

LFN 5G Super Blueprints

*End to End Solutions across Open Source
Projects*

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 THE **LINUX** FOUNDATION

 LFN **NETWORKING**

 LFN **EDGE**

Vertical Market Adoption of End to End Open Source Software

OPEN NETWORKING, EDGE AND IOT MARKET ADOPTION



Industrial
Manufacturing



Energy (Oil,
Gas Utilities)



Commerce &
Retail



Home



Automotive



Fleet &
Transportation



Logistics



Building
Automation



Cities &
Government



Healthcare



ENTERPRISE NETWORKING

1. Private Networks 5G/LTE
2. Workloads across Multi-clouds
3. End to end visibility and monitoring



SERVICE PROVIDERS

1. Built on end to end open source 5G & edge
2. Developing countries with 5G and edge
3. Global connectivity



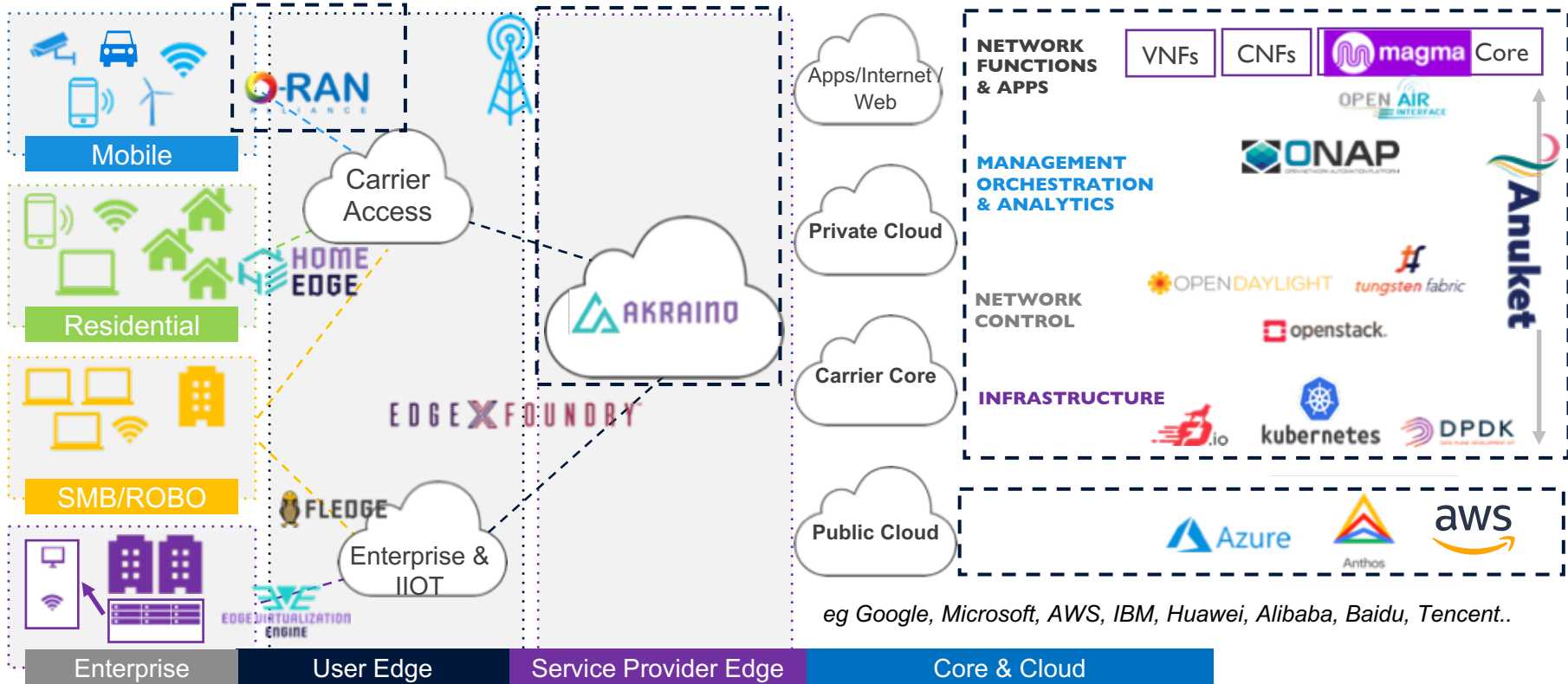
END USERS, GOVERNMENTS

1. Built on Open Source projects
2. Open Solutions and Blueprints
3. Unified Cloud, Enterprise, Telco

5G SUPER BLUEPRINTS BUILT ON END TO END OPEN SOURCE PROJECTS



End to End Open Source Software Collaboration

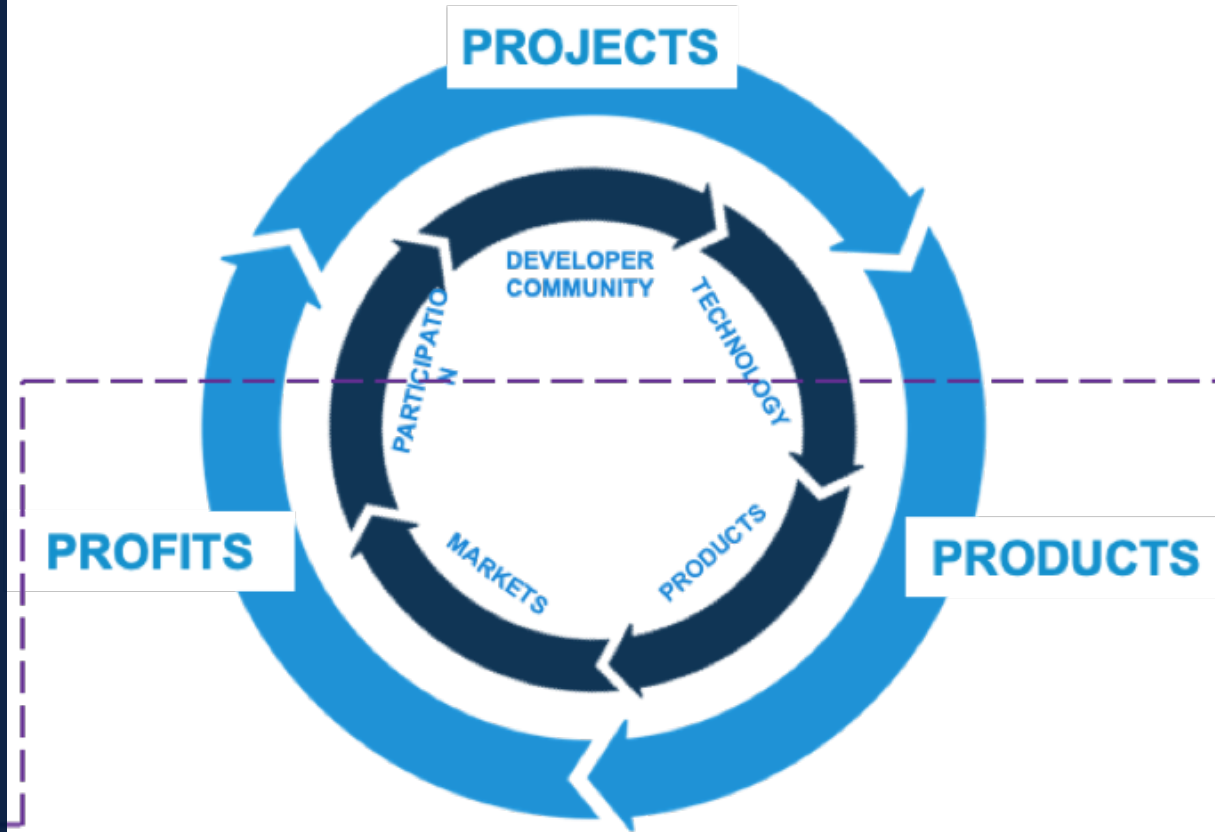


Beyond Code POC to Production

Open Compliance & Verification
Open Interop & Testing
Open Training & Certification

LFN & LF Edge POC (RAN+Edge+Core)

- > 2019 vCO Demo
- > 2020 Cloud Native 5G Call (NFVI/ONAP)
- > 2021 End to End 5G Super Blueprint (Adding RAN, Edge, Open Core)



Leading Open Interop & compliance
LF Networking's Anuket (OPNFV + CNTT)
LF Edge's Akraino Blueprints

LFN Hosted E2E 5G Super Blueprint

[JOIN THIS COMMUNITY/CROSS COMPANY EFFORT NOW!](#)

[Mailing List](#)


[Bi-Weekly Meeting Calendar](#)

[Slack Channel](#)

[Meeting Agenda/Minutes](#)

 **LF NETWORKING** →

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 **CLOUD NATIVE
COMPUTING FOUNDATION** →

 **SOFTWARE
COMMUNITY** →

**End to
End
Super 5G
Blueprint**

← **Cloud Native 5G Demo**

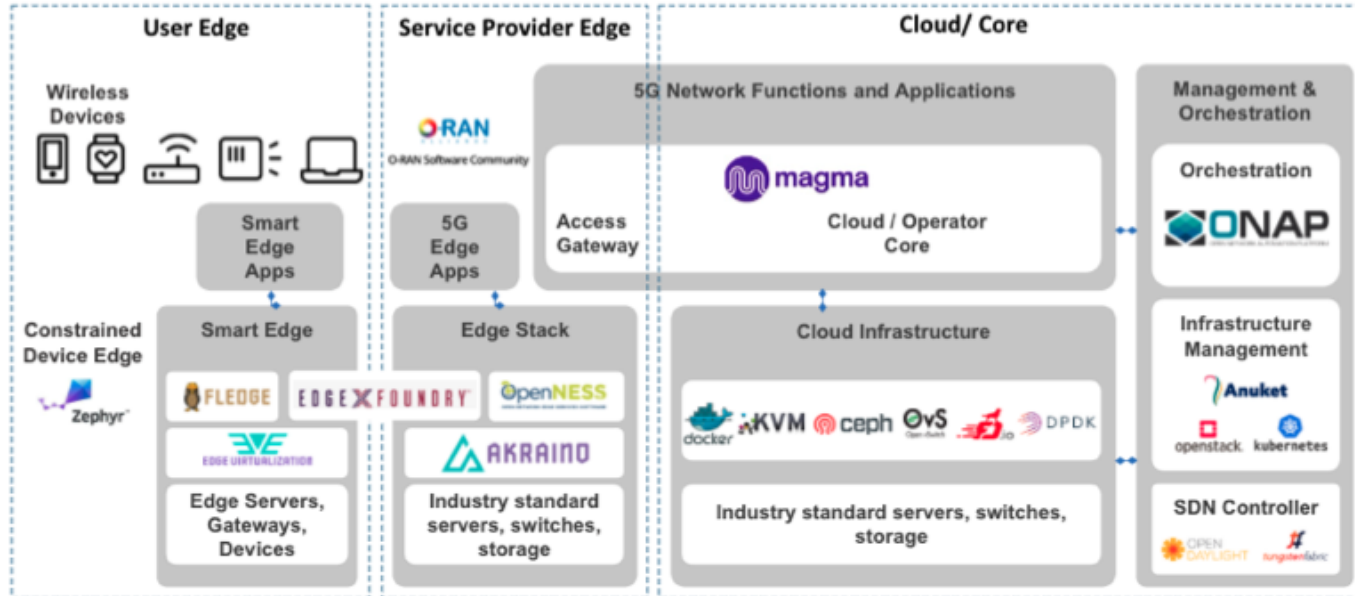
← **Private LTE/5G ICN Akraino**

← **ONAP 5G Use Case**

THIS NEW BLUEPRINT is the community vehicle to collaborate and create end to end 5G solutions

5G Super Blueprint

LF Open Source Component Projects for 5G



Learn more: <https://www.lfnetworking.org/5g-super-blueprint/>

Read the FAQ: <https://wiki.lfnetworking.org/display/LN/5G+Super+Blueprint+FAQ>

Terminology: Blueprint and Use Cases

- › End User driven Initiative (Across multiple segments)
 - › Service Providers (not having a large Dev team), Government (US, EU including Africa), Energy Distribution Operators (DSO) using 5G, Enterprises (IOT, Private Networks)
- › Blueprint Definition (as per existing slide)
 - › Eg 5G SPB, we could envision a few more for other industries using 5G if needed
- › Use Case Definition: (generic)
 - › A specific situation in which a product or service could potentially be used. It outlines, from a user's point of view, a system's behavior as it responds to a request for service
- › LFN 5G SPB Use Cases Examples that requires multiple sub systems to work together
 - › (True end user services) - enhanced Mobile Broadband, Voice Service, URLLC Services, Fixed Wireless Access, Private Network Service, Massive Machine Type Communications mMTC, Grid Monitoring Awareness (for LF Energy and Distribution systems)
 - › (Internal Enablers of services) – Network Slicing, MEC
- › SPB Integration Plan (phased approach) connects project software – pre release together and allows use cases to be tested across projects. (including critical path for project roadmaps)
 - › As per the suggested roadmap slides following this

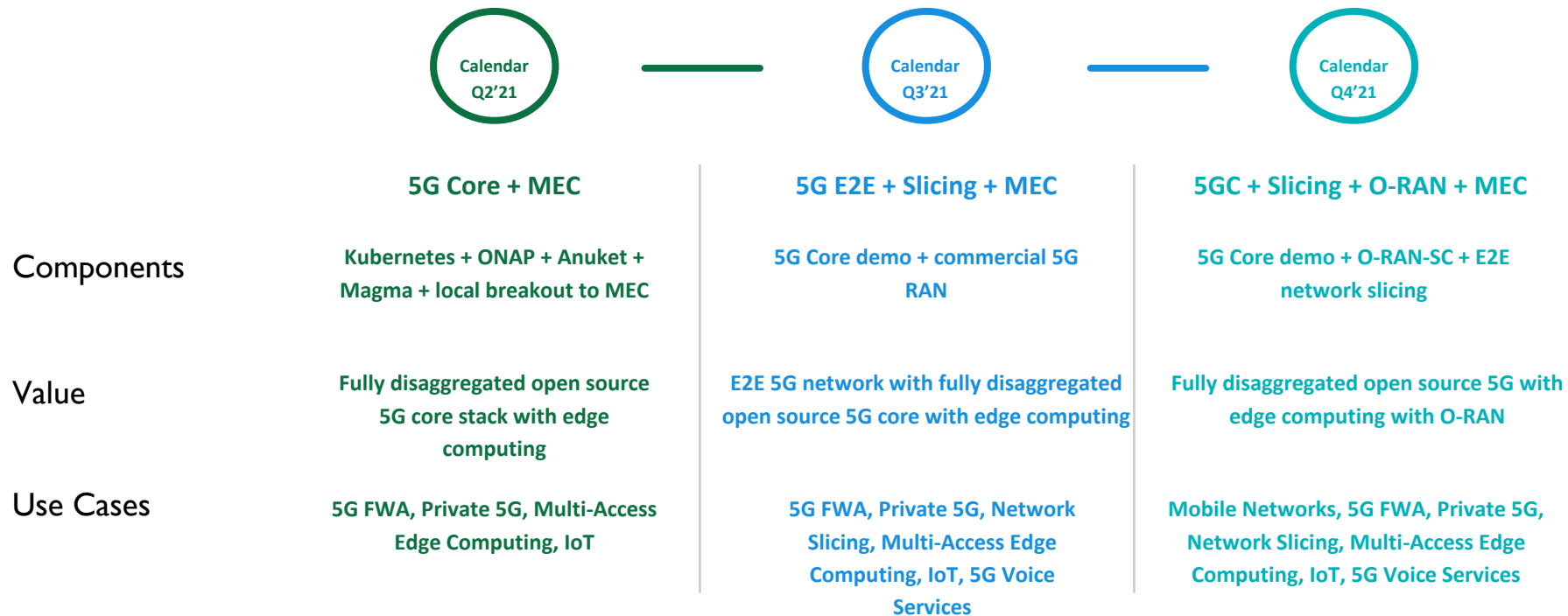
What is a Super Blueprint?

- › Community built, integrated, tested, maintained and deployable (Declarative Configuration)
- › Use Case Based
- › Fully Integrated End to End Solution (CI / CD)
- › Proven and Tested by Community
- › Community Life Cycle Support
- › Mandatory security and conformance testing
- › Documentation
- › Community Lab & Validation
- › Liaison with other communities (standards orgs and other projects/foundations within the Linux Foundation)
- › Robust Commercial Ecosystem providing solutions, services, and software for the blueprint

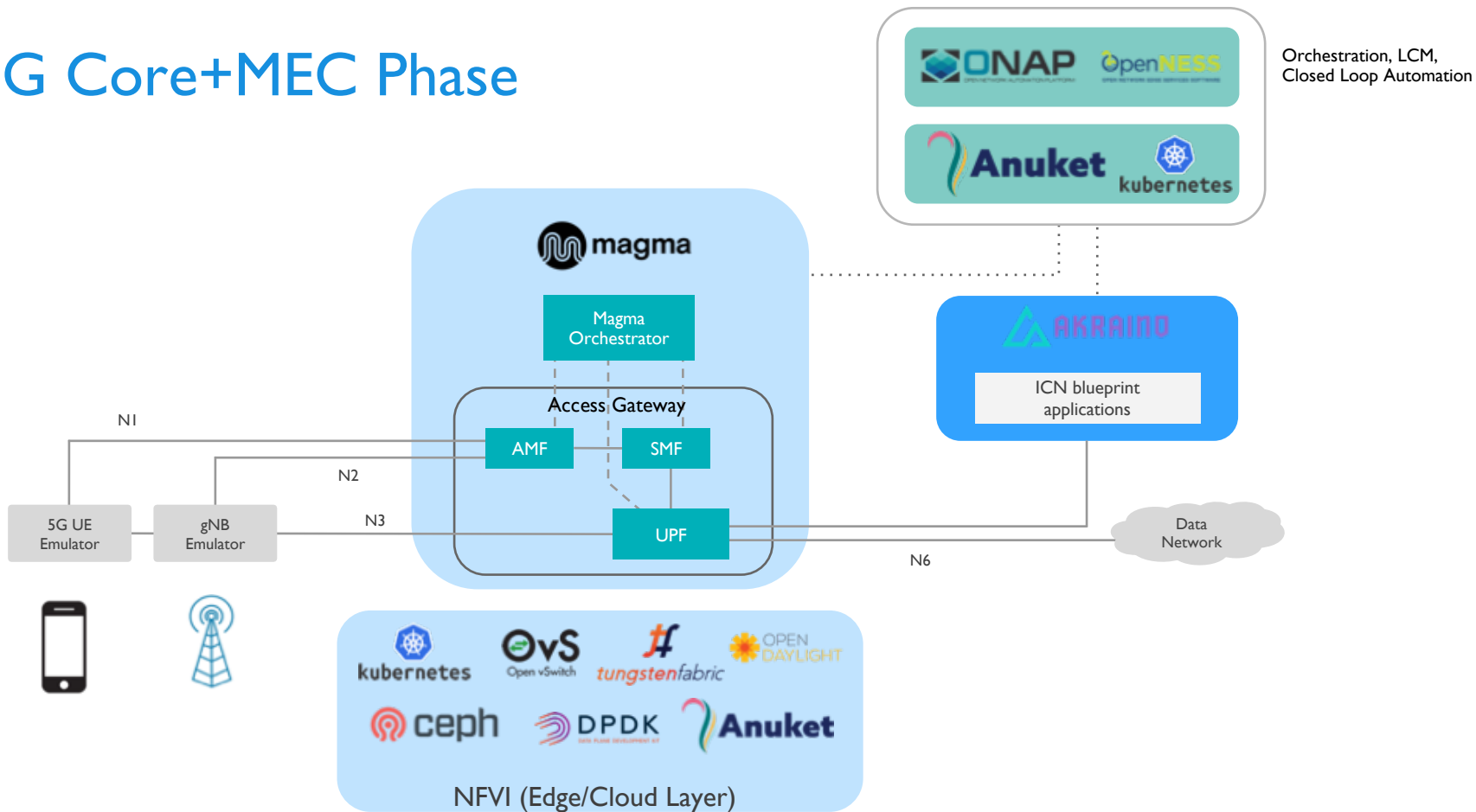


5G Super Blueprint

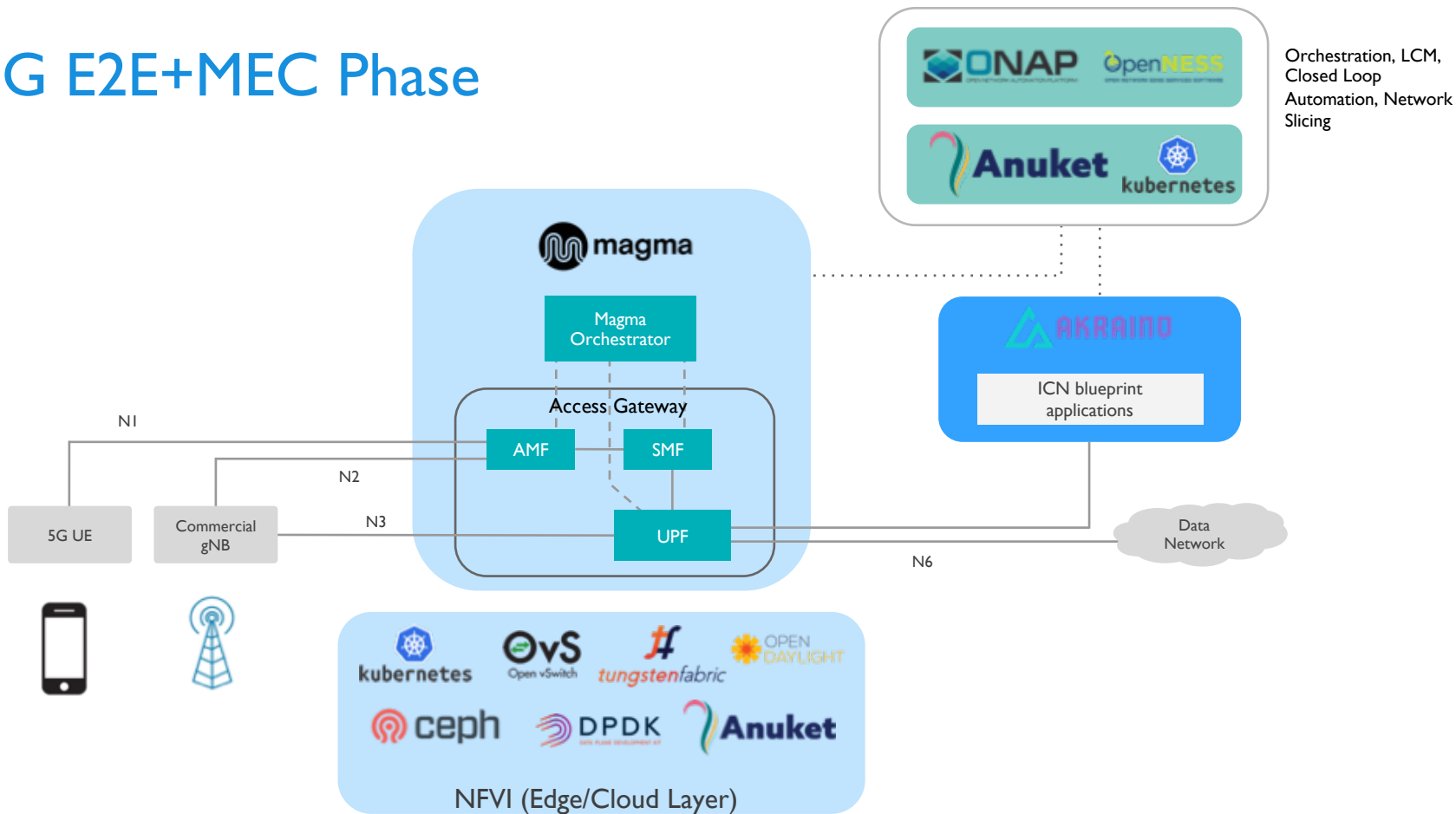
Overall Roadmap, building on production ready projects



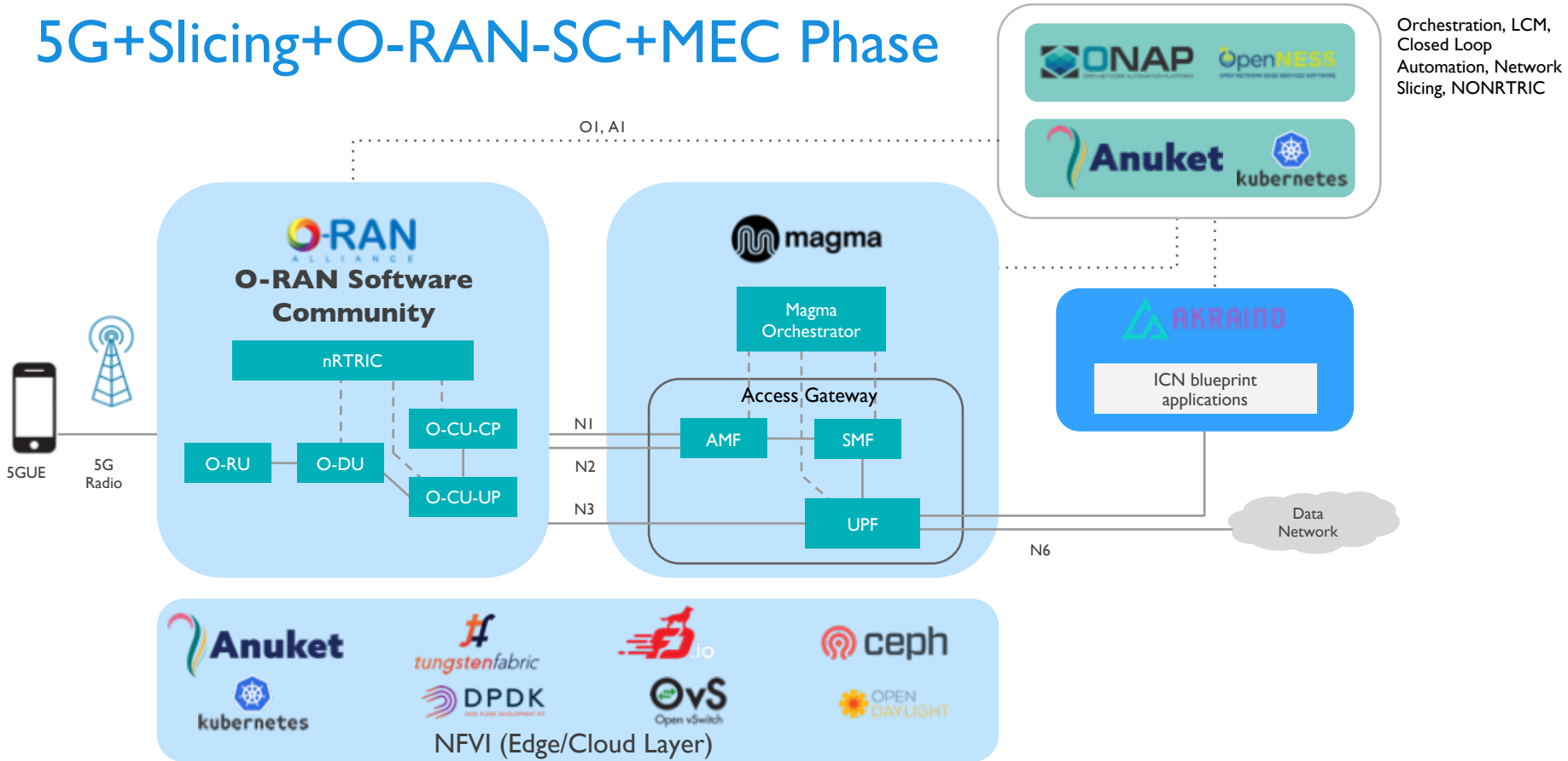
5G Core+MEC Phase



5G E2E+MEC Phase



5G+Slicing+O-RAN-SC+MEC Phase



Orchestration, LCM,
Closed Loop
Automation, Network
Slicing, NONRTRIC

NFVI (Edge/Cloud Layer)

Next steps

1. Continue to facilitate Inter-Project technical deep dives to align roadmaps and releases
2. Provide increased program management support to help create integration across projects including plans for Demos at Open Networking and Edge Summit (LA, Oct 2021)
3. Work on Community life cycle management for Blueprints

www.linuxfoundation.org

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