5G Connected Edge Cloud for Industry 4.0 Transformation

Aether Management Platform

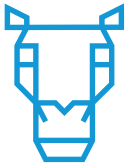
– Operationalizing Disaggregated Systems –

Larry Peterson
Open Networking Foundation

2020

Managed 4G/5G Edge Cloud for Enterprises

An ONF Open Source Project

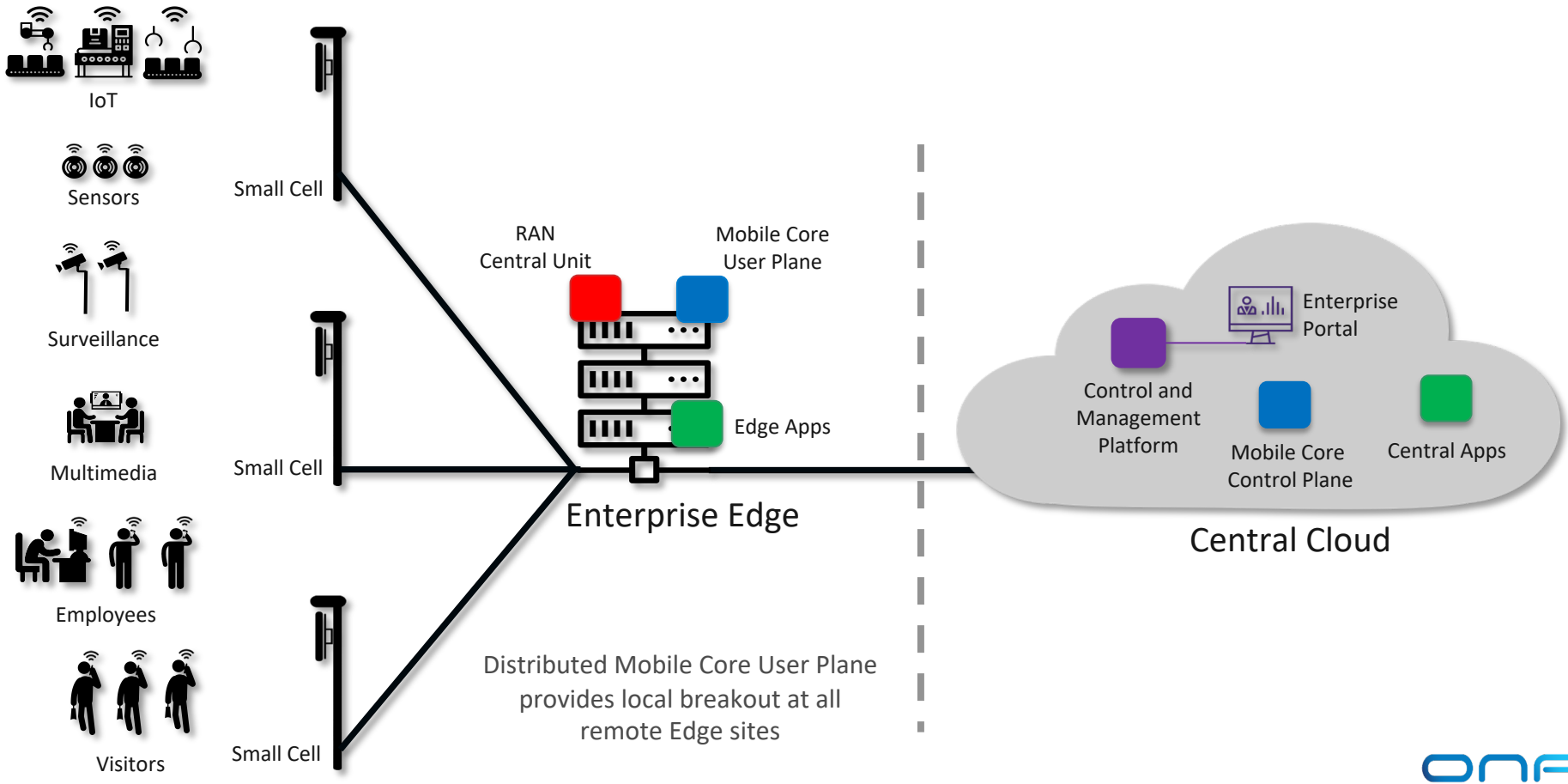


PRONTO

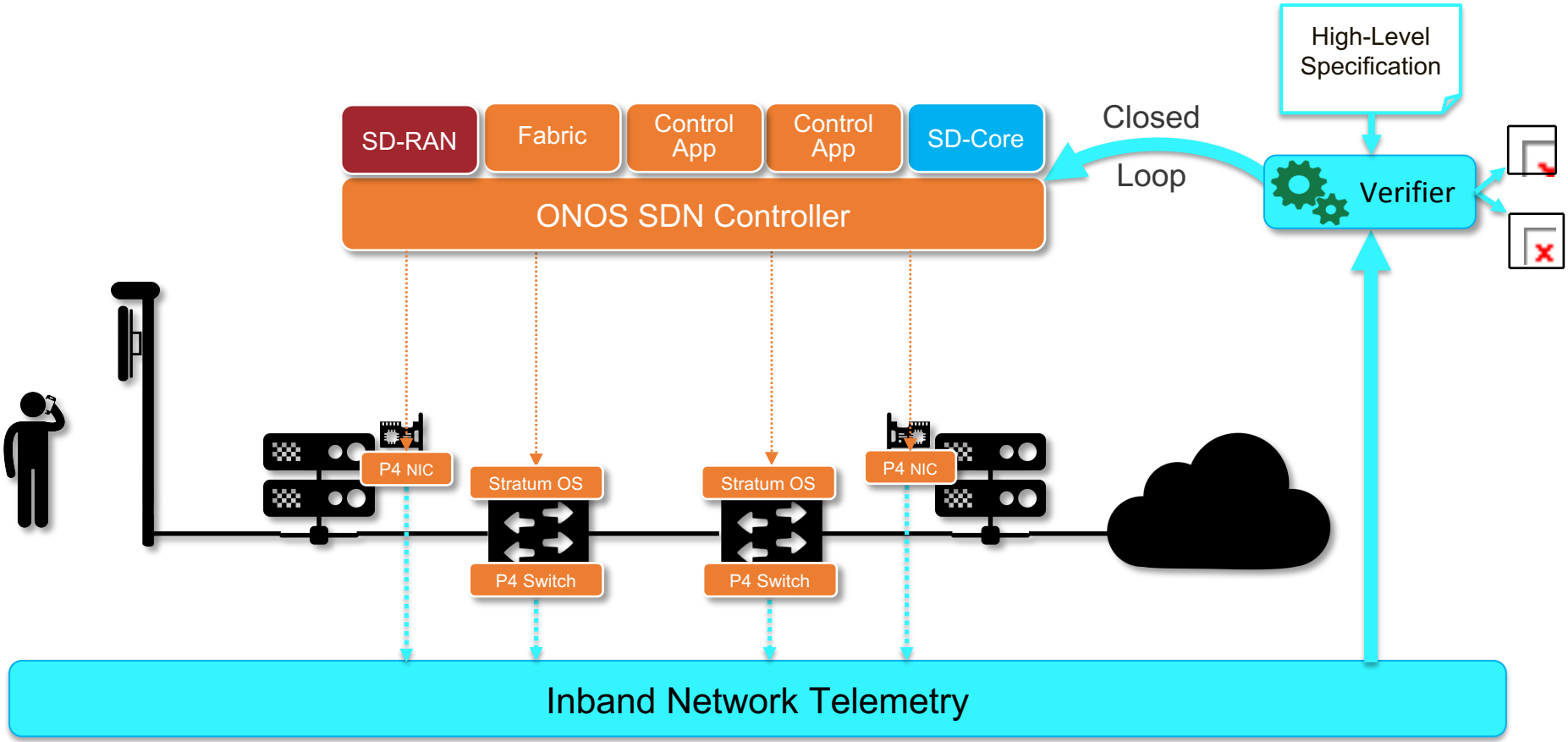
Securing the Internet Using Verifiable Closed-Loop Control

A DARPA Research Project: Stanford, Cornell, Princeton, ONF

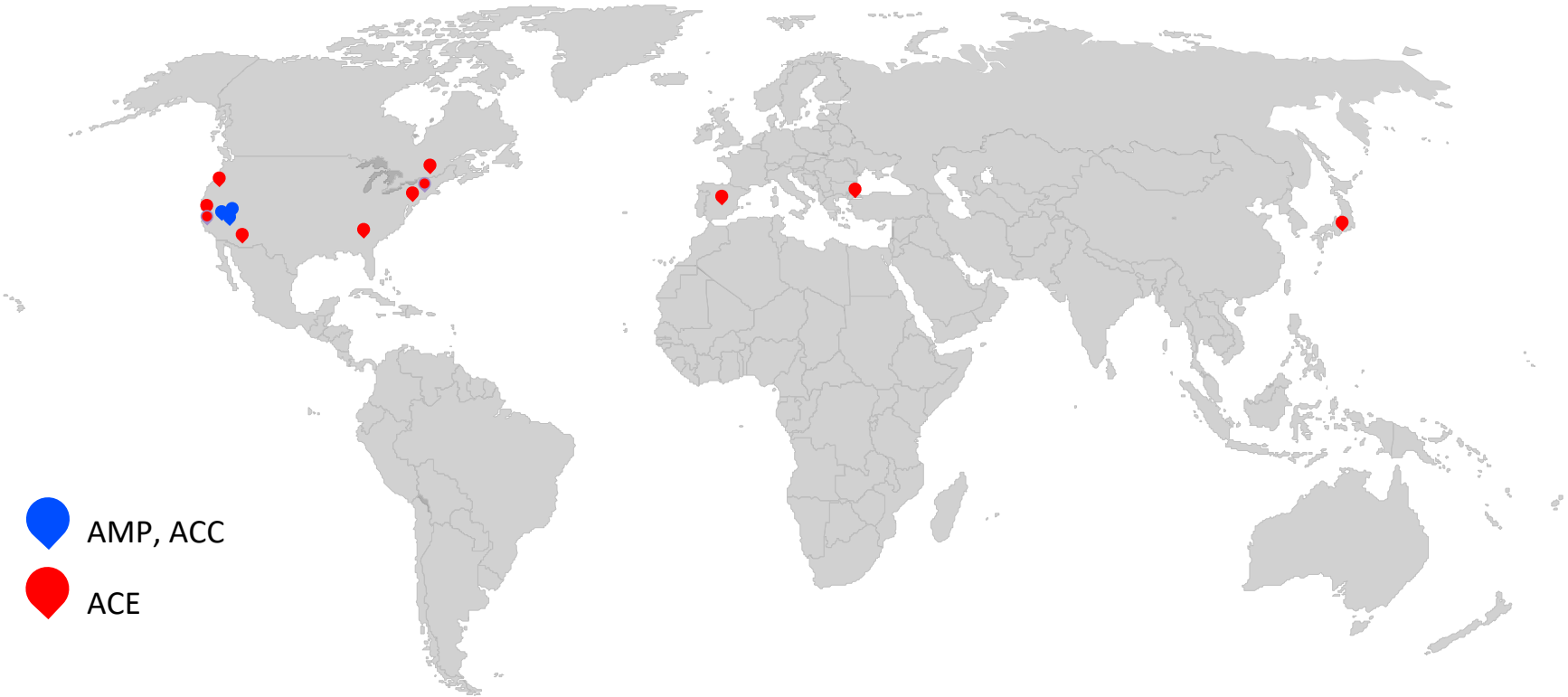
Aether Overview



Pronto Overview



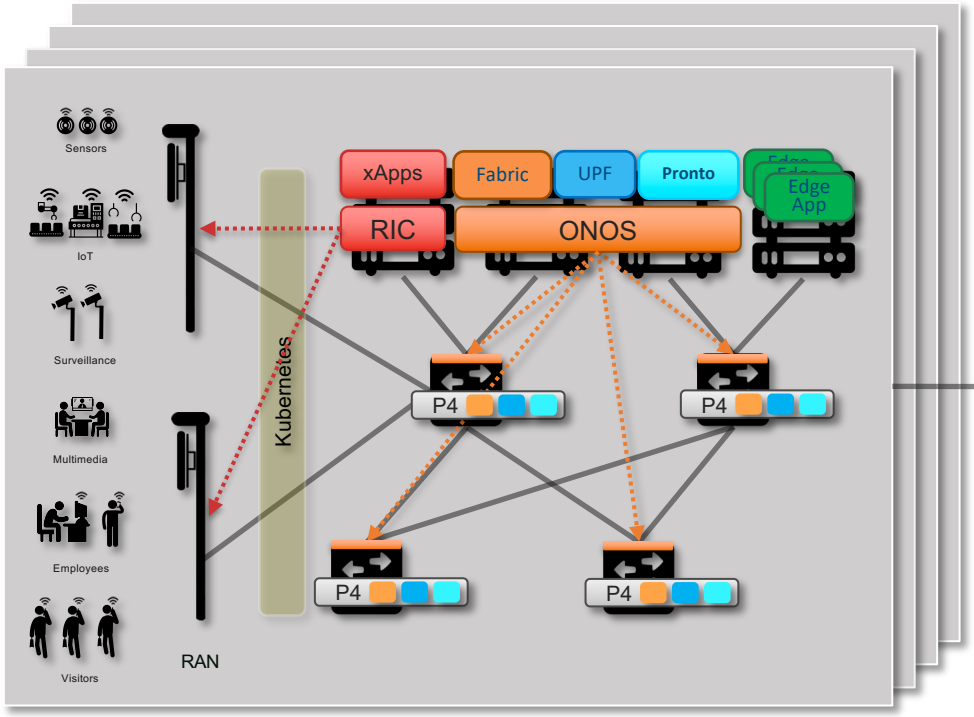
Aether Is Operational



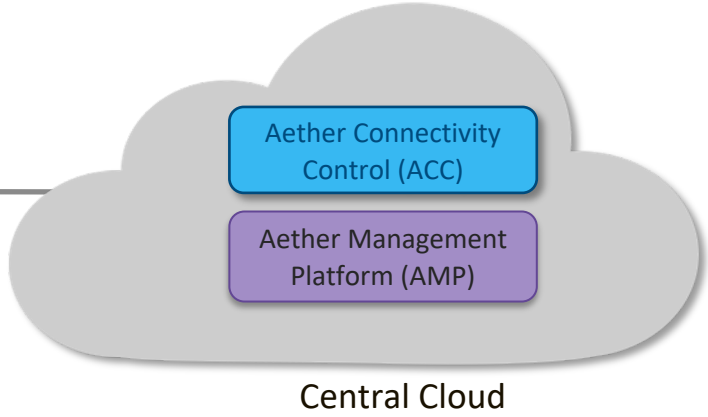
Aether Components

SDN Substrate
SD-Core (User/Control Plane)
Verifiable Closed-Loop Control
SD-RAN
Edge Apps

AMP Operationalizes



Aether Connected Edge (ACE)



Central Cloud

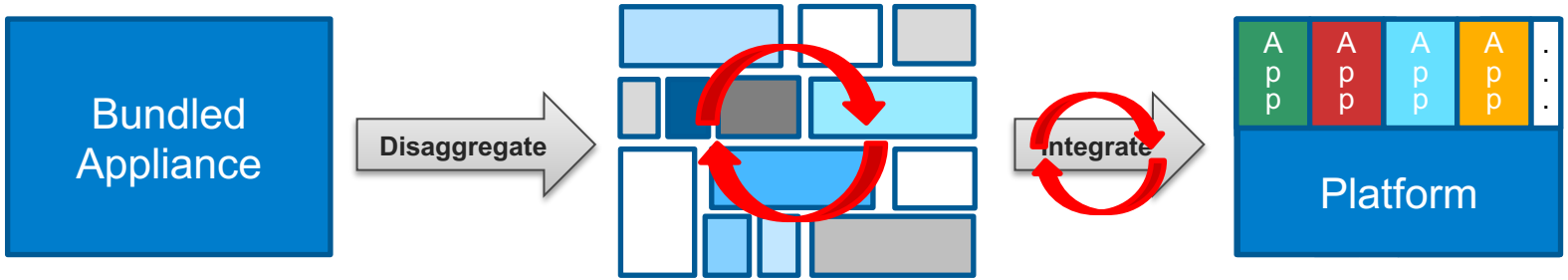
Disruptor's Dilemma

Disaggregate to Catalyze Innovation

→ Value proposition of open networking and SDN

Integrate to Facilitate Adoption

→ Requirement for operational deployment



Closed Point-Solution ⟶ ***Open Extensible Solution***

Disruptor's Dilemma

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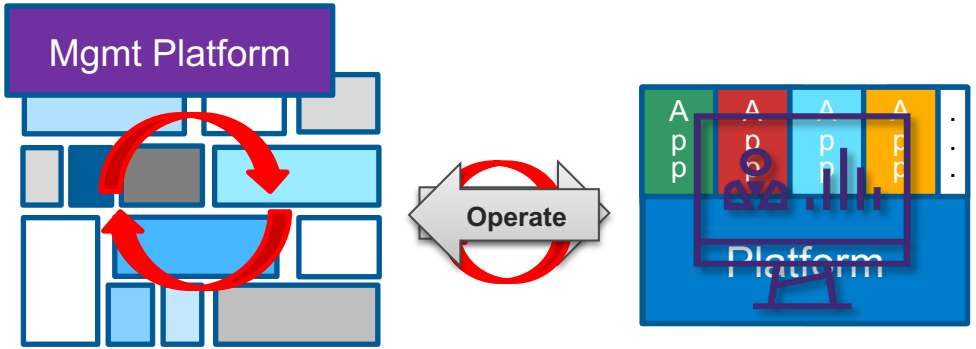

Continuous Innovation | Continuous Integration | Continuous Deployment | Continuous Operation

Disruptor's Dilemma

Disaggregate to Catalyze Innovation

→ Value proposition of open networking and SDN

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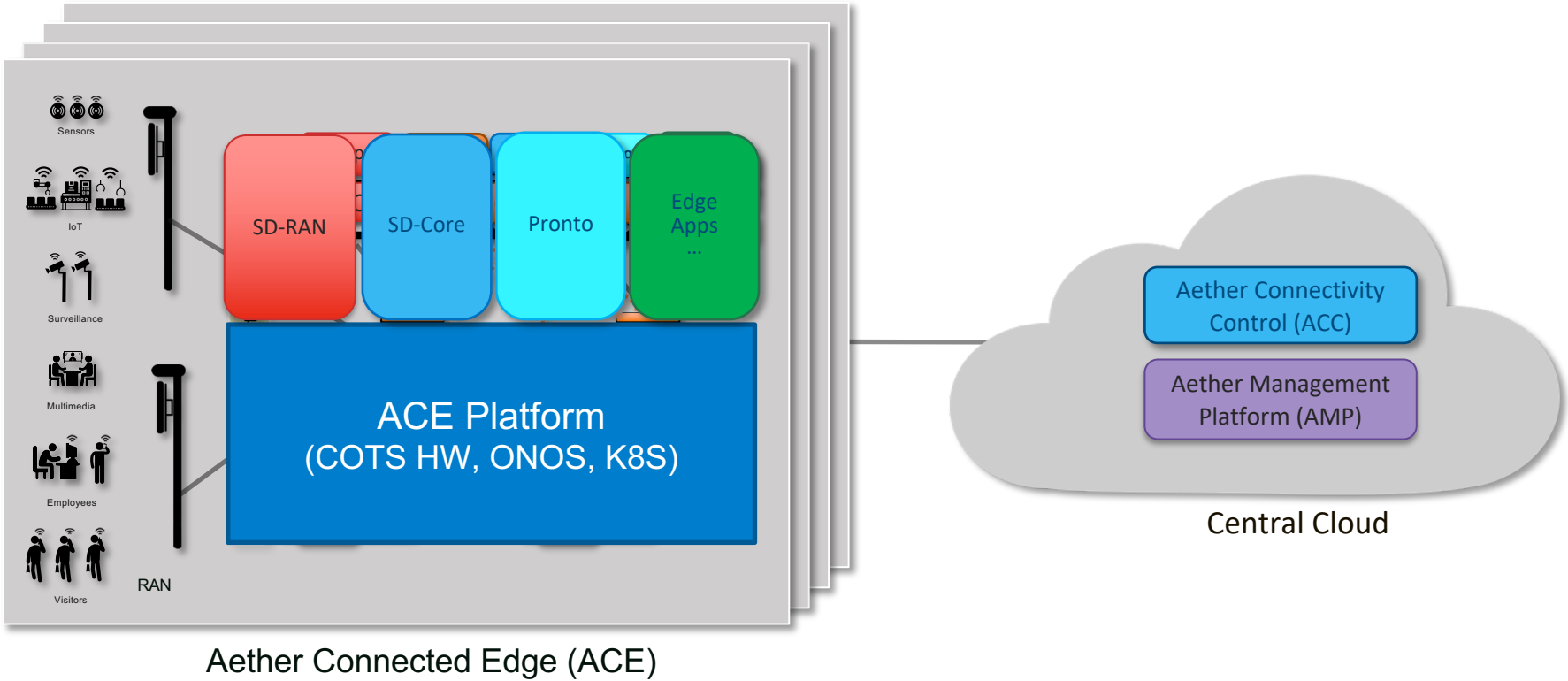
→ Requirement for operational deployment

Our goal is to sustain the innovate/deploy/operate cycle

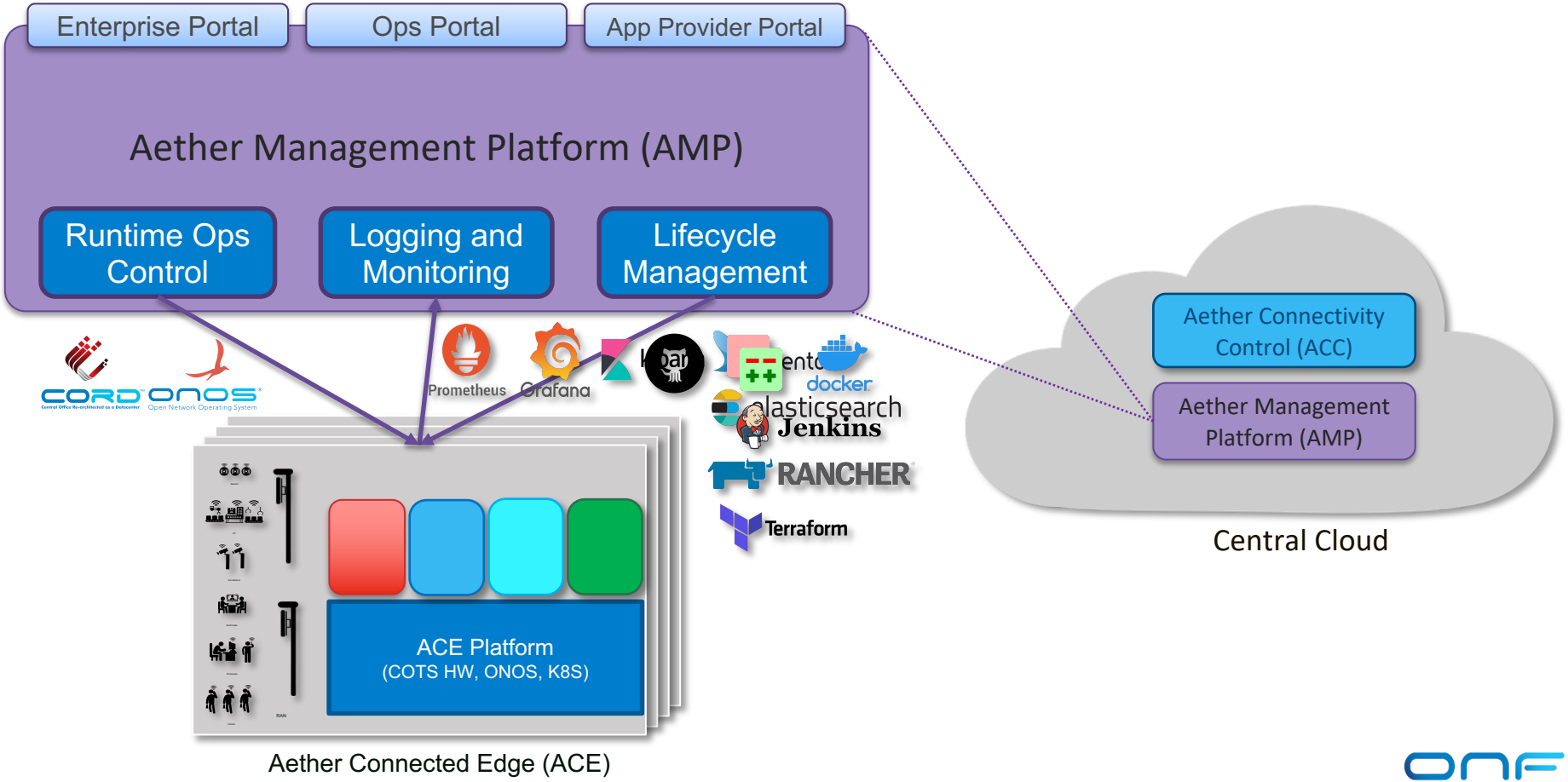
→ Build extensible/evolvable systems (not just modular point solutions)

→ Democratize the operationalization of disaggregated components

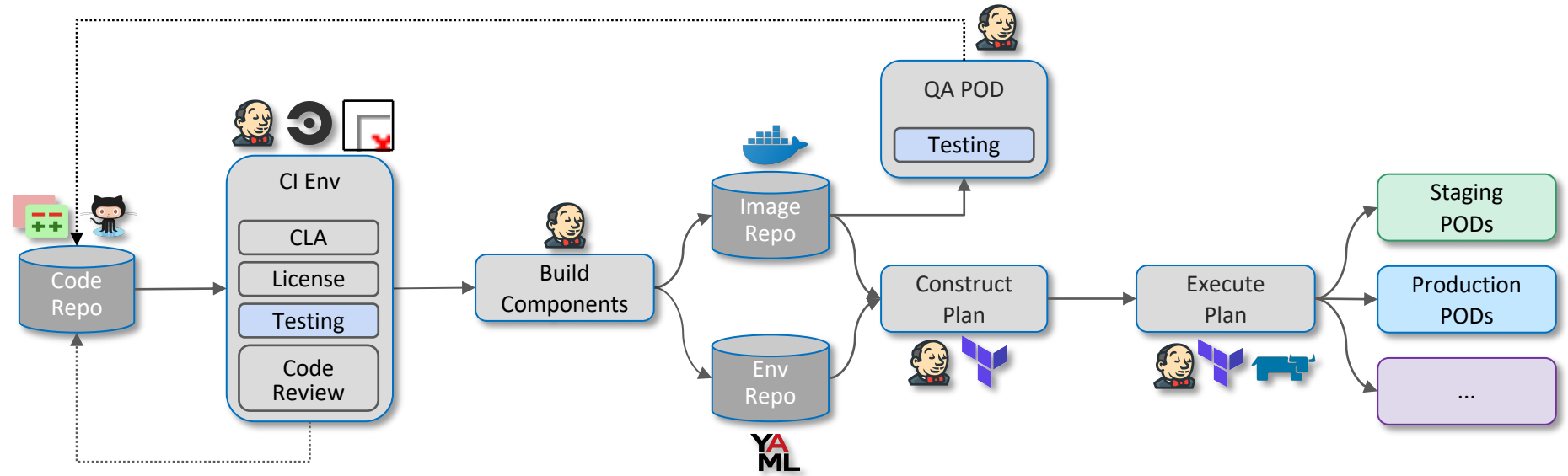
Aether Components



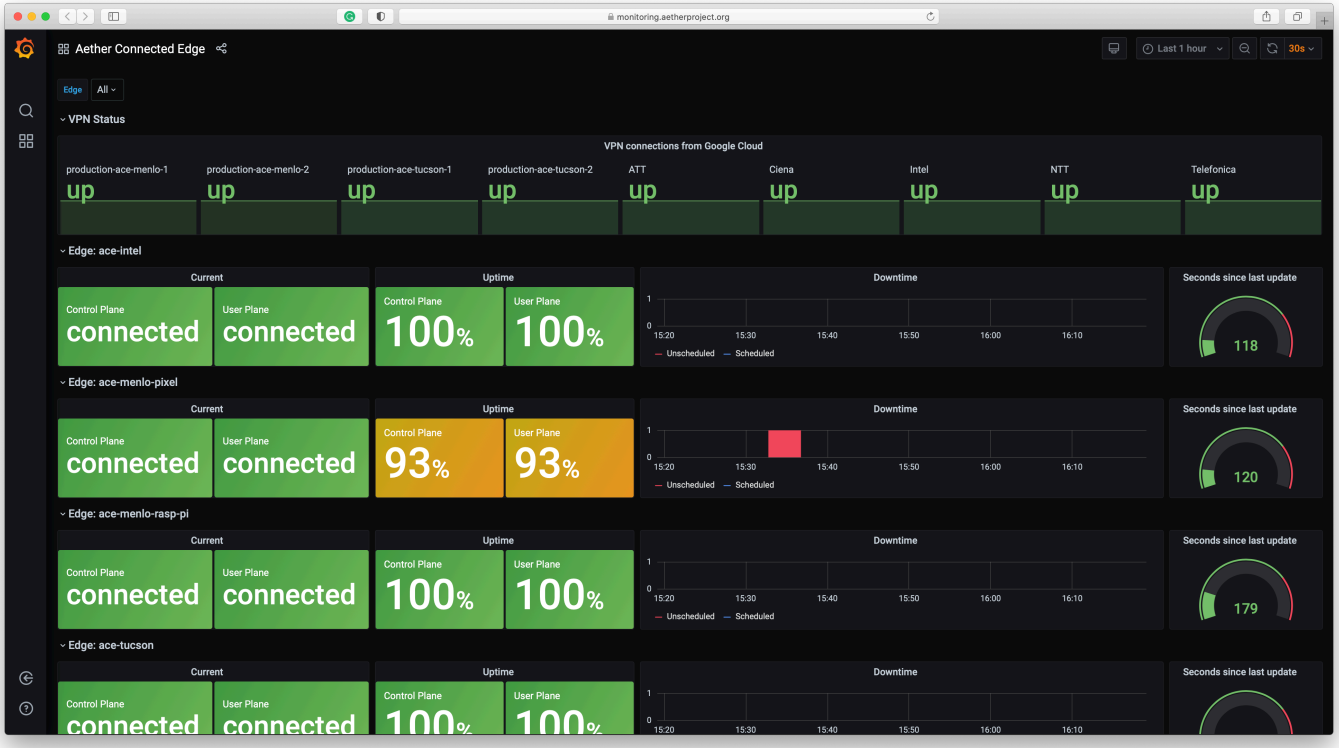
Aether Management Platform



Lifecycle Management: CI/CD Pipeline



Monitoring Dashboard



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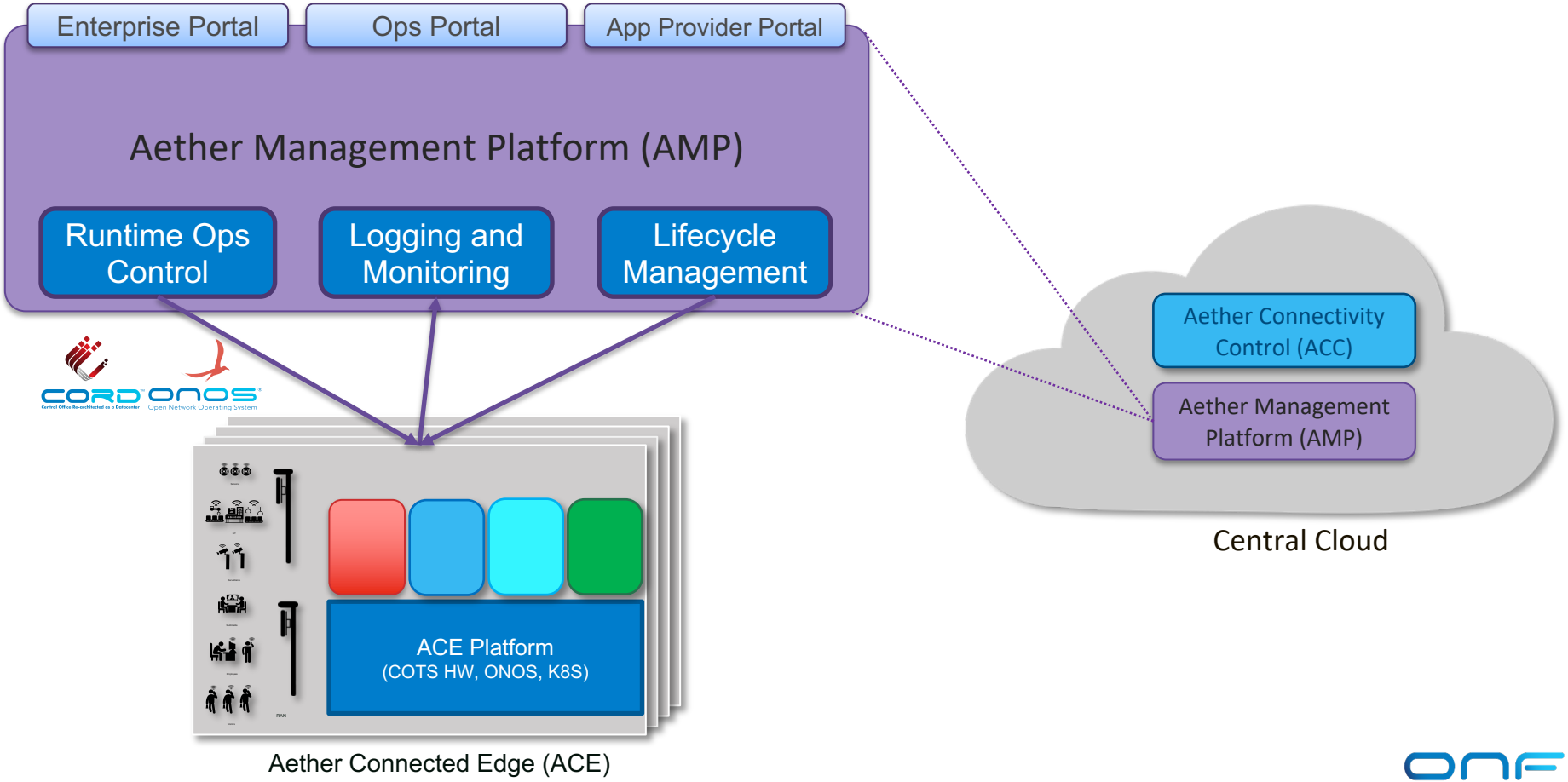
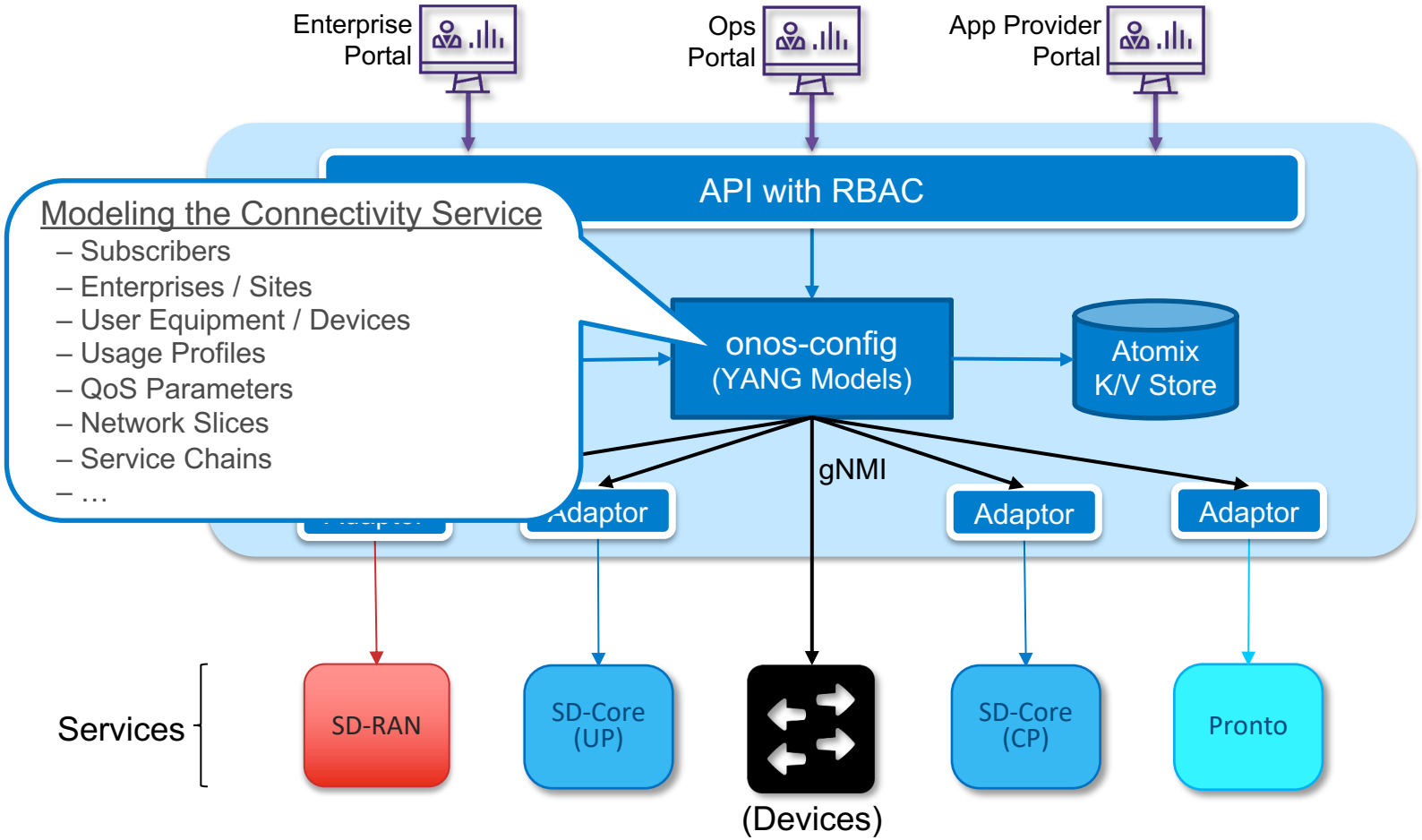


Runtime Operations Control



An Invitation to Join Us

Enterprises

- → Explore ACE deployments for a POCs or trials

Ecosystem Partners

- → Integrate your IoT/ML platforms & apps into Aether
- → Port Aether to your hardware/software platform

University Campuses

- → Deploy ACE for your research and campus automation

Open Source Developers

- → Collaborate to realize Aether's full potential

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Thank You

https://aetherproject.org

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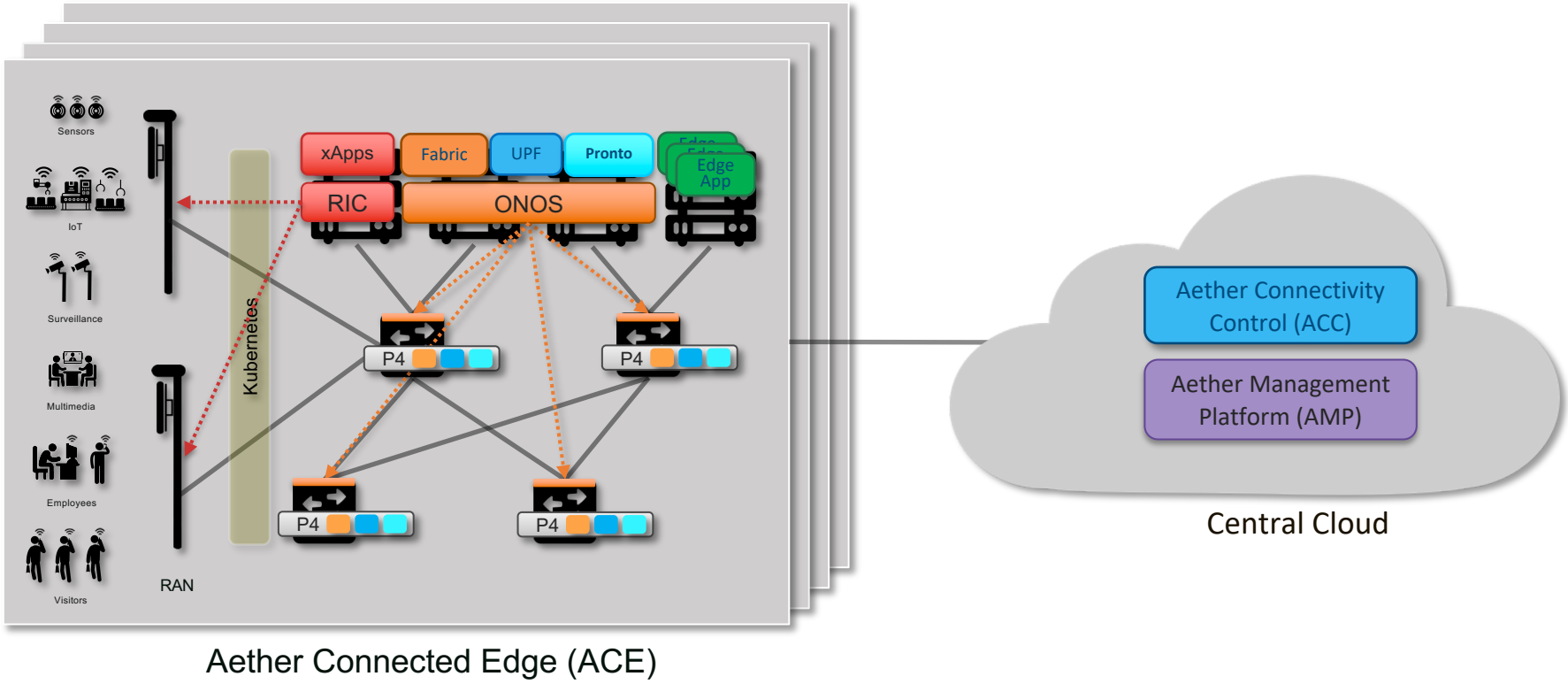
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