



CELTIC-NEXT Launch Event

9th of December 2022

Pitch of the Project Proposal
Metaverse Ready Cloud-native
5GCore-as-a-Service

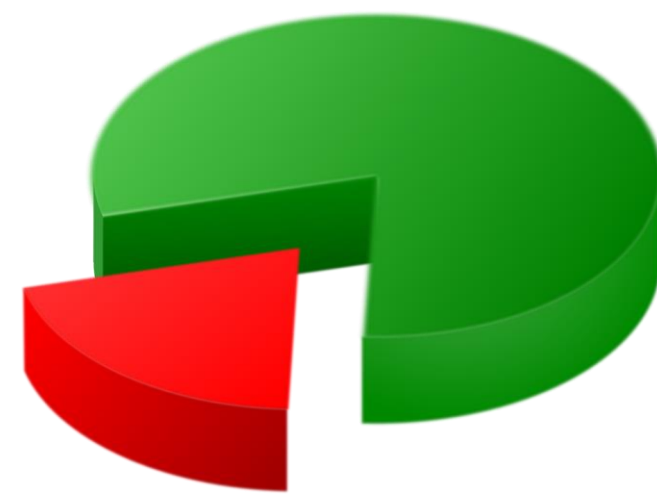


OpenFabric

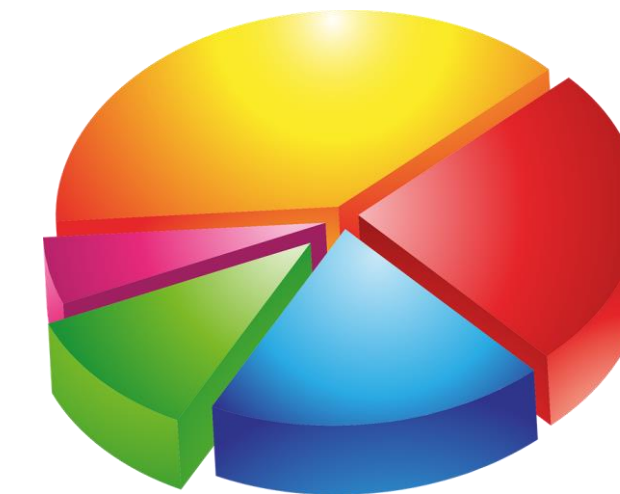
Mahmoud Hashemi
mahmoud@openfabric.net

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:



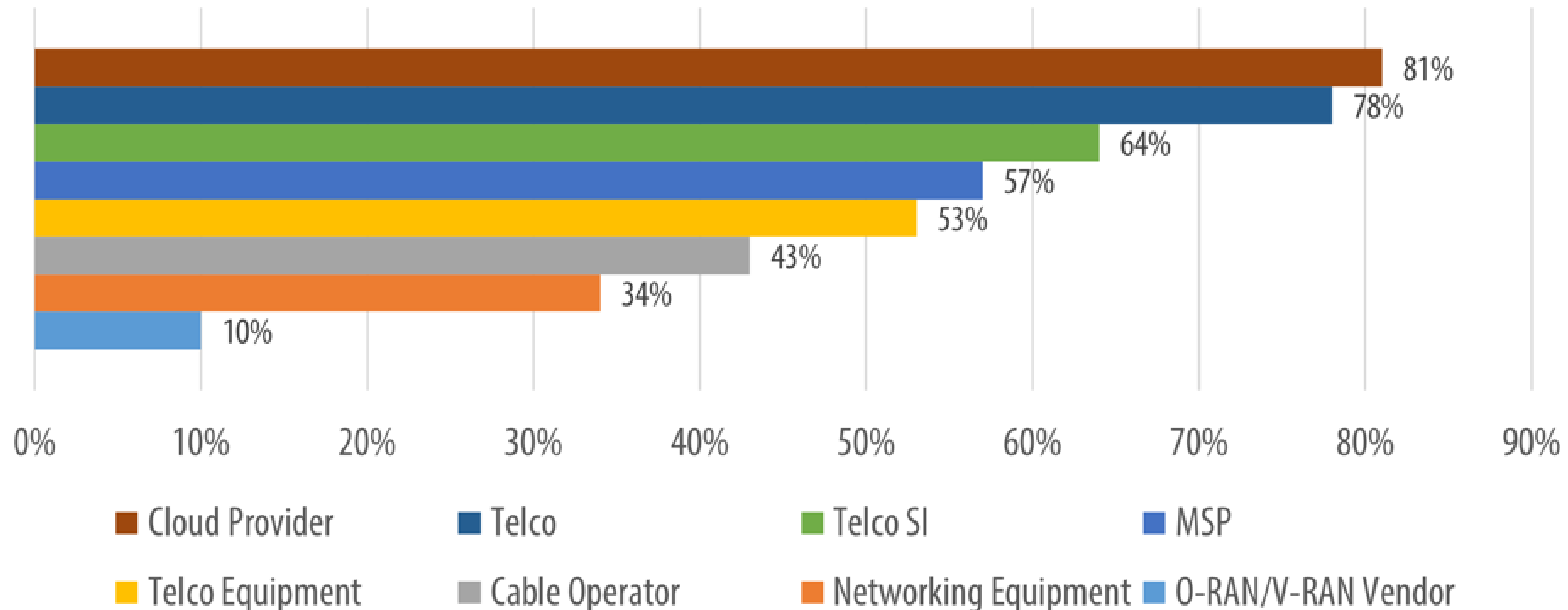
%90 consider Private 5G networks as part of their mission critical control and communications network upgrade



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

Who do you plan to deploy your Private 5G Network with?

techanalysis RESEARCH Vendors Expected To Help with Private 5G Network



Part of the reason is that many organizations are planning to use their private networks as an enabling part of larger computing solutions—especially for things like IoT and edge computing—and not necessarily for standalone telecom-related purposes.

<https://www.forbes.com/sites/bobodonnell/2022/07/14/private-5g-opportunity-or-challenge-for-telcos/?sh=87b2c1143c4c>

Metaverse and Hyper Realistic Avatars



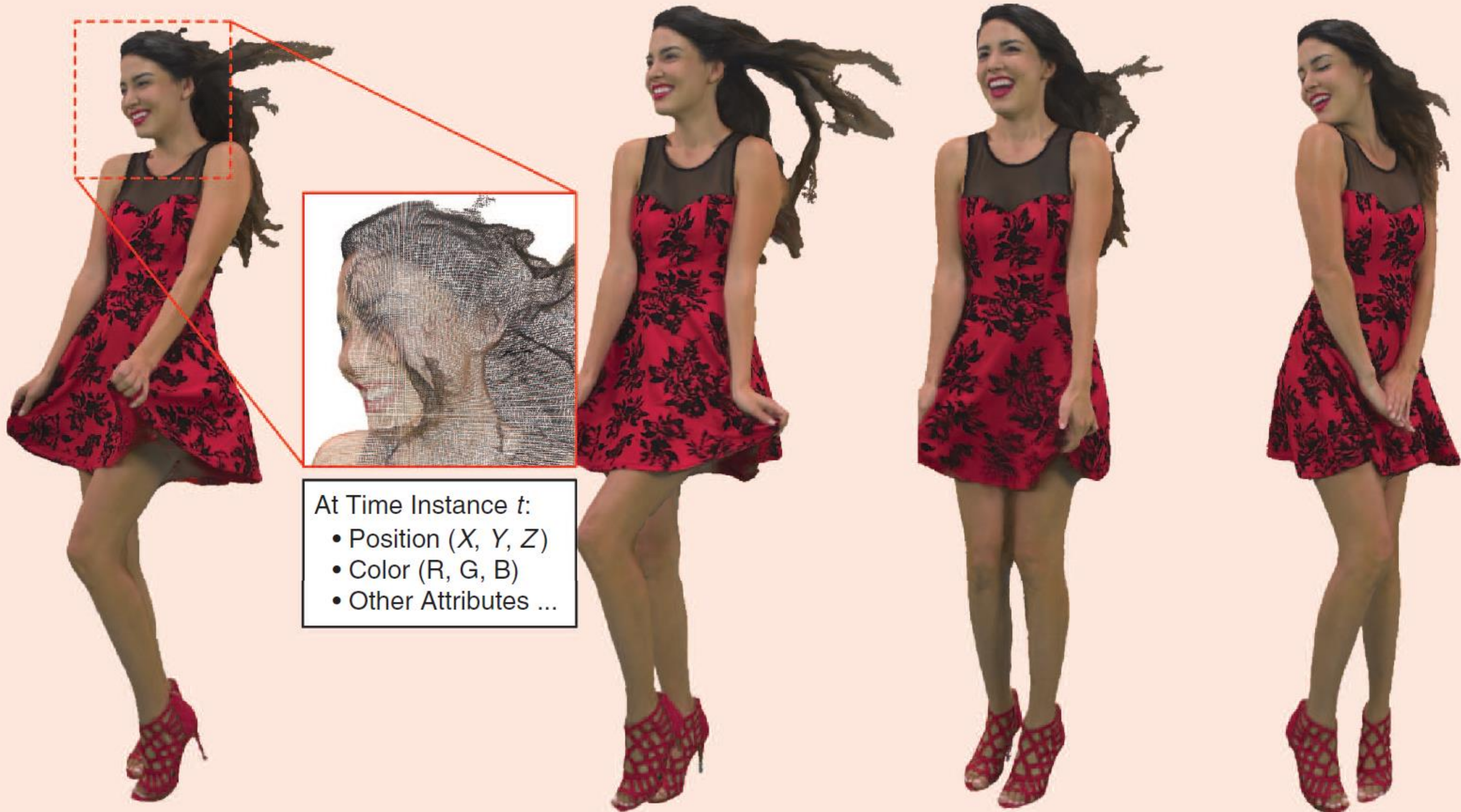
Metaverse and Hyper Realistic Avatars

- Metaverse and hyper realistic avatars provide more emotionally-engaging and immersive experiences to customers.
- One of its applications is for employee onboarding and on the job training
- The global digital human avatar market size is expected to reach USD 527.58 Billion in 2030

<https://www.prnewswire.com/news/emergen-research/>

Point Cloud Compression

- Metaverse, similar to any augmented, virtual and mixed reality experience, requires enormous amounts of data, so it is necessary to improve compression quality and signal processing.
- Point Cloud Compression (PCC) is a method for compressing volumetric visual data.
- A point cloud is a set of individual 3D points, each point having a 3D position but also being able to contain some other attributes such as color, surface normal, etc. Point clouds are more flexible than polygonal mesh when representing non-manifold geometry and could be processed in real-time.



At Time Instance t :

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



OpenFabric



- OpenFabric is a start-up company focused on building a **fully managed, cloud-native** private 5G core platform using **end-to-end open standards and technologies**
- The mission of OpenFabric is to provide an easy to use, secure, and flexible 5G Core-as-a-Service platform designed to help companies exploit the benefits of Private 5G Networking without being absorbed by its technological complexities

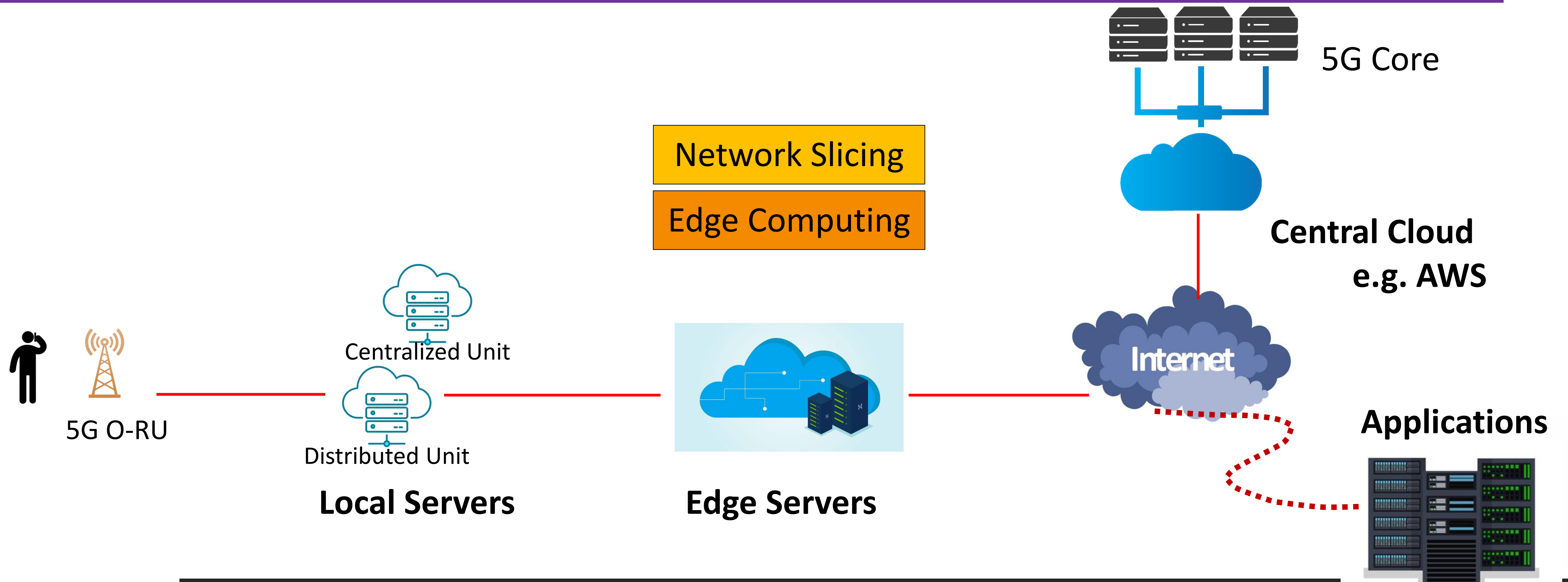
Project architecture- Phase 1 (18 months)



OpenFabric
Patent Pending Technologies



OpenFabric 5G Platform



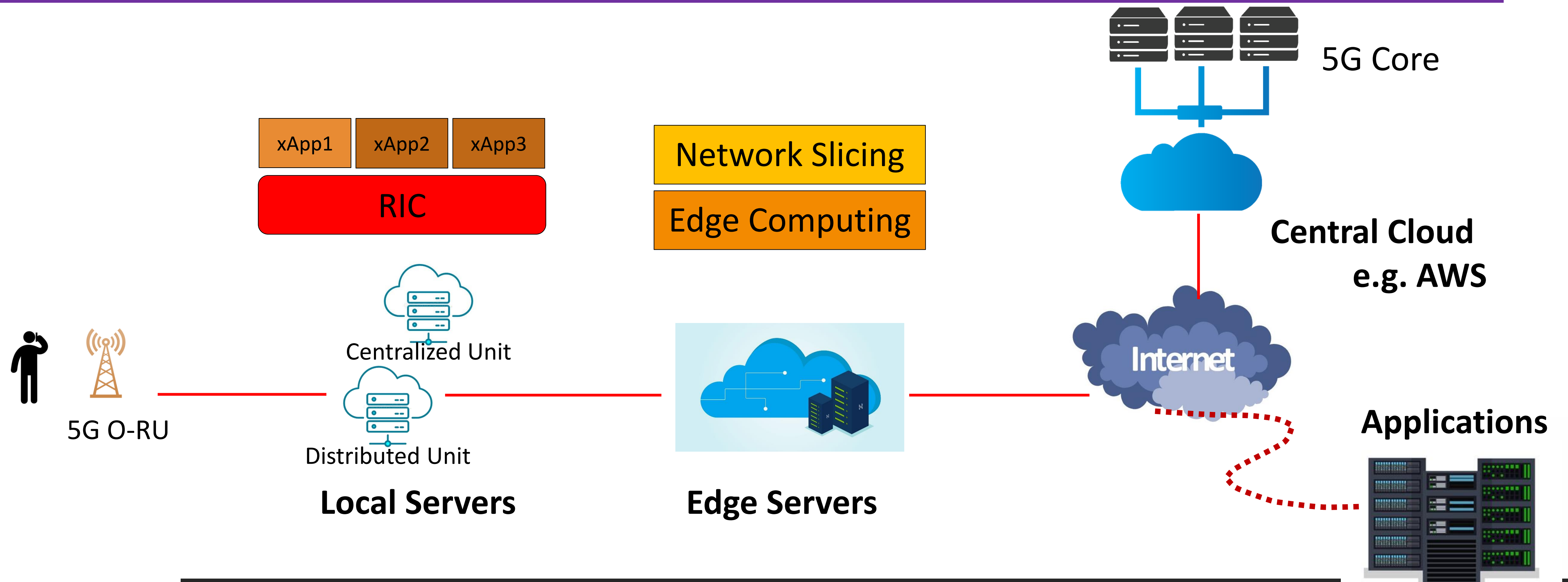
Project architecture- Phase 2 (18 months)



OpenFabric
Patent Pending Technologies



OpenFabric 5G Platform



Main Objectives and technological challenges

- Implement end to end network slicing and edge computing using ML-based methods for optimum resource allocation and improved QoE
- Efficient point cloud compression and QoE management for the Metaverse
- Seamless integration of platform services with enterprise applications and automation

Partners

Current consortium partners:



Contact Info

For more information and for interest to participate please contact:

Mahmoud Hashemi
OpenFabric
mahmoud@openfabric.net
+1 (613) 212-5868
Nova Scotia, Canada



Presentation available via:

