



5G vs. Wi-Fi: What Do we Actually Need for Scalable, Real Private Wireless?

MWC 2024



Today we'll be talking about

01. Why private 5G for industrial?
02. Private 5G use cases in action
03. What's needed moving forward?
04. Conclusions - what's next?



Private networks are growing.

Having a common platform to orchestrate private 5G deployments is crucial for success.



Devices

- 9 billion smartphone connections by 2030



Networks

- 5G will overtake 4G in 2029 to become the dominant mobile technology



Verticals

- Factories (Industry 4.0)
- Energy/utilities
- Oil, gas & mining
- Transport & logistics
- Agriculture
- Education
- And more



AI

- Traditional and generative

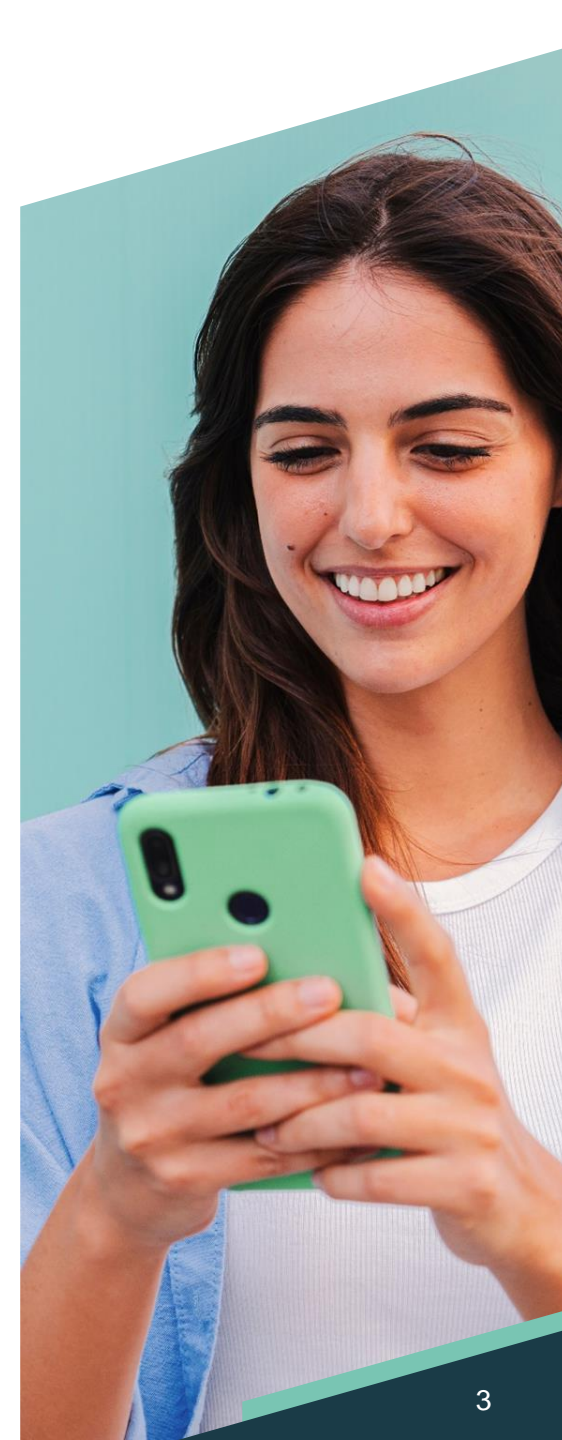


Edge

- Edge enabled hardware and software



Source: The Mobile Economy 2023





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An Indra company



Use cases based on AI, Edge and MPN
Bird detection



The challenge

Possible collision of birds in wind farms to protect wildlife and prevent penalties



Solution and benefits

- Early detection of protected birds in wind farms to avoid the environmental impact generated in the area
- Reduces birds mortality and also the operating costs of Wind farms
- Solution components: AI (Computer Vision) + radar + edge computing

Bird protection



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Use cases based on AI, Edge and MPN

Oil spill detection



The challenge

Fast detection of oil spills, minimising emergency response times



Solution and benefits

Automatic detection of small volumes of oil spills in a few minutes, being a prevention system that anticipates the response phase in case of emergency

- Increases safety in port operations for loading and unloading of potentially polluting materials
- Improved incident response through early warning
- Accurate identification of the spill and the vessels involved
- Solution components: High definition and IR Cameras, AI (Computer Vision) + radar + edge computing

Environmental surveillance



Red Hat

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Use cases based on AI, Edge and MPN

Wildfire detection



The challenge

Anticipate and detect wildfires



Solution and benefits

Collect and analyze visual evidences in real time, detect vegetation encroachment and general conditions of clearways

- Reduces environmental impact
- Improved incident response through early warning
- Solution components: AI (Computer Vision) + sensors (IoT) + edge computing

Anticipate and detect wildfires

What is needed to move forward on the MPN



Start with having the right tools for the job:

- Build it on an edge-native platform, extensible for AI
- Power efficient and extensible compute architecture
- Affordable and diverse radios and devices
- Add in better automation to simplify Day 0/1 deployment
- Oh yes, and more spectrum please !
- Great Teamwork !

Come see how Intel and Red Hat collaborate on delivering private wireless on the newly launched Intel Edge Platform with Red Hat OpenShift and Intel FlexRAN® software

Hall 3 Booth #3E31



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