Mobiledge X

Edge computing: Enabling truly immersive experiences

Dutch Guild of Multimedia Engineers

The Hague - 2nd of April 2019

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About Us

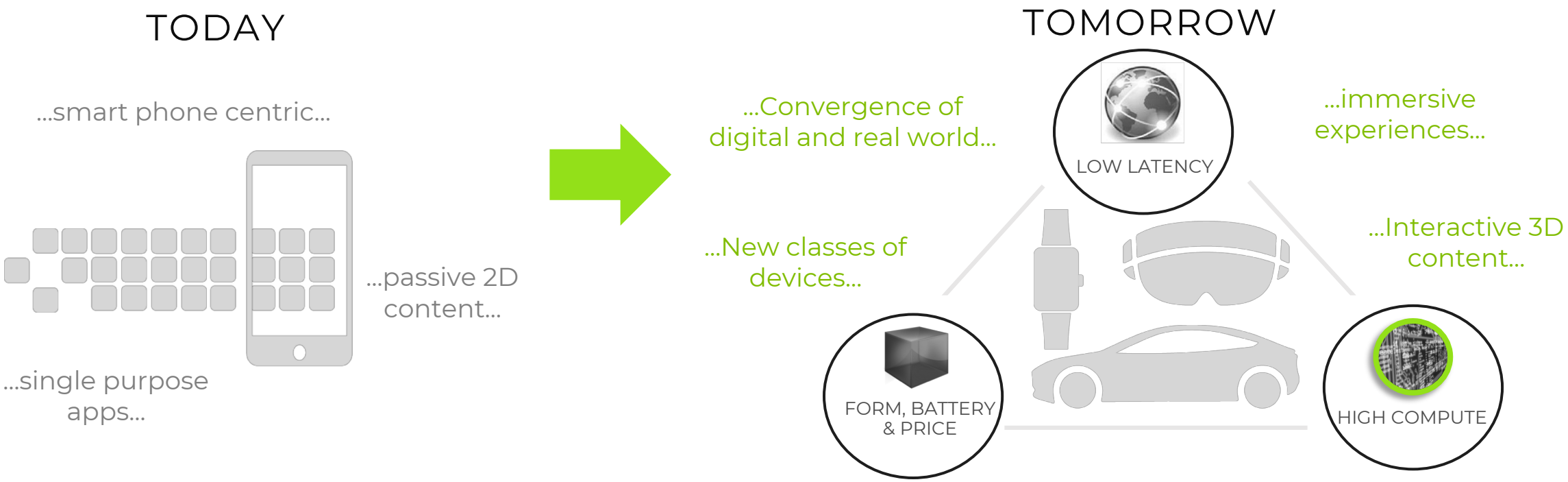
MobiledgeX is a creating a marketplace of edge resources and services that will connect developers with the world's largest mobile networks to power the next generation of applications and devices.

Based in
San Francisco, CA

Founded by
Deutsche Telekom
in **2018**

Visit
Mobiledgex.com

From passive content to immersive experiences

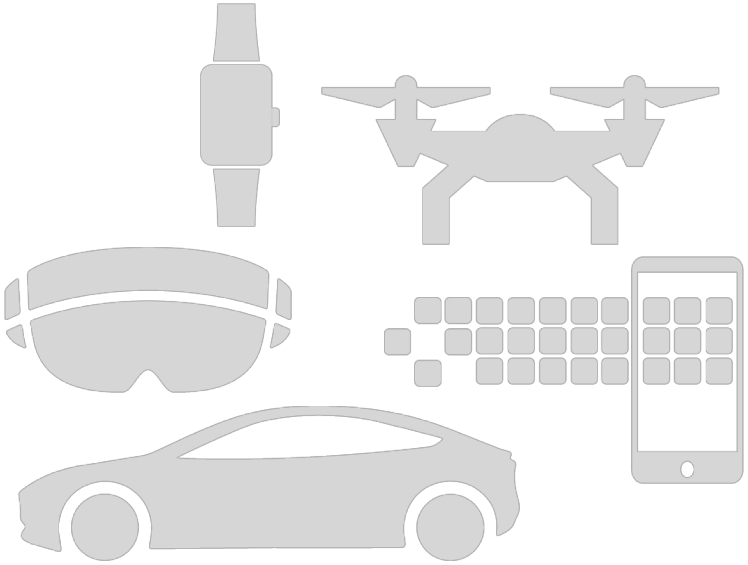


Immersive experiences pushing the boundaries

Combination of low latency, high compute and device optimization required

Current State

DEVICES



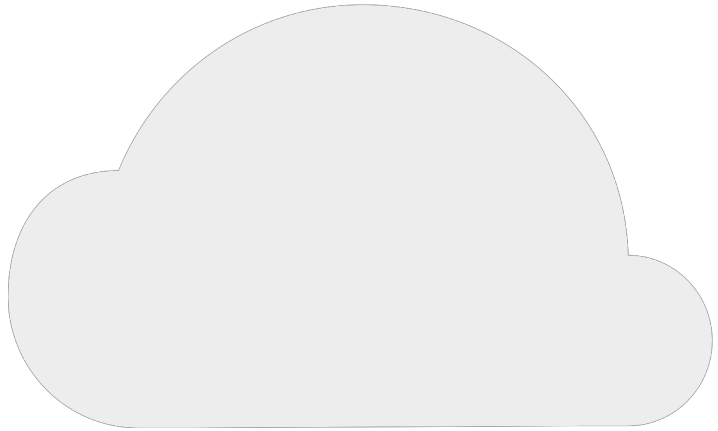
3.7 billion
devices

NETWORKS

1.7 Trillion USD
CAPEX last 10 years

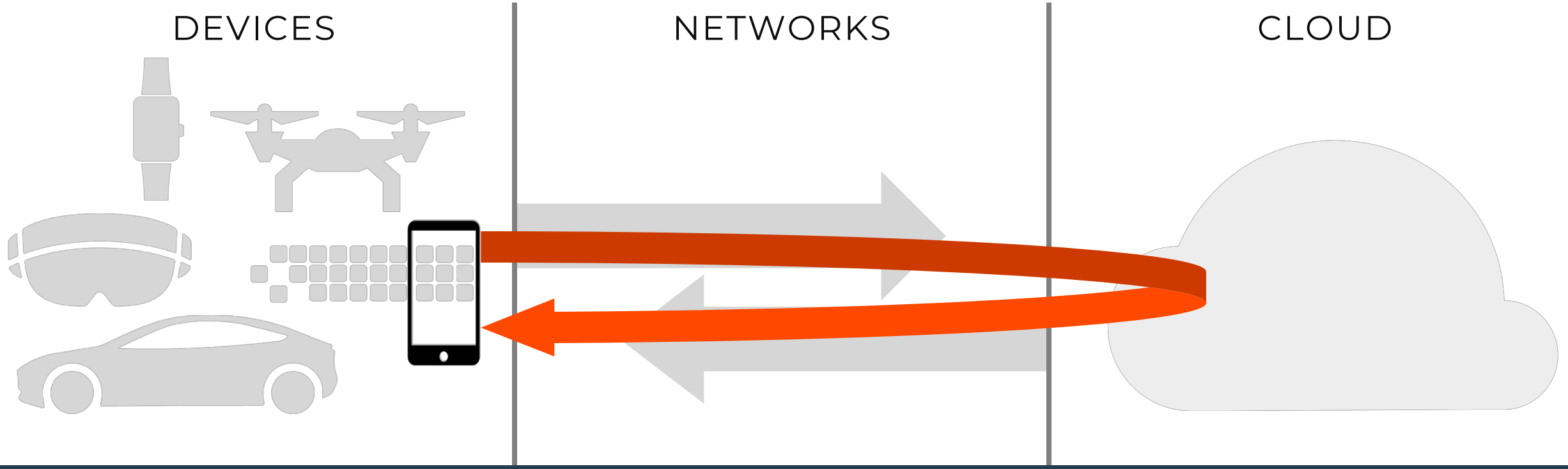
(mainly used as bit pipe)

CLOUD



300 Billion USD
CAPEX last 10 years

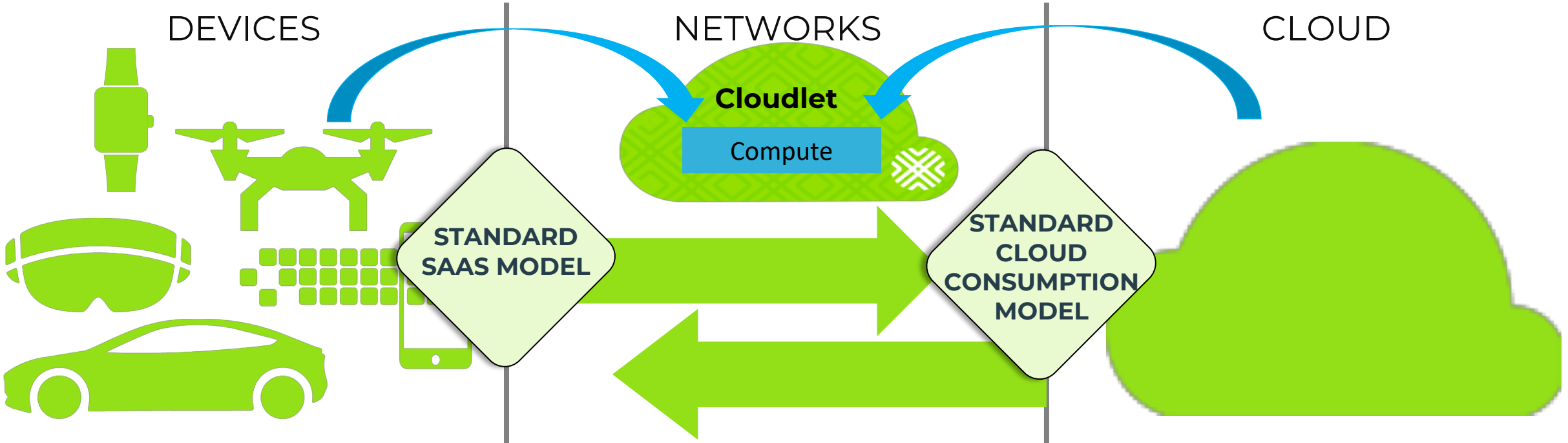
Client is Mobile – Cloud is Static



Static and geographically distant cloud

Client has become mobile but backend is still location unaware and static

The New, Better Way!



Device Native

Supporting convergence of development frameworks for every device OS

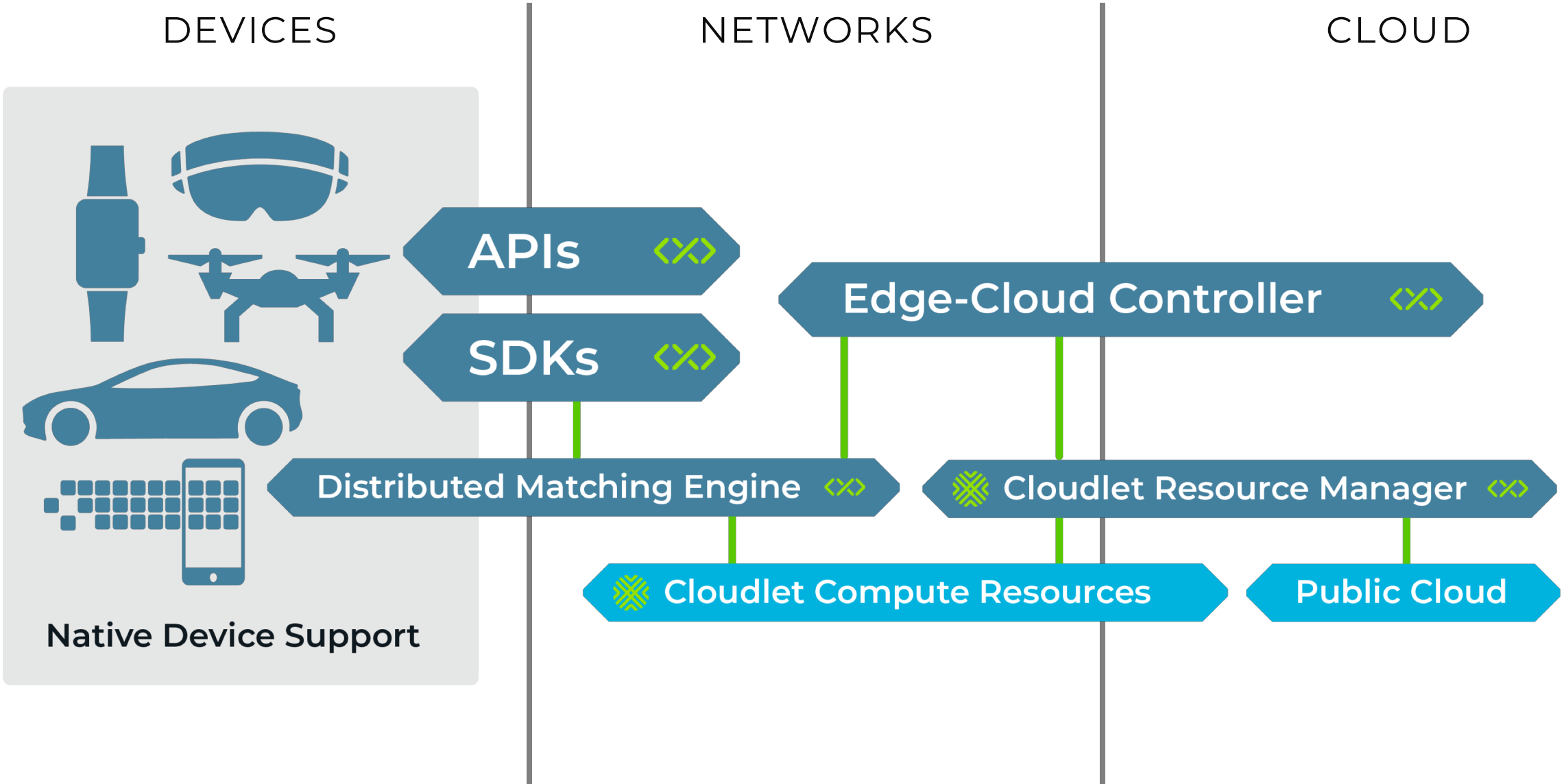
Zero Touch

Abstracting mobile networks to developers AND providing the back-end always close to the user

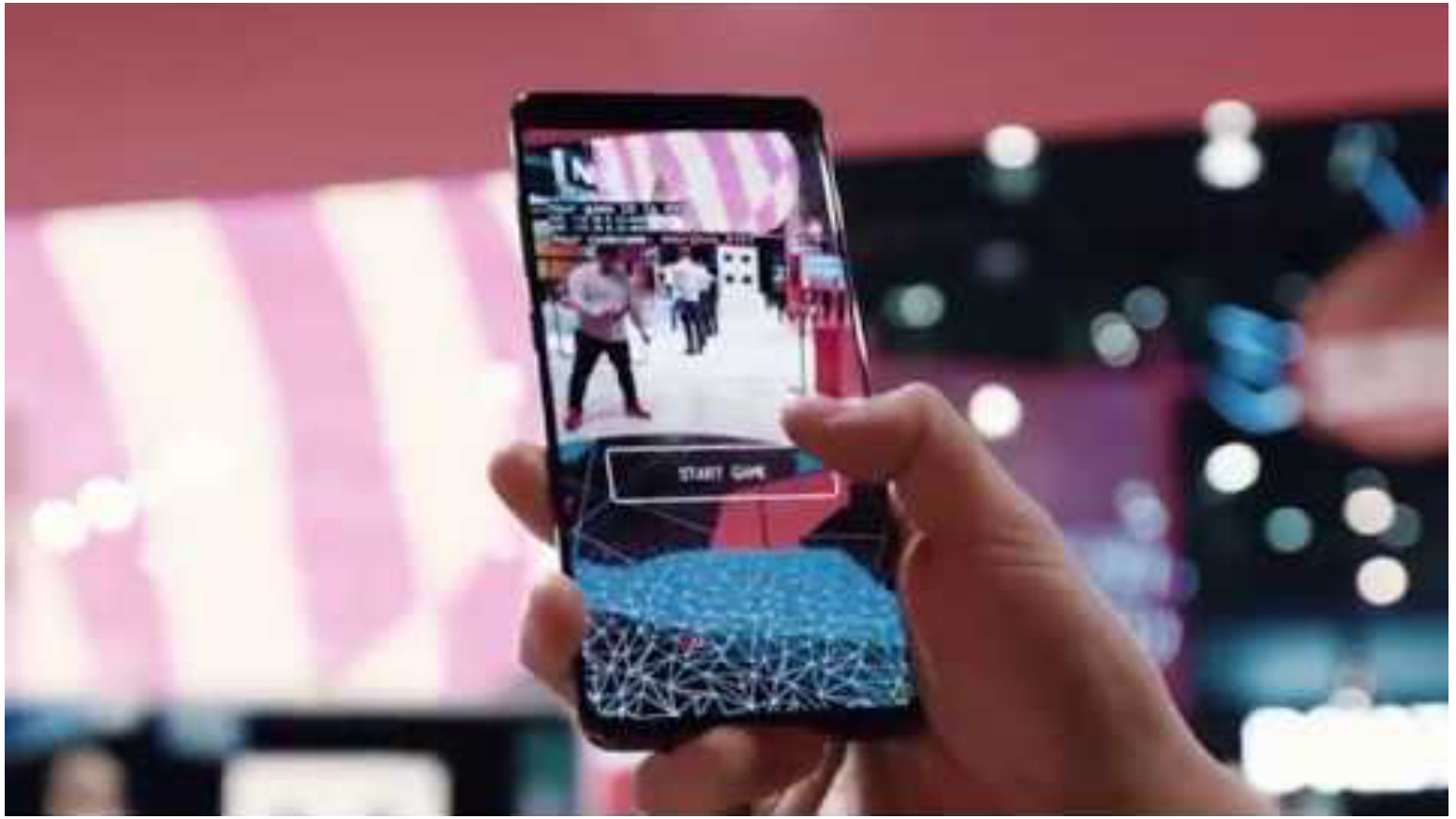
Cloud Native

Bringing cloud services to the edge

MobiledgeX Architecture



Use case
AR Multiplayer gaming



MobiledgeX NIANTIC T-Mobile SAMSUNG

Edge Relevance

Hyper local synchronization of multiplayer (clients) meshes and actions not possible p2p

Smooth gameplay requires real-time, low latency synchronization

Use case
Interactive XR

Edge Relevance

Off-load of compute from VR headsets to improve form factor, battery consumption and price

Higher quality of experience through better compute capabilities, compared to on-device

Edge needs 5G? Or 5G needs Edge?

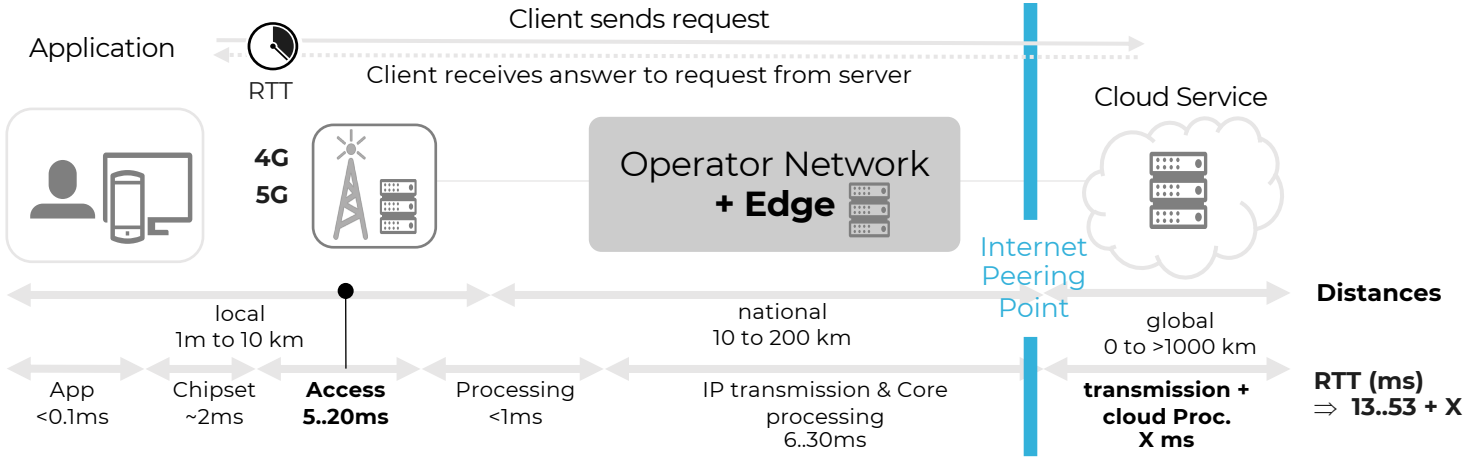
5G Network

- Access network latency reduced compared to LTE
- Roll-out and ubiquitous coverage will take time
- Differentiated QoS (Network slicing)

Edge

- App back-end close to the user to reduce signal propagation delay and reduce data transport
- In-network Edge to improve infra monetization for operators

Access improvement



Distance & quality improvement

Truly immersive experiences require E2E optimization & management

MobiledgeX

Edge-Cloud R1.0

World's First Public Mobile Edge

MobiledgeX Edge-Cloud R1.0 enables application containers to be deployed with the same simplicity as over-the-top, hyperscale datacenter-based cloud providers. The product powers compelling new use cases already live in networks today, including:

Automatically deploying application backends close to users based on their Verified Location and Identity

Augmented Reality & Mixed Reality Performance Support

Video & Image Processing That Meets Local Privacy Regulations

Existing use cases

Visit our Website

www.mobiledgex.com

for more details on actual use cases already deployed

Thank You!

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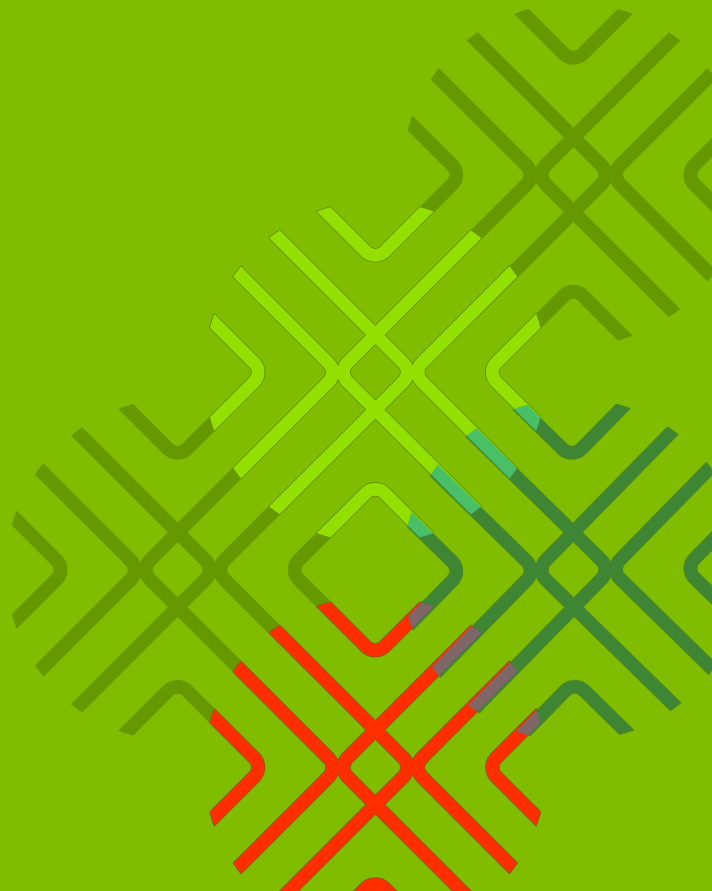
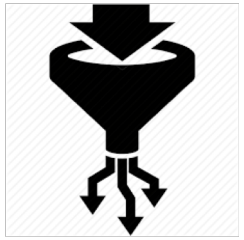


Build a Better Cloud for these Use Cases



Mobile Data Thinning

Video, IOT and Big Data filtering to reduce network bandwidth and storage costs for storing raw data when it can be comprised to events or insights.

IOT

IOT security through verified location and fraud detection.

Mobile Gaming

Increase scale of multi-player games while reducing battery energy consumption on the mobile device at the same time.

New Pervasive & Immersive Experiences

New category of PI apps such as Smart Glasses, Wearables. Heavy use of video and A.I. for natural language and image processing such as facial recognition.

Group management

Simplify and optimize communications and logic to control many devices that form ad hoc groups such as drones performing an aerial routine.

Compliance & Privacy

Locate and identify the user to ensure compliance with privacy regulations such as GDPR.

MWC 2019 Presence

3 high profile demo environments with different partners

AR Multiplayer@DT Booth

2,000+ visitors to multi-player AR game demo w/ Niantic & Samsung

Learn more here

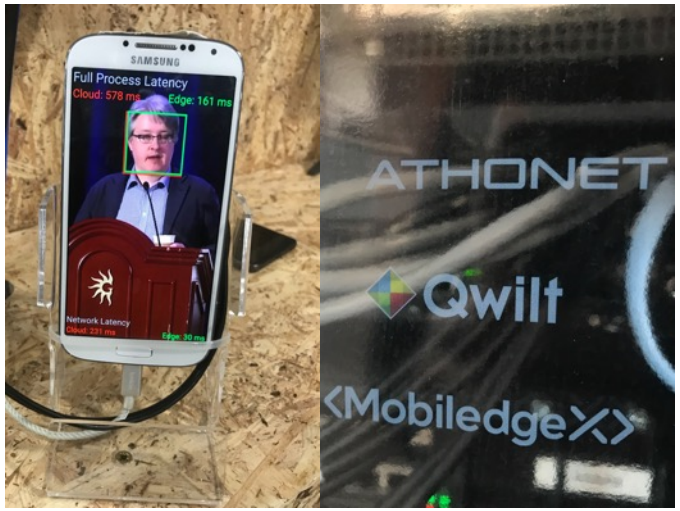
https://www.telekom.com/en/media/media-information/archive/worlds-first-mobile-edge-mixed-reality-multi-gamer-experience-564004

Enterprise AR@SKT Booth

Most trafficked demo in the emerging technologies area.

Learn more here

https://www.globenewswire.com/news-release/2019/02/20/1738424/0/en/MobiledgeX-and-SK-Telecom-to-Demonstrate-the-Next-Generation-of-Connected-Devices-and-Edge-Enabled-Application-Experiences-at-MWC.html



Face detection@Facebook TIP Booth

Shown as anchor of TIP's end-to-end demo.

Learn more here

https://mobiledgex.com/blog/2019/02/25/tip-community-lab-launches-cloudlet-for-edge-application-developers