

**ROBOTICAN**  
AUTONOMOUS ROBOTICS



SERIES OF  
MULTI-ACCESS  
EDGE COMPUTING  
LIVE PANELS

**ETSI MEC meets  
vertical markets:**  
APIs exposure helping  
the Drones Business

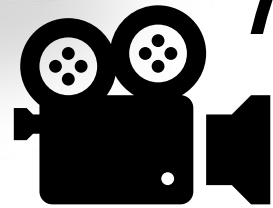
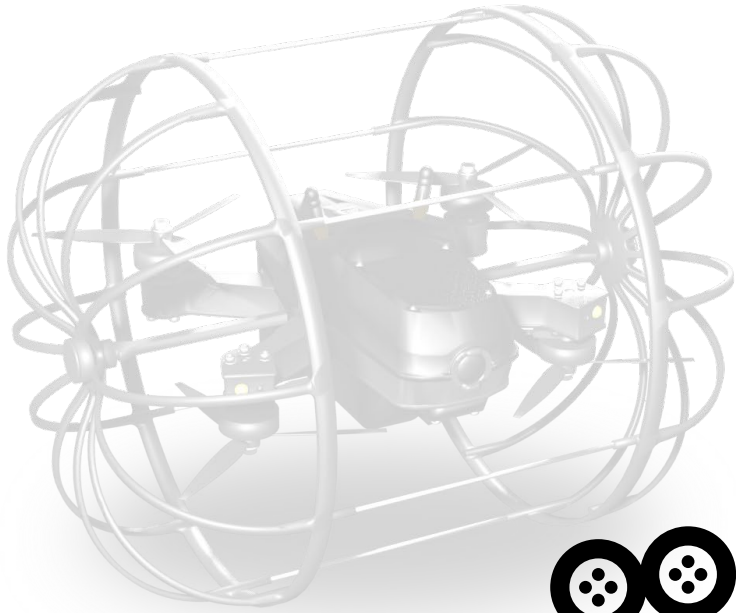
**DR. YAM GEVA**

**Unleashing the Rooster  
Drone's Potential:** The Crucial  
Role of Network Connectivity

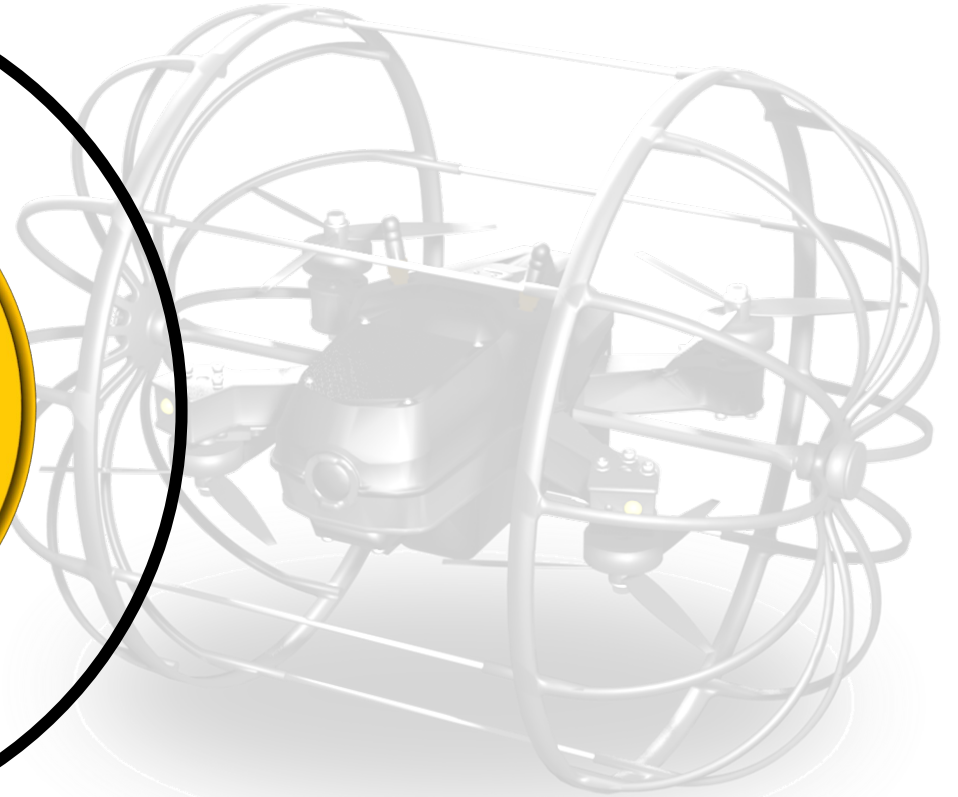
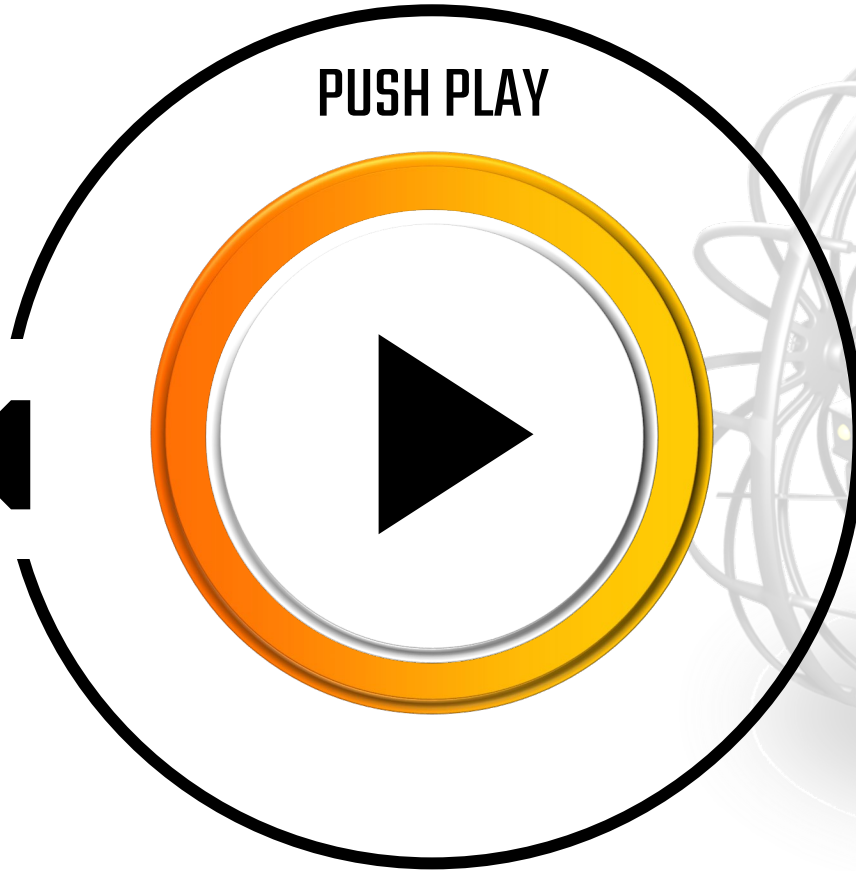
Monday 26 June 2023

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**PUSH PLAY**



# ROOSTER APPLICATIONS & USE

- Indoor and underground surveillance
- Building scanning
- Infrastructure mapping & inspection
- HLS and Defense applications

Caves



Buildings



Ruins



Tunnels



First Responders



Preventative Maintenance  
Inspection



# The Rooster

- Unmanned hybrid platform
- Rolls on the ground and flies when needed
- Stationary on any surface
- MESH communication
- Indoor, outdoor & underground



◆ 3 Roosters

◆ 1 Control unit



The first worldwide hybrid Mobile robot with drone capabilities for indoor operations

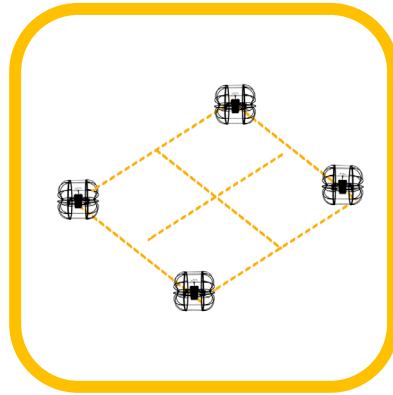


Simultaneous access all drone's FPV video streams on a single control unit

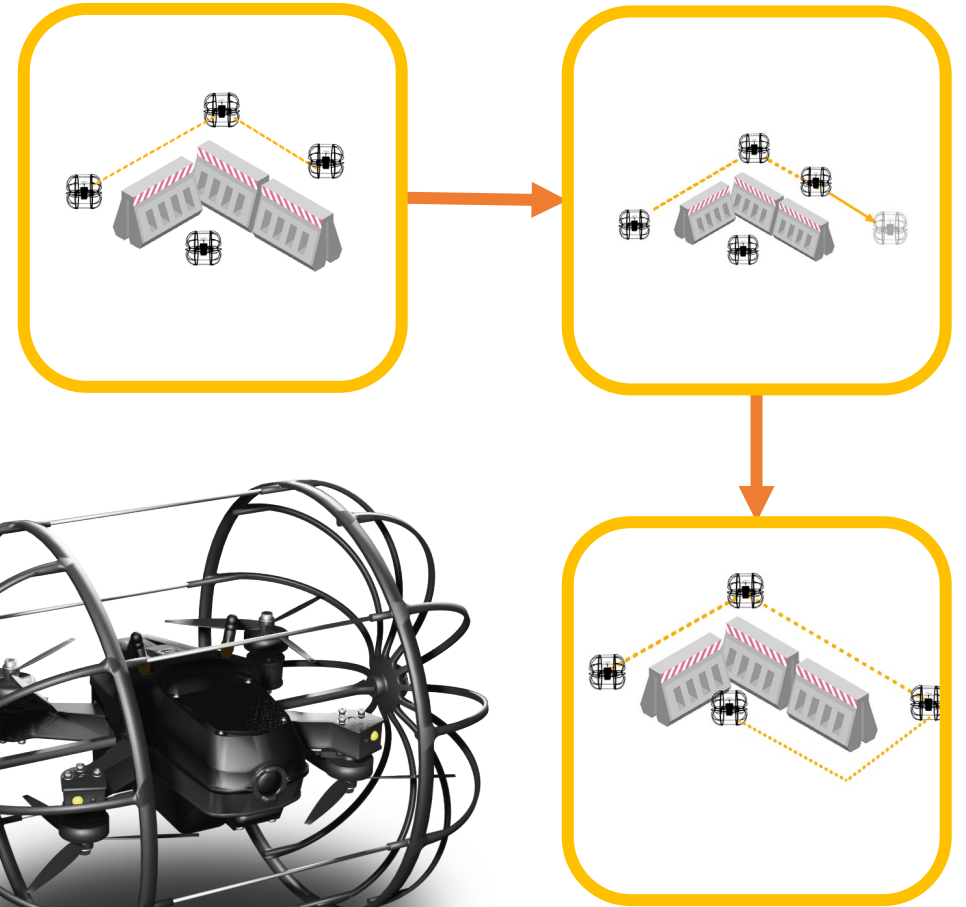
# MESH Communication

- RF or Cellular
- Enabling communication between drones
- Self forming & self healing communication
- Communication deprive/denied environments

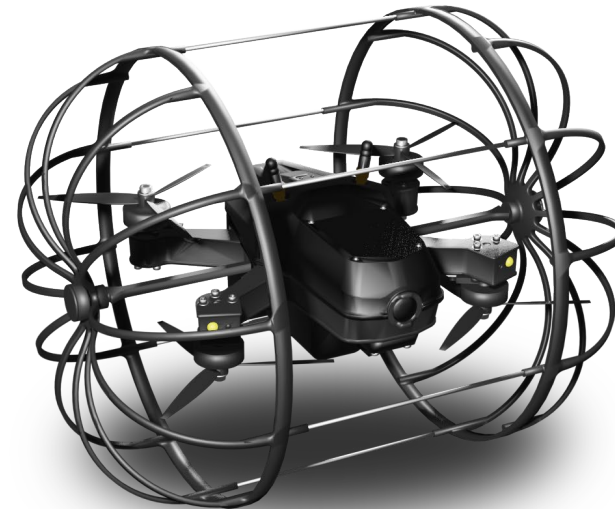
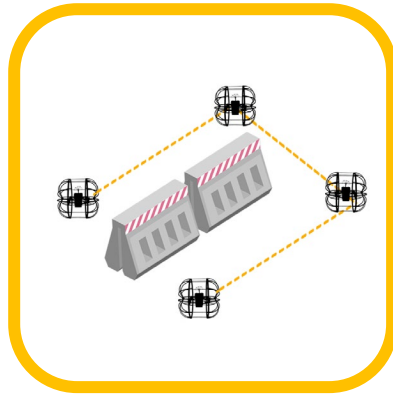
MESH LOS



Self forming & Self healing



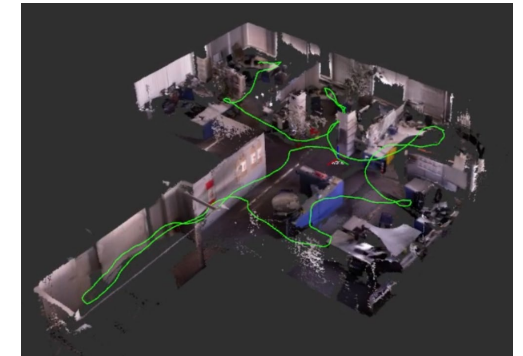
MESH NLOS



# Edge Computing

## Robot Level Capabilities

- Object detection
- Situational awareness
- Autonomous navigation
- Simultaneous Localization and Mapping (SLAM)
- Human-Robot Interaction (HRI)



# *Edge Computing*

## **Operator Level Capabilities**

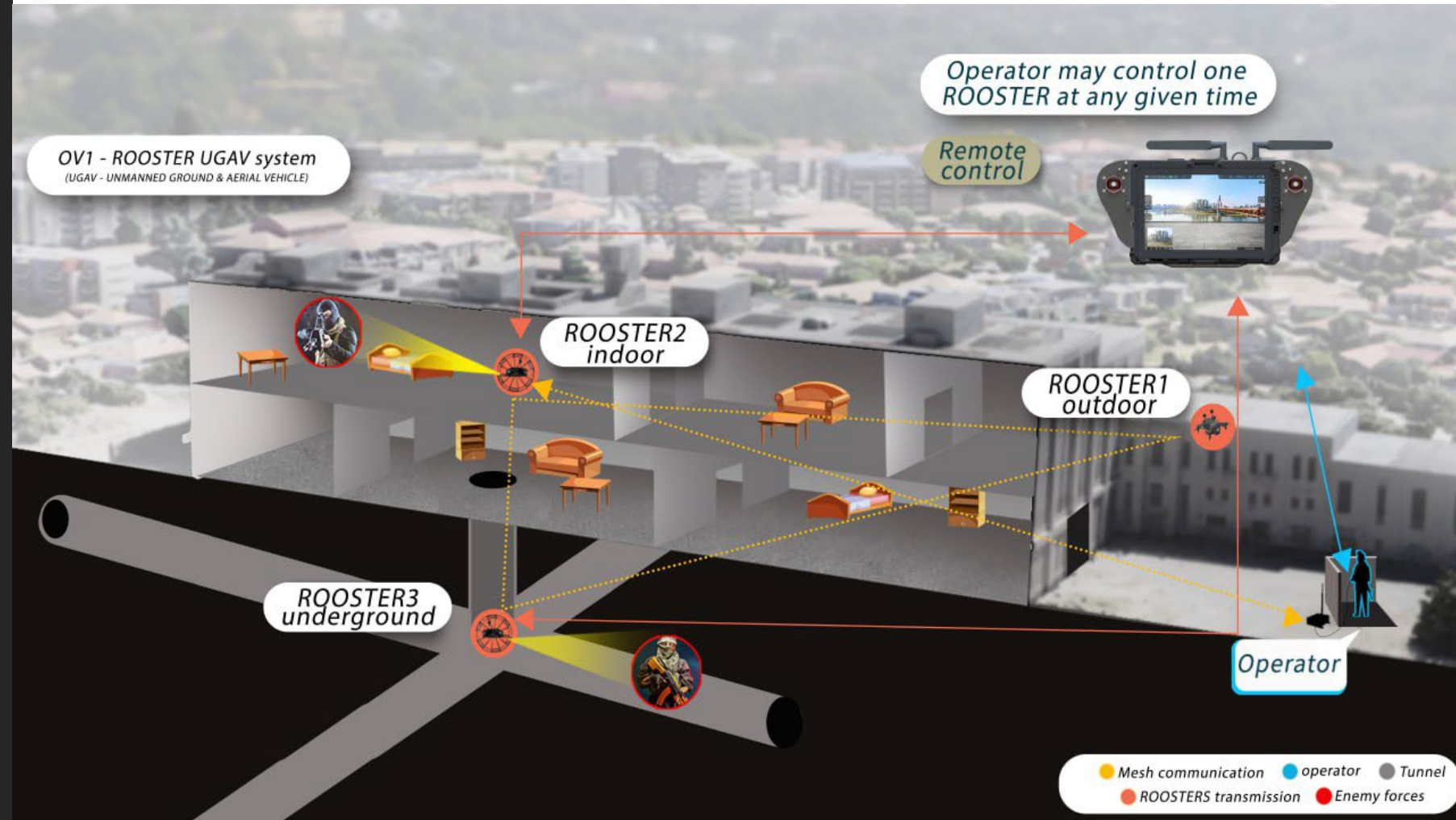
- Low video latency
- Less attention – more robots
- Less computing resources on the ground



# Edge Computing

## System Level Capabilities

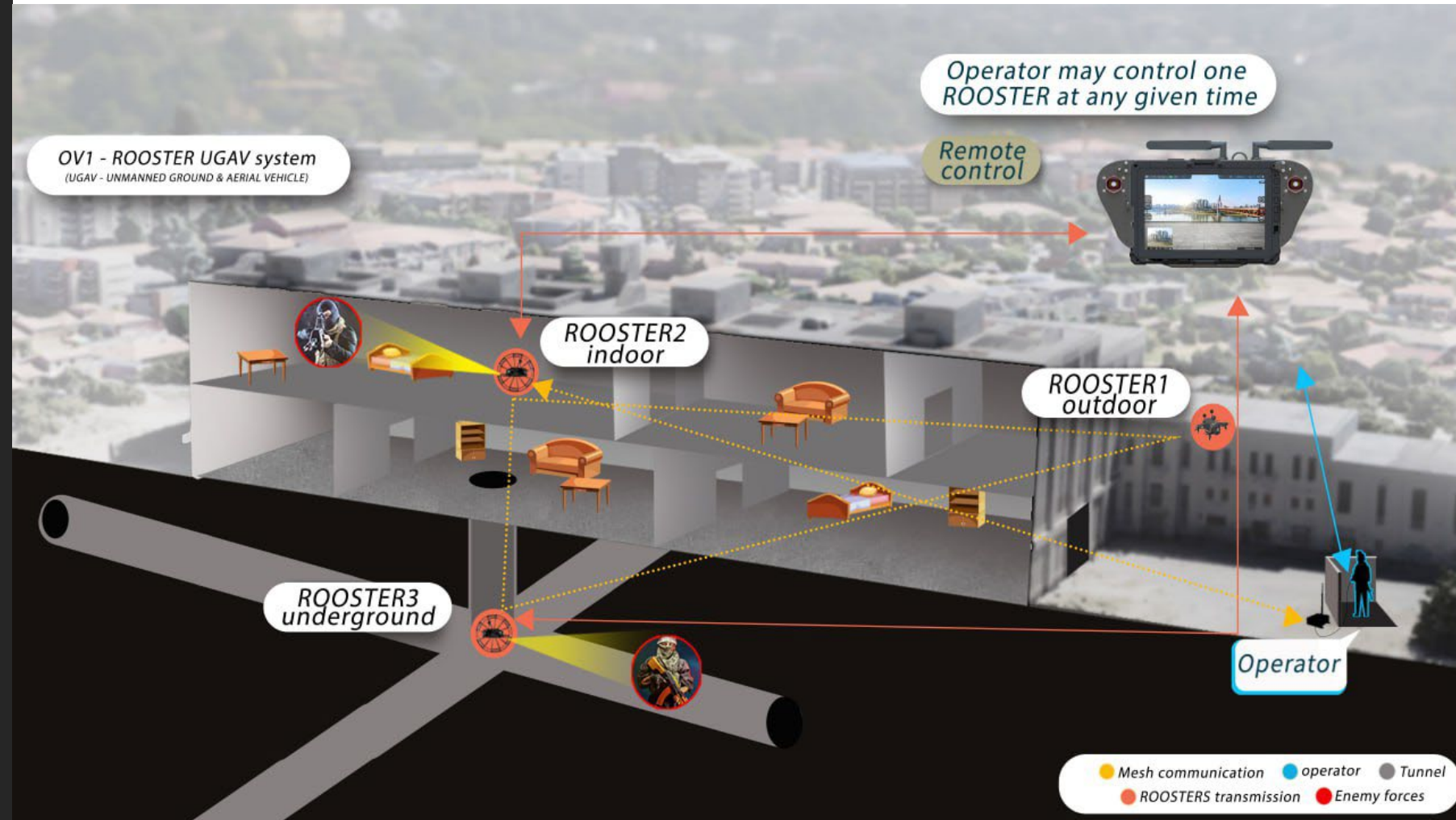
- Low bandwidth
- Improve security
- Increase scalability





# Smart network

- Multi agent coordination
- Adjustable autonomy level
- Continues operation



# ROBOTICAN

A U T O N O M O U S   R O B O T I C S

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## THANK YOU

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