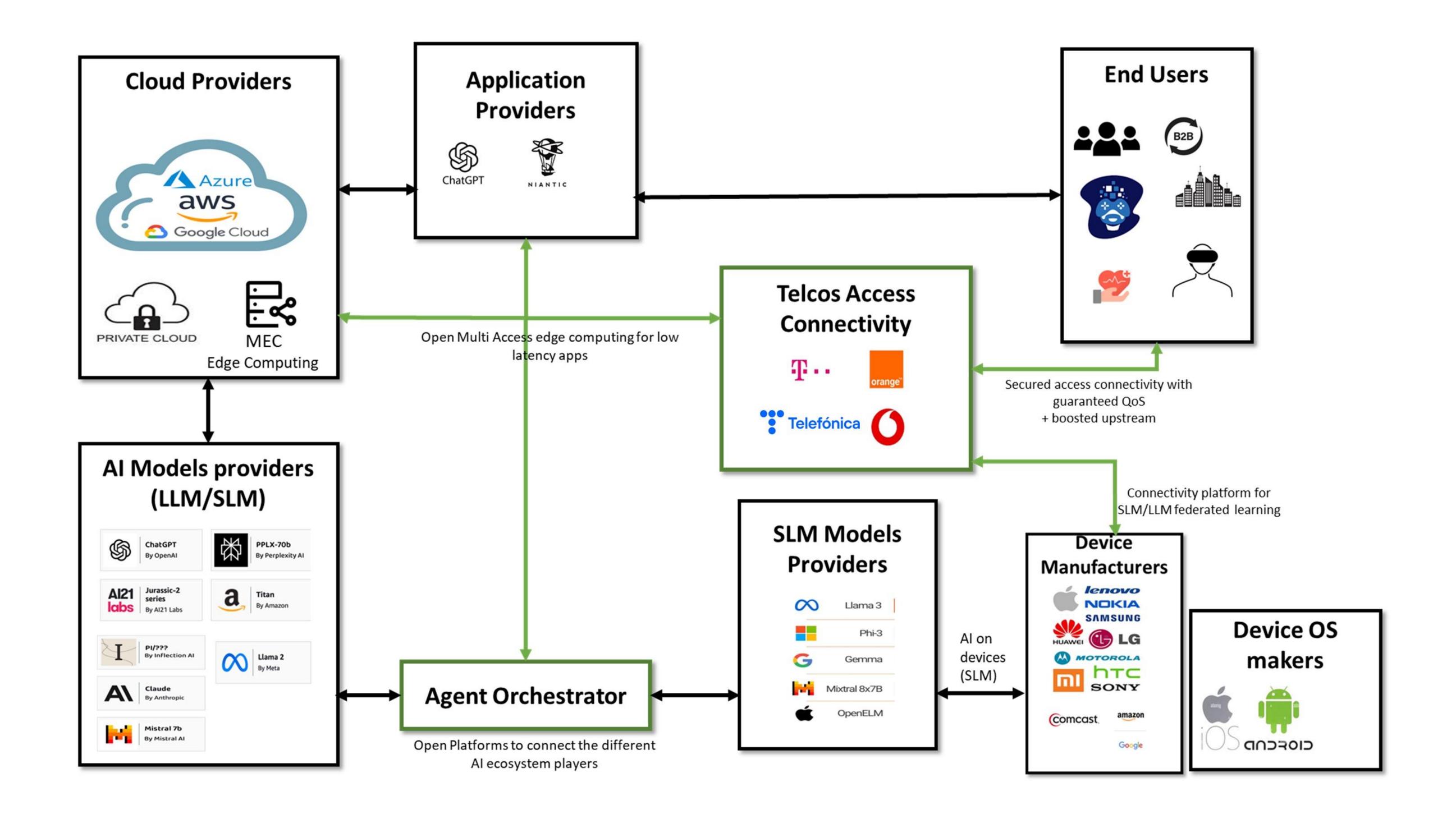
March 2025. Claire Chauvin & Cayetano Carbajo

Both B2C and B2B will enjoy Al services delivered by Telcos





So telcos will play a key role in Al ecosystem



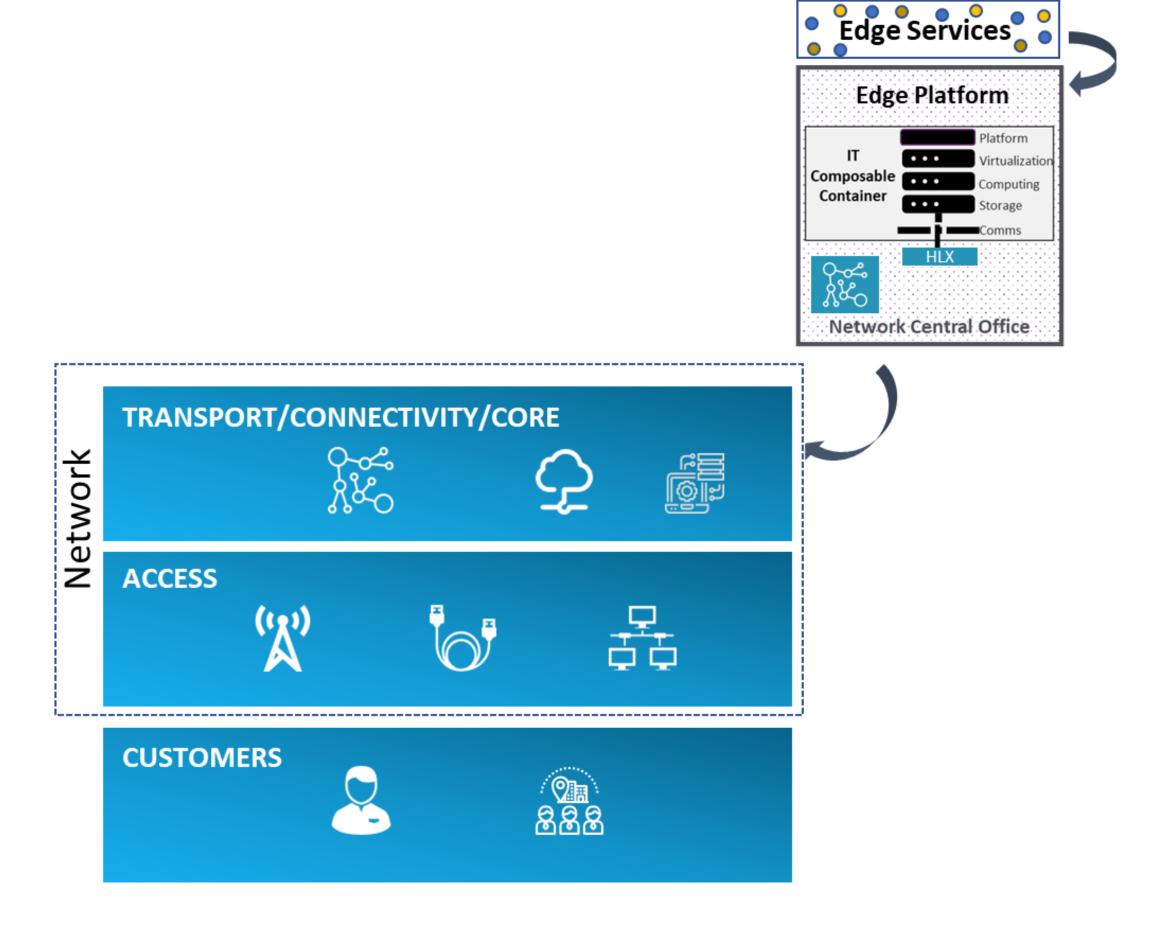


Telco networks are getting prepared to enable this role

Slice 1: Optimized for bandwidth Slice 2: Optimized for low latency Slice 3: optimized for IoT Slice 4: Optimized for connected vehicule

Slicing

Edge



Open Gateway





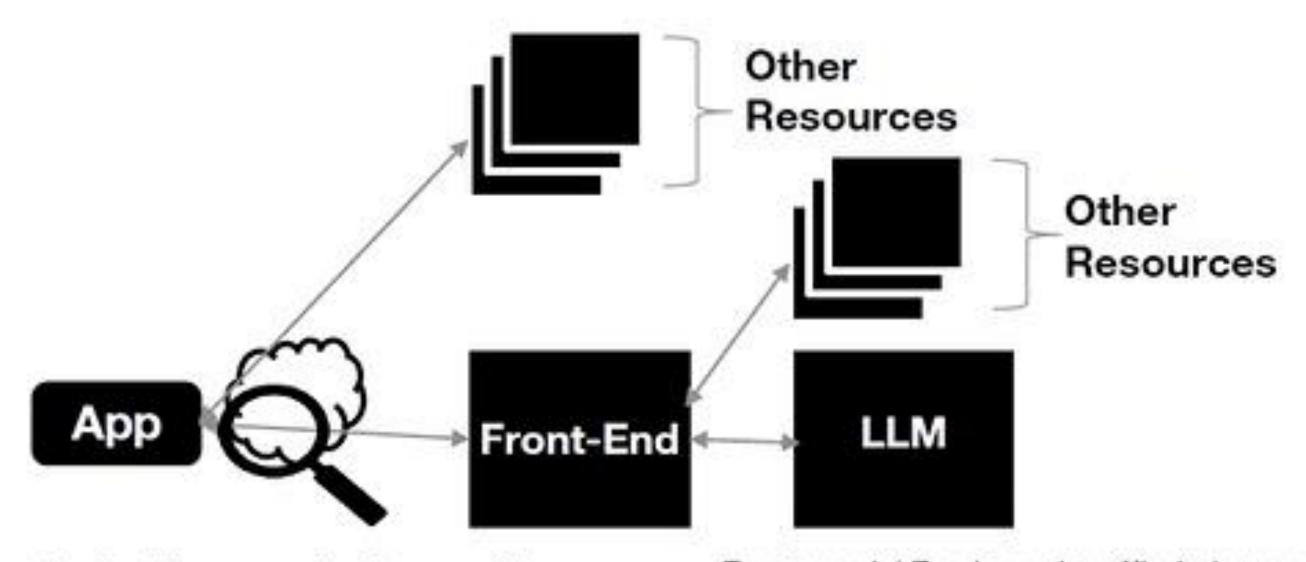
But to provide Al services likely further Network investments will be required

- •The use of Al-driven platforms, applications and services by our customers have increased very significantly over the last 12 months.
- Foreseen rapid growth of AI capabilities suggests further evolution:
 - Multi-modal Al shift, with potential increased volumes of Data to process (Voice, Video)
 - Small Langage Models proliferation, with need for local processing (Device, Edge,..?)
 - Agentic Al rise, with distribution and orchestration of autonomous Al agents
- Additionnal challenges are potentially expected on our networks:
 - Evolution of data traffic, in particular uplink traffic, in both mobile, fixed Home and business networks.
 - Further demand for Low Latency connectivity to provide seamless user experience, with need for traffic optimization and prioritization.
 - Processing and computing capabilities from Edge to Cloud.
 - Data integrity, security and privacy, with intensified cybersecurity threats.
 - Traffic routing mechanisms to determine what model/process to be used to complete specific workload.

Operators should ensure that their networks enable responsible, inclusive and sustainable Al-driven customer experiences and enhance the Al ecosystem to capture value. Network evolutions could be needed and should be anticipated.

Traffic observatory

What is Al traffic ? Text/Image-based GenAl apps



- Looks like any other http traffic
- Unencrypted Service name (SNI) allows App identification
- Front-end / Back-end traffic is intra or inter-DC traffic
- Generally not observable, from IAP probes
- Example: OpenAl API
- Gen Al-generated traffic is similar to other traffic types, lacking unique characteristics for identification.
- Therefore, the proposal is to observe the traffic of a list of Apps known as heavily relying on GenAl



Traffic Observatory proposal

- Methods/criteria used to identify Apps:
 - Total Time Spent by Users
 - Number of App Users
 - Video usage (
- List should be flexible
- Metrics to monitor: Total volume, UL volume, DL volume, # of subscribers.

Conclusions

Telco will play a key role in Al delivery

It is uncertain the evolution of telco network required

Visibility of Al traffic is needed to plan the network evolution

Traffic observatory could provide this visibility



