MEC4Drones Panel

Unlocking 5G Edge Value for the Drone Industry

- Getting closer to connected drones, objects and people
- Opening the 5G edge for the Drone ecosystem

Nurit Sprecher, June 25, 2023



5G Recap





5G-Advanced Introducing a four E's approach to crafting the quality networks

Extending global coverage and reach to more people, <u>drones</u>, industries



Expansion to support <u>high-precision location</u>, <u>presence and timing technologies</u>





<u>Truly immersive & interactive MBB experience</u>, with bounded latency and high data rates



Network-wide operational excellence, greater levels of energy – all empowered by AI/ML



VOKIY

5G edge: getting closer to people and connected objects



Robust low latency for critical voice and data ✓ Ultra-low latency

- Proximity
- ✓ High Bandwidth
- ✓ Location awareness
- Real-time insight into network & context information

NUCIT



5G edge: the opportunity

A service environment for enterprise, verticals and application ecosystems





5G edge: fundamentals



Agile, value-sharing digital platform

- Enables speed of innovation with the ecosystems of different industries
- Exposes information for value creation
- Opens new business opportunities, especially in ultra-low latency use cases



Flexible applicability & deployment options

- Provides a universal application platform, which is a natural element of 5G
- Can be brought to all locations: far edge, enterprise edge, access, aggregation hub, distributed data center, centralized data center

A key stone of the URLLC transformation

New Class of

- Enables new class of premium SLA-driven and mission-critical applications that require real-time delivery of live and ondemand content, and a high degree of interactivity
- Supports the digital transformation and mobilization of the enterprise industries

NOKIA

Edge computing takes a further leap forward with move to harmonize standards (Link to Nokia Blog)

The fundamental MEC specifications are ready; ETSI MEC is widely recognized in the industry as the leading SDO for application enablement and edge computing.





Mobile edge application architecture, with a UE centric approach



MEC is a key building block for V2X services.



Industrial 5G compute edge use cases, requirements & deployment models

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Harmonizing standards for edge computing -A synergized architecture leveraging ETSI ISG MEC and 3GPP specifications

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MEC is well positioned to satisfy the needs of GSMA Operator Platform and the NGMN Future Networks Cloud Native Platform and help monetizing the operator's network.

Edge cloud and small cell networks synergies



Operator Platform

Concept

ngmr

Phase 1: Edge Cloud C



The 5G edge value for the drone industry

The drone industry is experiencing significant growth and innovation, with diverse use cases.

The integration of 5G technology with drones is opening up new possibilities and revolutionizing the capabilities of Unmanned Aerial Vehicls (UAVs), for example in terms of:

- Reliable and secure connectivity, with low latency
- Remote operation
- Expanded range of applications
- Collaboration between drones
- Etc.

- What are the value opportunities 5G edge can offer to the drone industry?
- What are the network requirements, challenges, constraints and possible solutions?
- What kind of real-time, context-aware information from the 5G edge has the potential to contribute to the overall performance, autonomy and efficiency of drones, and allow them to operate in a wide range of applications?



MEC4Drones panel – goals Unlocking 5G edge value for the drone industry

- Introduce the MEC technology and its value
- Learn about the operator perspectives, drone operations and innovative Apps that can benefit from the 5G edge as well as regulation aspects
- Deliberate and brainstorm the benefits and opportunities for the Drone industry at the edge of the 5G network, the requirements from the network, challenges and constraints as well as possible solutions

Promote innovation at the 5G edge

MEC4Drones panel - agenda

- 16:45 17:00: introduction to ETSI MEC, Dario Sabella, ETSI ISG MEC Chair
- 17:00 17:15: using 5G for Drone Operations makes S E N S E !, Hans Similon, General Manager, Citymesh Safetydrone
- 17:15 17:30: unmanned Life: Pioneering Autonomous Robotics Orchestration at the Edge, Jorge Muñoz, VP and Cofounder, Unmanned Life
- 17:30 17:45: leveraging new network capabilities to deploy command and control and deconfliction services, Boris Resnick, CTO, Flyvercity
- 17:45 18:00: Unleashing the Rooster Drone's Potential: The Crucial Role of Network Connectivity, Yam Geva, CTO, RoboTiCan
- 18:00 18:15: Preparing Italian Airspace to accommodate U-SPACE and Innovative Air Mobility (IAM) A Service Provider Perspective, Cristiano Baldoni, Chief of Business Systems Integration, D-Flight, Enav Group
- 18:15 18:30: Unlocking the Network's Value Potential for Drone Apps with Network as Code, Demo, Mikko Jarva, Head of Portfolio and Architecture, Network Monetization Platform, Nokia
- 18:30 18:50: **Open panel discussion and brainstorming** on the opportunities, challenges, requirements, possible solutions
- 18:50 19:00: Wrap-up: learnings and next steps, Nurit Sprecher



