



Experimentation at Scale in an Operational Environment
should be an integral part of
our strategy and plan for 5G and Next G

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5G and Next G are very important infrastructures for our society

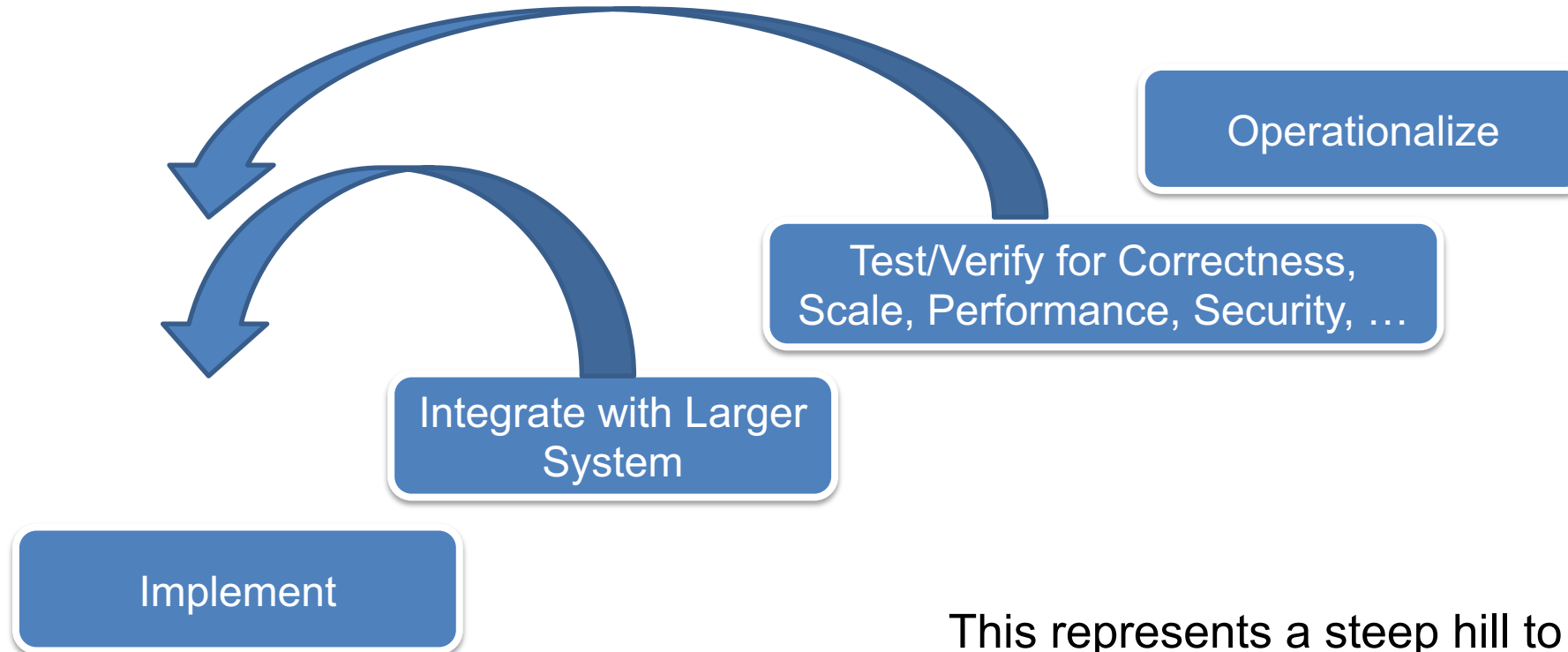
Securing 5G and Next G is very important and represents a big challenge

Excellent group of researchers with very good problem formulations and innovative ideas to address them

Empowering researchers to have real impact with their ideas



Impact
Practice of Networking



This represents a steep hill to climb

We cannot expect every researcher to climb this hill on her own



Ideas

Empowering researchers to have real impact with their ideas



Impact
Practice of Networking

Build experimental infrastructure where
researchers can experiment
at scale in an operational environment

Operationalization

Larger System

Implementation

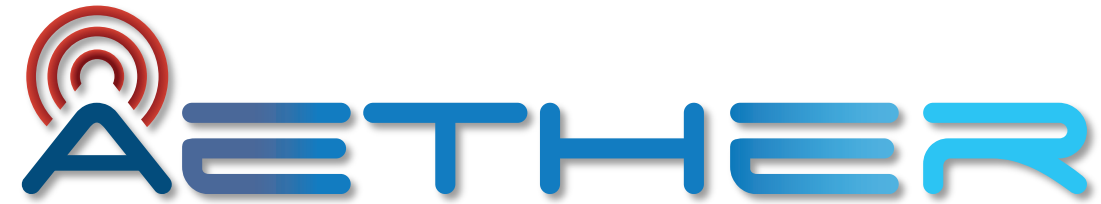


Ideas

But there is another challenge:

Mobile cellular networks have been vertically integrated proprietary and based on complex standards

Good News: 5G networks are adopting disaggregation, software defined, and open source creating unprecedented opportunities for researchers if we grab them



Open Source 4G/5G Connected EdgeCloud as a Service

There are other open source components becoming available for 5G

Learn more about Aether



Larry Peterson
Keynote tomorrow

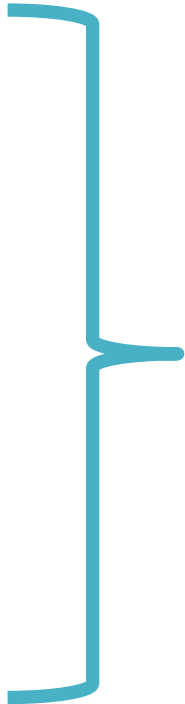
<https://www.opennetworking.org/aether/>

Everything Being Disaggregated, Containerized, Open Sourced

Radio Access Network

Mobile Core

Network Fabric



Control and Data Planes

Aether has been operational since December '19

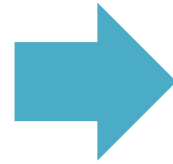
Initial operational network has Openflow-programmable edge clouds



Lowering the Barriers to Secure 5G and Next G with a platform like Aether



Ideas



Impact
Practice of Networking

Opportunity: you can add your idea to any part of the system or replace anything and demonstrate promise of your ideas in an operational setting

RAN

Mobile Core

Network Fabric

Edge Platform
& Apps

End to end