



CELTIC-NEXT

Pitch of

the Project Proposal



17th of March 2023, Paris

**Metaverse Ready Cloud-native
5GCore-as-a-Service**

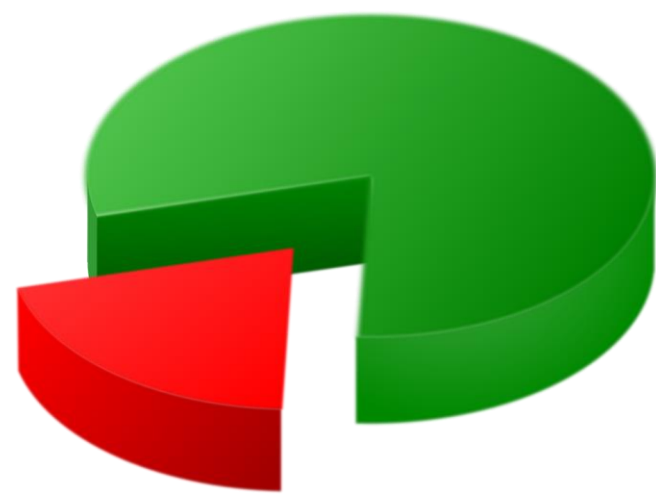


OpenFabric

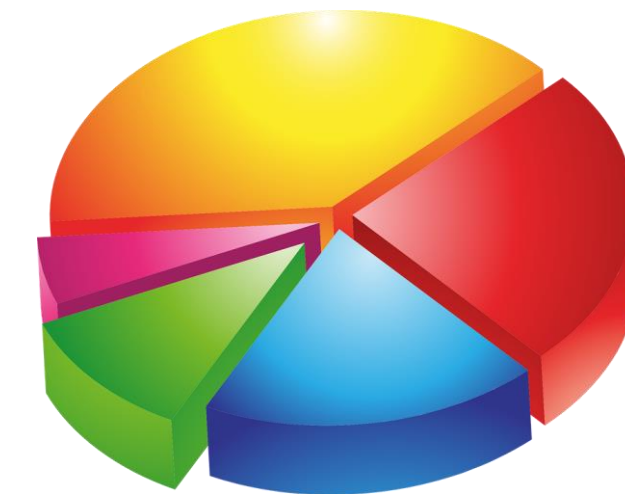
Mahmoud Hashemi
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The industry is ready for Private 5G Networks

According to a recent survey performed by Nokia and ABI Research over 1000 companies from a variety of industries:



%90 consider Private 5G networks as part of their mission critical control and communications network upgrade



%38 will use Private 5G networks as their primary technology to support their mission critical applications

Metaverse applications can be found across key industries

BBC

Conjoined twins separated with the help of virtual reality



PA MEDIA

By Shiona McCallum

Technology reporter

Brazilian twins who were joined at the head have been successfully separated with the help of virtual reality.

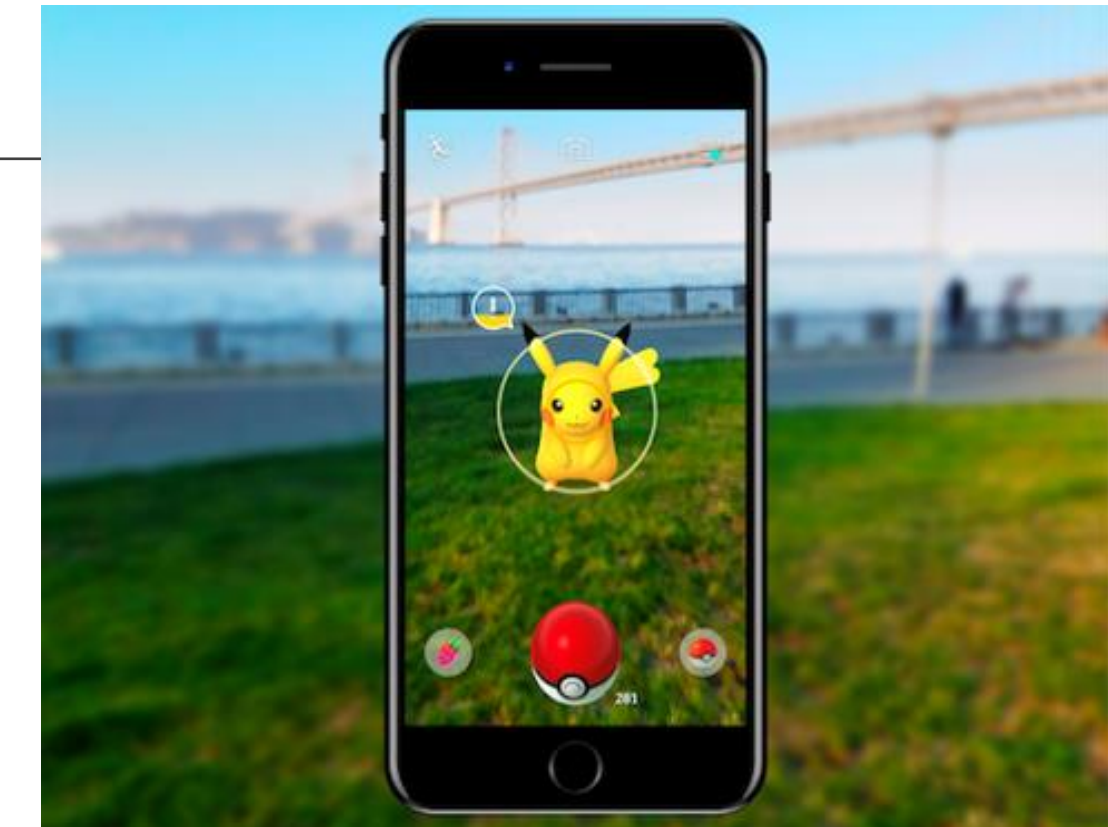
Three-year-olds Bernardo and Arthur Lima underwent surgeries in Rio de Janeiro, with direction from Great Ormond Street Hospital in London.

The teams spent months trialling techniques using virtual reality projections of the twins, based on CT and MRI scans.

Healthcare



Education



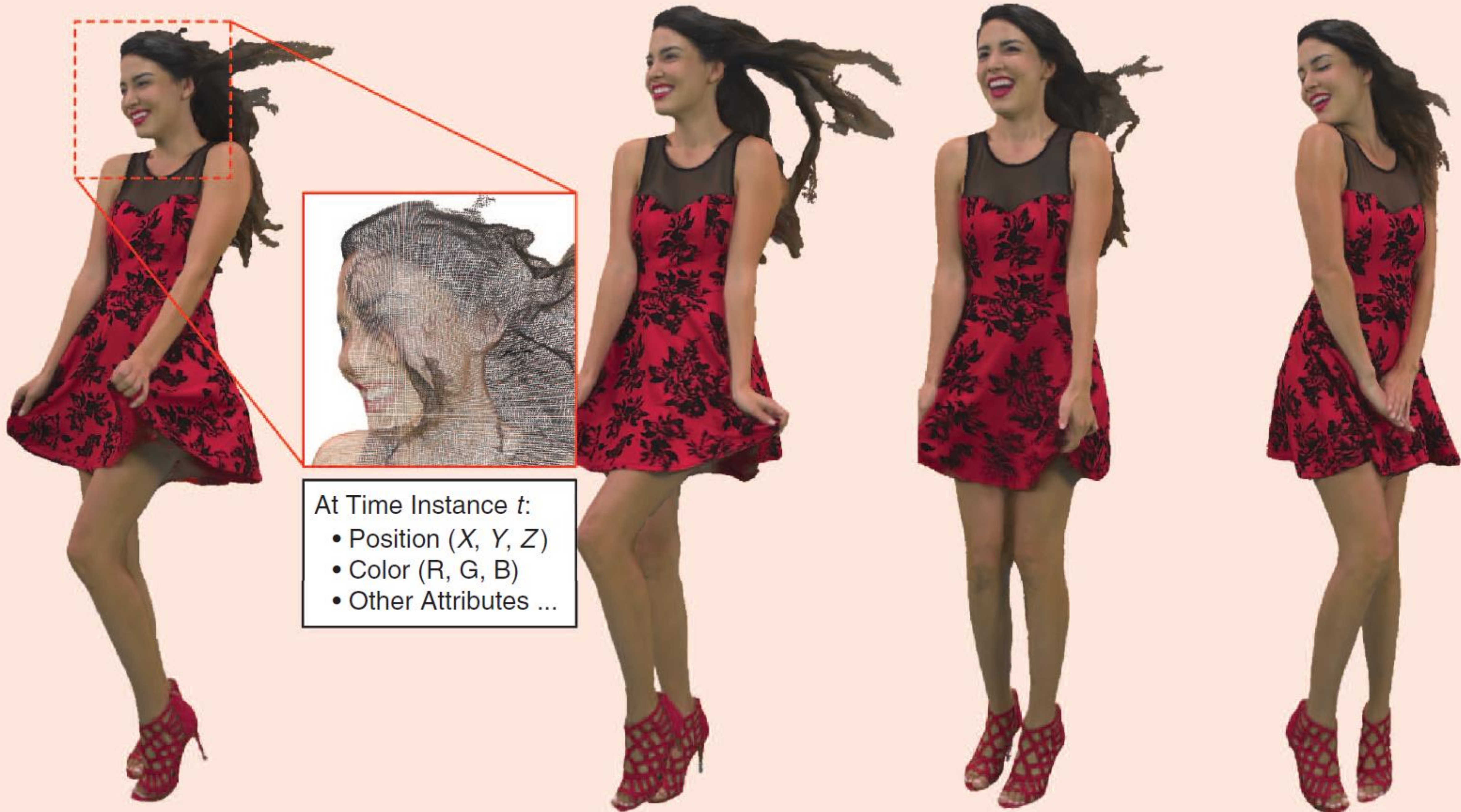
Gaming



Manufacturing



Retail/Banking



At Time Instance t :

- Position (X, Y, Z)
- Color (R, G, B)
- Other Attributes ...

Main Objectives and technological challenges

- End-to-end network slicing and edge computing using ML-based methods for optimum resource allocation and improved QoE that meet the throughput and latency requirements of the Metaverse
- Predictive QoS system for a hybrid terrestrial and non-terrestrial network
- Efficient point cloud compression and QoE management for the Metaverse
- Efficient distributed security
- Metaverse use cases: Banking, Tele-operated vehicles, and Education

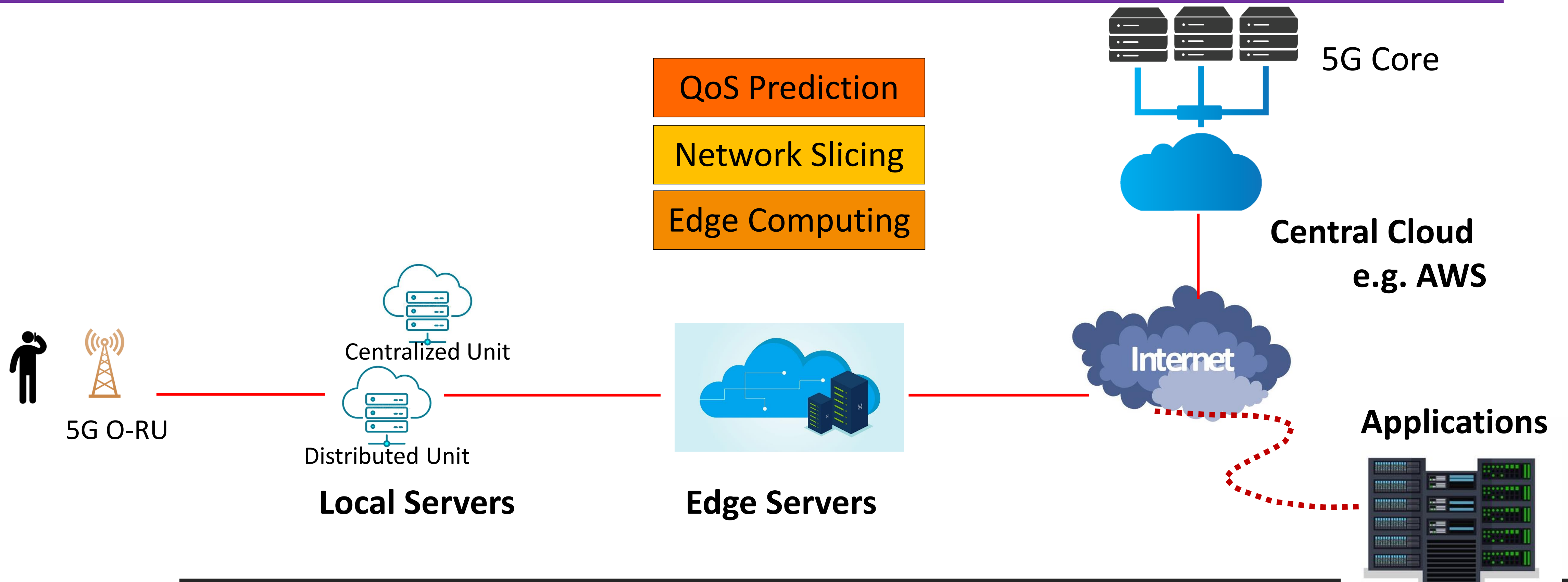
Project architecture- Phase 1 (18 months)



Technologies Developed in this Project



OpenFabric 5G Platform



Project architecture- Phase 2 (18 months)

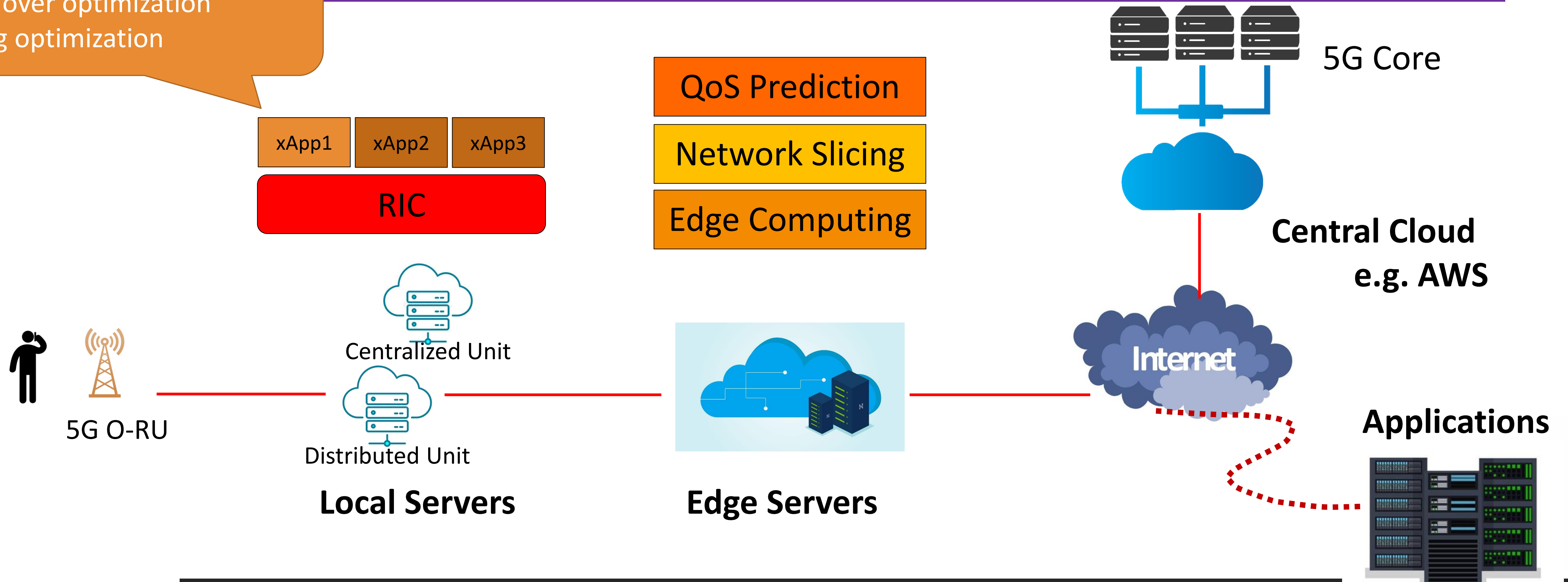


Technologies Developed in this Project



- Radio connection optimization
- Hand over optimization
- Slicing optimization

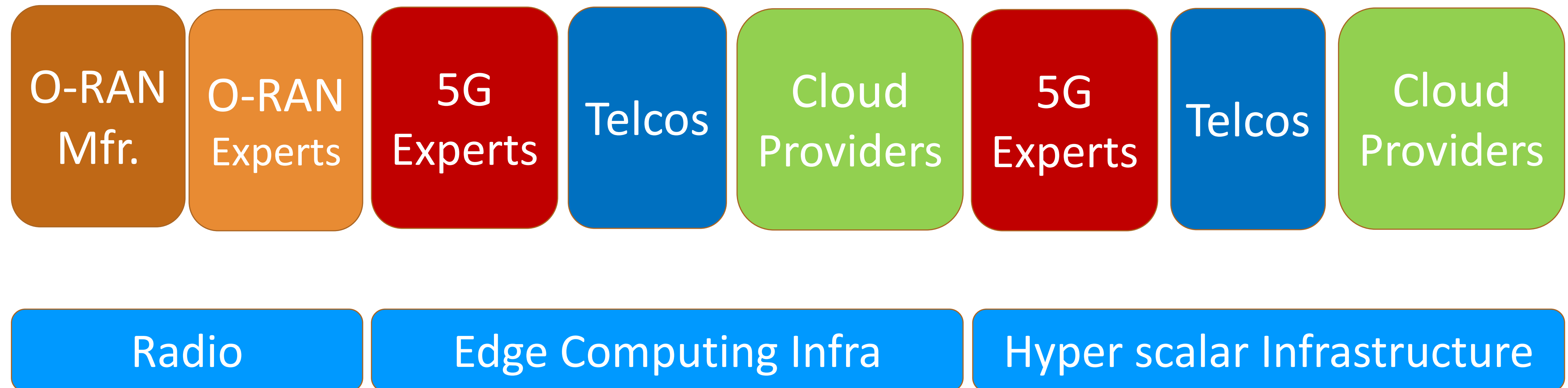
OpenFabric 5G Platform



Existing Partners



Future Partners



Contact Info

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Presentation available via:



22th March 14 CET

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