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

x10k traffic
>10Gbps peak data

10 years on battery
1M devices/km²

<1ms latency
Ultra reliability
5G-Advanced
Introducing a four E’s approach to crafting the quality networks

Extending global coverage and reach to more people, drones, industries

Expansion to support high-precision location, presence and timing technologies

Truly immersive & interactive MBB experience, with bounded latency and high data rates

Network-wide operational excellence, greater levels of energy – all empowered by AI/ML
5G edge: getting closer to people and connected objects

- Ultra-low latency
- Proximity
- High Bandwidth
- Location awareness
- Real-time insight into network & context information
5G edge: the opportunity
A service environment for enterprise, verticals and application ecosystems

![Diagram showing various services including Tourism/VR/Gaming, Smart Cities, Connected Utilities, Public Safety, Health, Home, Connected Vehicles & Autonomous Driving.]

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**Edge Service Environment**
A focal point where operators can collaborate with enterprises and application providers

**Telco/Private Network**
Best-in-class RAN with real-time radio optimization enabled by RAN Intelligent Controller
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

New Class of Services
- A key stone of the URLLC transformation
- Enables new class of premium SLA-driven and mission-critical applications that require real-time delivery of live and on-demand content, and a high degree of interactivity
- Supports the digital transformation and mobilization of the enterprise industries
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 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

Industrial 5G compute edge use cases, requirements & deployment models
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 Vehicles (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 Co-founder, 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