

# Edge KPIs

March 2020



# Outline

- › Need for KPIs
- › Edge Requirements
  - › Application Requirements
  - › Edge Site Requirements
- › Project Expectations
- › Collaboration



# KPIs

- › A future with many Edge blueprint that will lead to many deployment stack .
- › Clear definitions of the Edge KPIs are required to match the application to an Edge infrastructure/BP with the required capability.
- › The de facto standards must be defined in a way that both considers the application requirement and the infrastructure capabilities.
- › Edge KPIs are an essential part of the de facto standards required.

# Edge Requirements

- › Application Requirements
- › Edge Site Requirements
- › Miscellaneous Requirements

# Application Requirements (1/2)

- › Define requirements for Edge applications - storage, network, compute, orchestration etc.
  - › Application X needs **low** network latency and **medium** storage IOPS
  - › Application Y needs **high** GPU, **medium** network download throughput.
  - › Application Z needs **specific** geolocation **high** upload network throughput

## Application Requirements (2/2) – Need for KPIs

- › How much network latency is **low** network latency ?
- › How much storage IOPS is **medium** ?
- › How much throughput is **high** network throughput ?
- › Need for well defined KPIs
- › KPIs should be **defined** and **measurable**. For example
  - › Ultra low network latency: Latency 0-10ms
  - › Medium storage IOPS: 1000-2000
  - › High network throughput: 10-100 Gbps
- › Ability to decide edge site for application based on KPIs.

# Edge Site Requirements

- › What qualifies as an edge site ?
  - › Define minimum capabilities for a site to be called as an Edge Site.
  - › These capabilities could be – Services, APIs, Orchestration Hardware specs (basic set) etc. ?
- › Categorize edge sites
  - › Identify categories of edge sites.
  - › Define Criteria for categorization of Edge sites.

# Project Expectations

- › **Project Name: *Kontour*** (an outline representing or bounding the shape or form of something)
- › Define Edge requirements from various perspectives/categories.
  - › Application Requirements
  - › Edge Site Requirements
  - › Miscellaneous requirements
- › Define KPIs based on above requirements/categories.



# A Shout out to the community

- › Call for action:
  - › Collaboration between Edge Blueprint, Hardware vendors, Application SW providers, Testing vendors to
    - › Identify and categorize edge sites
    - › Publish and standardize KPIs
    - › Validate/Certify edge sites based on the KPIs.
    - › When this will be mature this will give input to Validation and API project as well

## KPIs (1/2)

- › GSMA Announcement (27<sup>th</sup> Feb, 2020)
  - › Leading operators China Unicom, Deutsche Telekom, EE, KDDI, Orange, Singtel, SK Telecom, Telefonica and TIM have joined forces, with the support of the GSMA, to develop an interoperable platform to make edge compute capabilities widely and easily available.
  - › Platform is to be developed in 2020, will make capabilities such as latency, compute and storage available to application developers and software vendors enabling them to fulfil the needs of enterprise clients.
  - › Development of **Edge Compute architectural framework and reference platform**