Edge Computing

ONF Connect December 2018

WHO AM I

Daisho Employee 001 (Double Oh One)

Roles:

- Currently Chief Technologist
- Previously Chief Architect

Expertise:

- Big Data - Hadoop, OLTP, OLAP, Vectorization
- Systems Architecture - Distributed systems, Embedded systems

Fun Facts: I like spandex, Licence to code, Our marketing team is awesome!

COMPANY IDENTITY

Vision

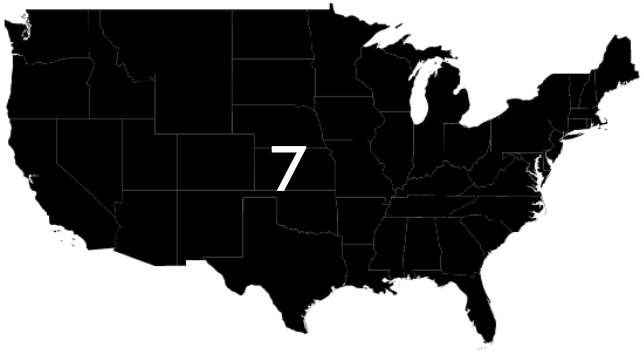
Be the industry standard for edge computing platforms.

Mission

Enable low-latency computing everywhere.

OUR TEAM

Corporate Operations
Menlo Park, CA



+

Product R&D
Madrid, Spain

= 16

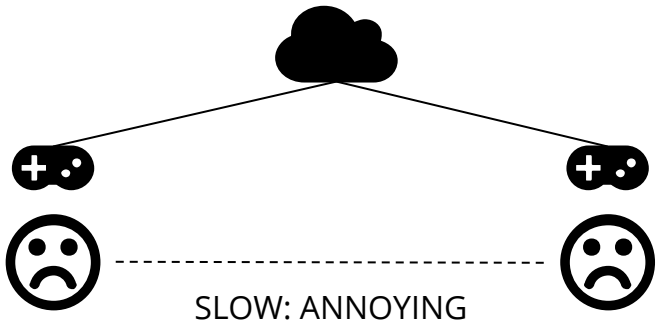
PROBLEM WORTH SOLVING

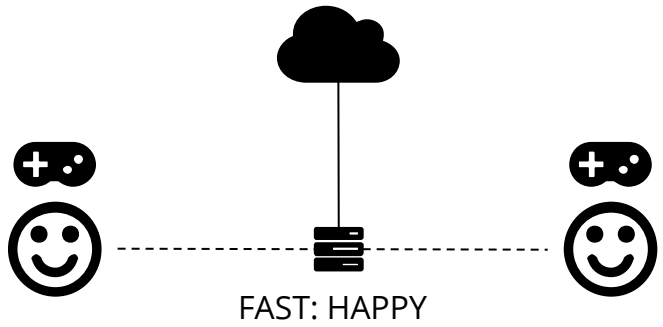
Latency = Gridlock

The future requires standardized low-latency computing across an explosion of data, exponentially distributed infrastructure, and devices.

GLOBALLY DISTRIBUTED USERS

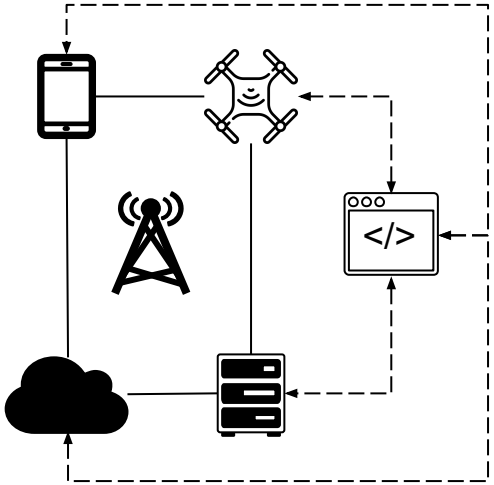
Localize Services - Move Computing Resources Closer to Your Users





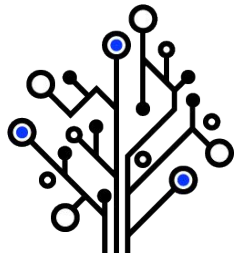
SOLUTION

Nalej Platform is Edge Computing-as-a-Service



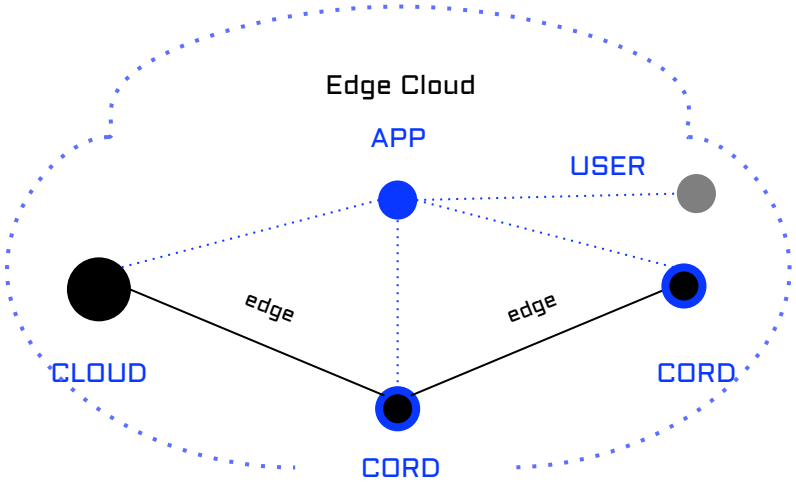
Nalej unifies IoT, Mobile, Fog, and Cloud devices to provide high-performance, low-latency digital experiences.

DIGITAL EDGE TRANSFORMATION



DIGITAL TRANSFORMATION

Telecom enabled Edge Computing-as-a-Service



Integration with CORD in Three Phases

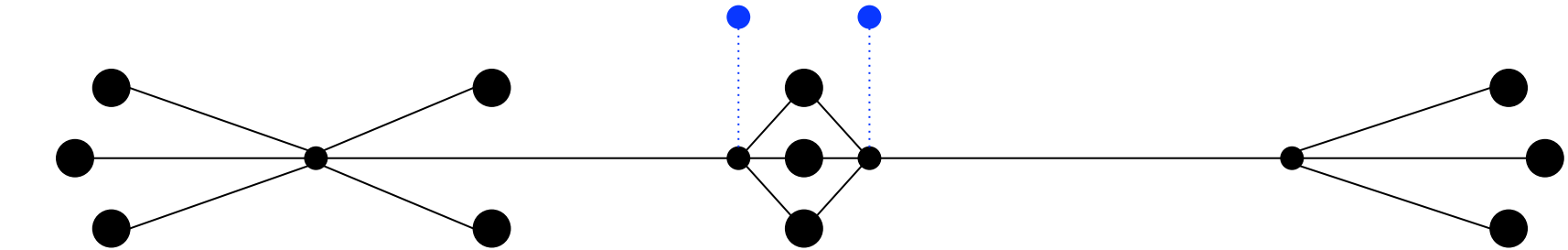
Proximity drives performance and lowers latency. CORD on Nalej enables service mobility to drive proximity.

Nalej:

1. Unifies CORD infrastructure
2. Deploys CORD
3. Is CORD

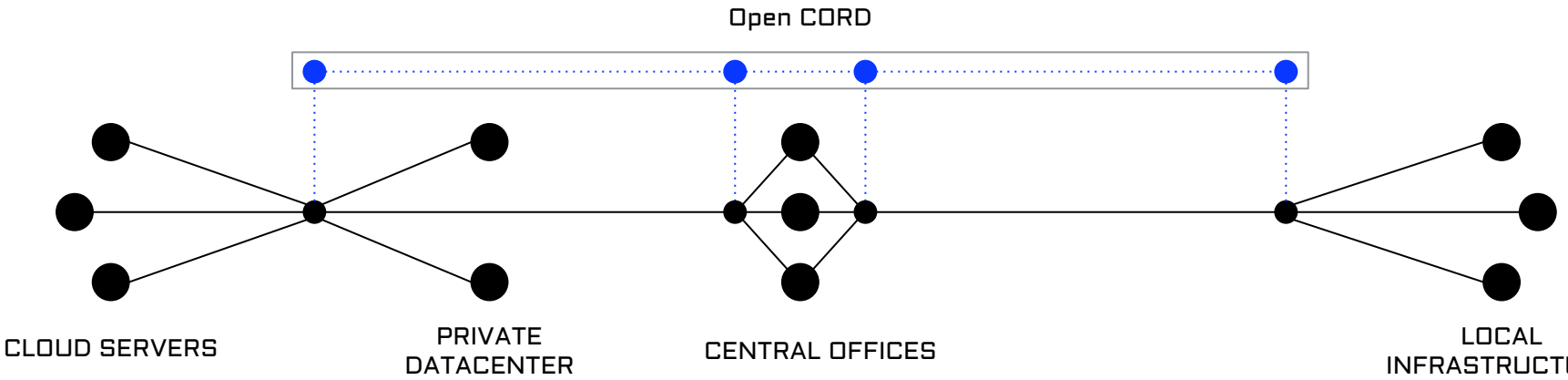
XOS/ONOS ADJACENT

Infrastructure: Unified Compute, Storage, and Network



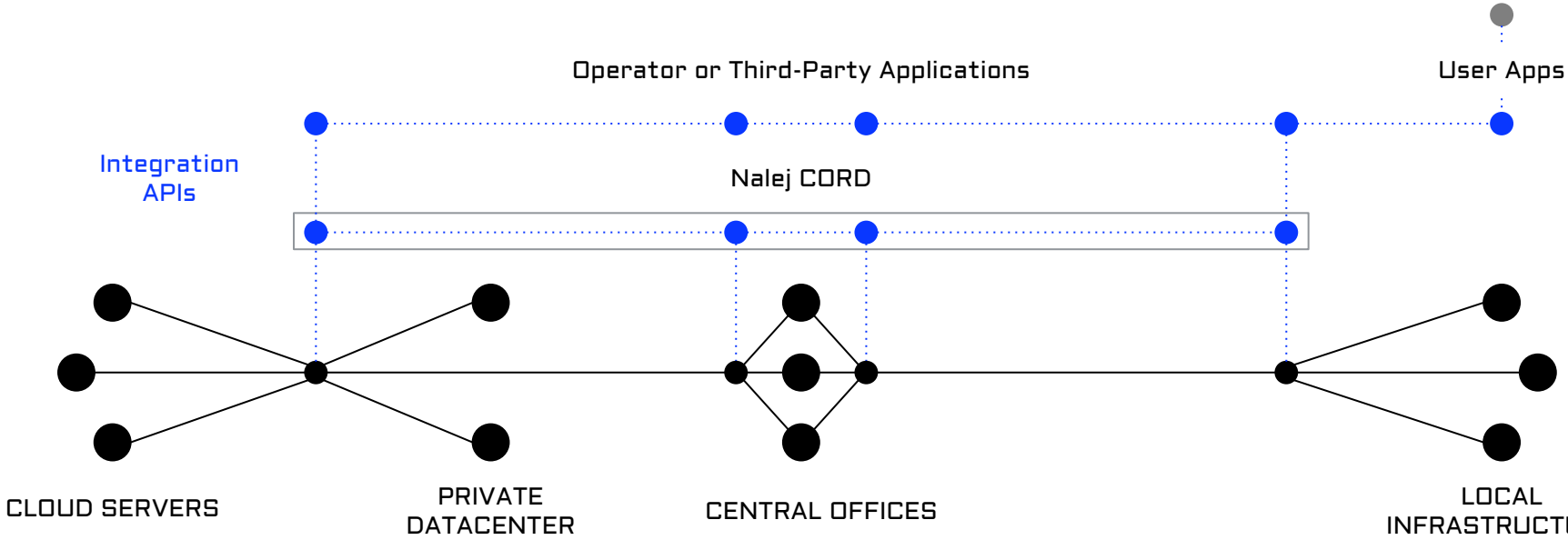
OPEN CORD DEPLOYMENT

CORD with Service Mobility Transforms XOS and ONOS

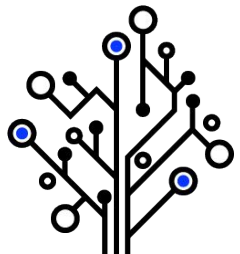


NALEJ INTEGRATES CORD

Best-fit Architecture and Service Mobility for All Applications

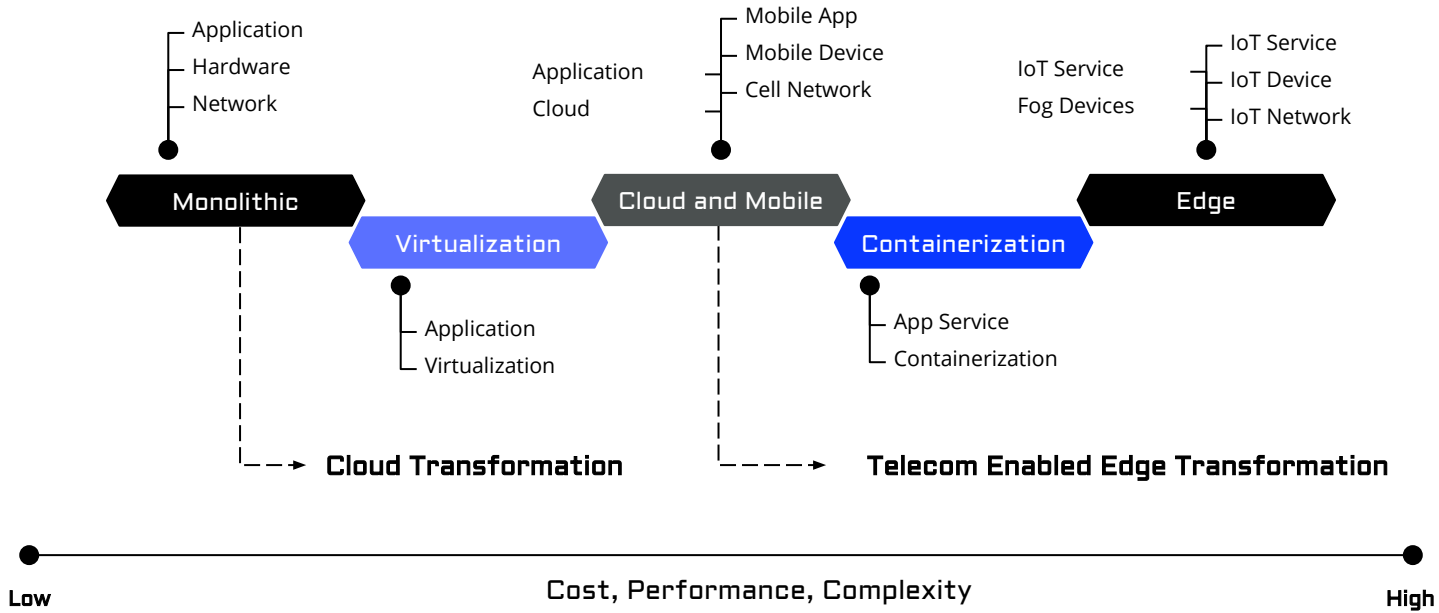


THE EDGE OPPORTUNITY



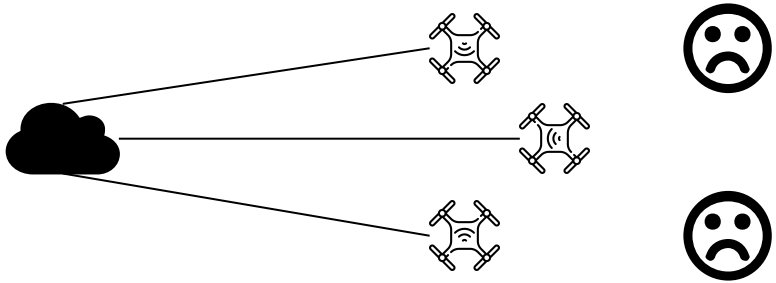
WHY NOW

Digital Transformation the Bridge between the Present and Future

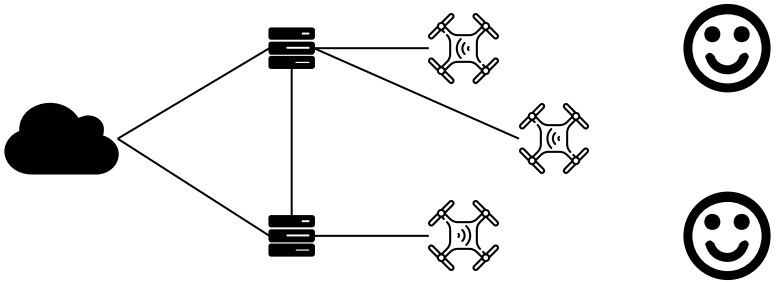


HYPERMOBILITY

Proximity Drives Performance and Lowers Latency



SLOW: DEATH
High-latency Cloud Roundtrip



FAST: LIFE
Real-time Localized Decision Making

NALEJ SIMPLIFIES EDGE

Use Existing Skills, Tools, and Nalej Libraries and Features

LINUX | DOCKER | KUBERNETES

IoT & Mobile Devices

- Libraries for registering embedded applications
- Device profiling
- Unified monitoring and alerting

Infrastructure

- Registration and discovery
- Network profiling
- Automated lifecycle management

Microservices & Applications

- Packaging and deployment
- Multi-layer networking and profiling
- Active replication, rebalancing, and disaster avoidance

WIN THE FUTURE TOGETHER

Work with us

Nalej v0.1 Alpha
1/19/2019

Running OpenCORD services on ARM devices:

- Cachengo hardware
- OpenCORD software
- Nalej orchestration

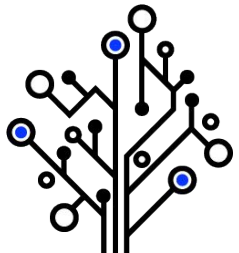
We are looking for collaboration partners!

http://daisho.group

http://daisho.group

Launching 1/19/2019

BONUS



NALEJ PLATFORM

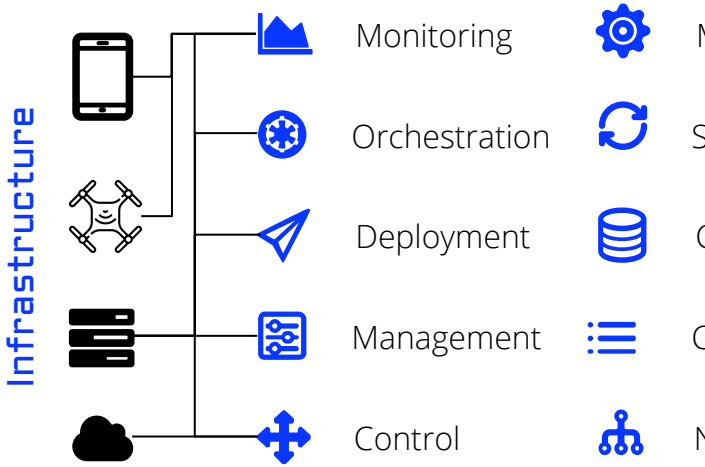
Core Components

Data Plane - Isolated compute infrastructure where end-user applications are deployed.

Management Plane - Configuration management for connected infrastructure and applications.

Control Plane - Network connectivity for all infrastructure resources.

Features

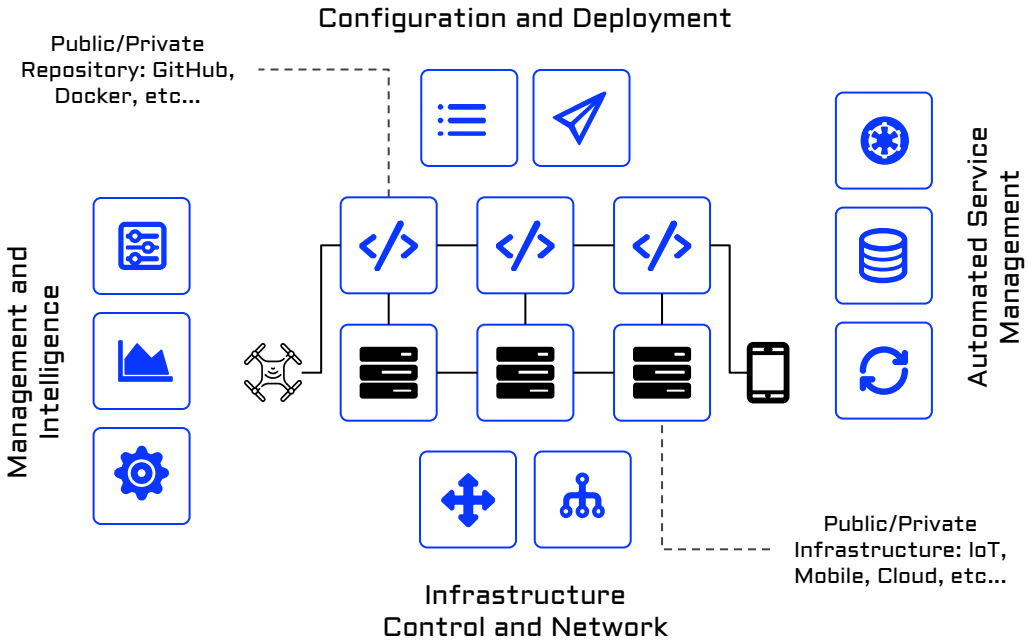


HOW IT WORKS

Edge Service Graph

SERVICE PROFILE

- Resources
- Capabilities
- Connectivity
- Cost
- Performance
- Security



DEPLOYMENT MODEL