

DevCon Challenge (GSMA)

Application/solution ideas

September 2023

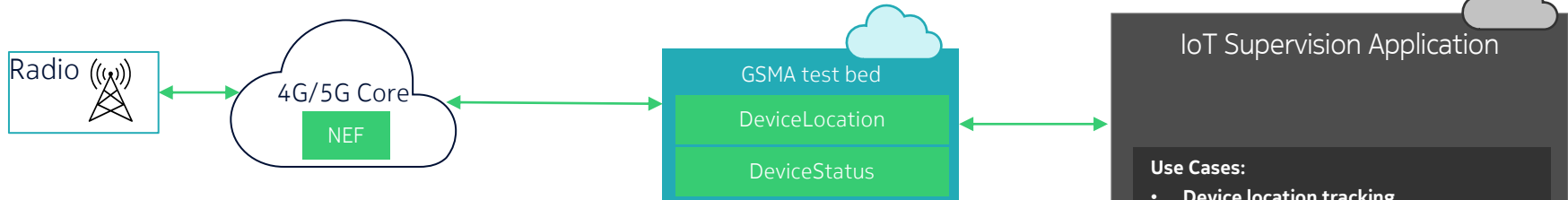
The Nokia logo is displayed in white, uppercase letters within a dark blue circular area. This circle is surrounded by a thick white ring, which is itself set against a larger, lighter green circular background. The entire graphic is positioned on the right side of the slide.

Network programmability applications

1. Device supervision and location tracking application
2. Industrial plant with Smart safety application
3. Drone application with mission critical data mode

1. Device Supervision and Location Tracking

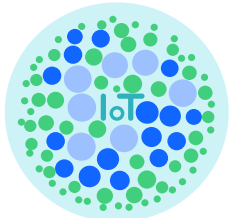
Enabling applications to monitor NB-IoT location and connection status



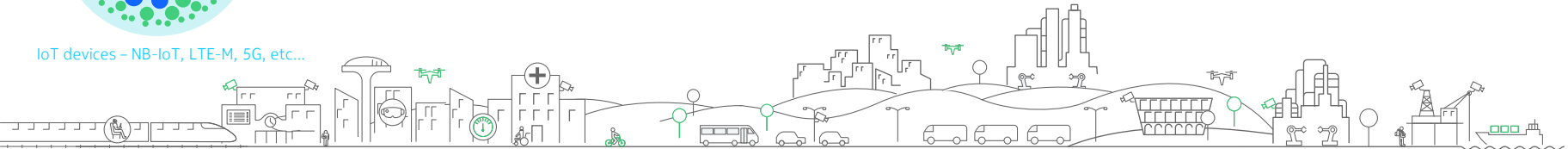
Scenario:

IoT devices are monitored by an IoT Supervision Application

1. Application determines when the device is disconnected from the network.
 - Based on expected device behavior, App determines that device has been disconnected 'too long' and flags potentially 'dead' or defective device.
2. Application queries for device location
 - For mobile devices, App uses location info as required (tracking, geo-fence, etc.)
 - For stationary devices, App identifies device that has unexpectedly moved and flags potentially lost, stolen, or defective device.

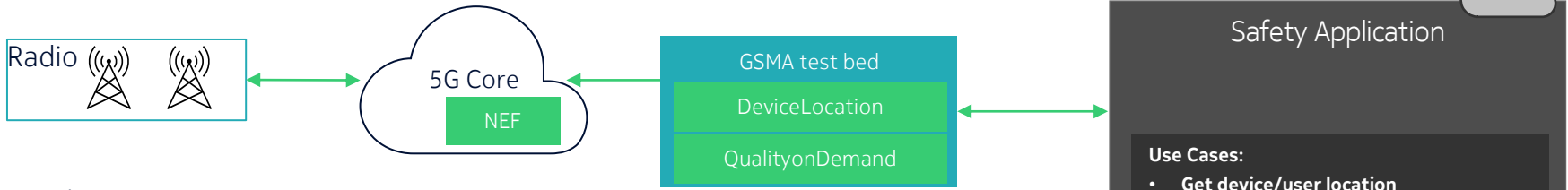


IoT devices – NB-IoT, LTE-M, 5G, etc...



2. Industrial plant with Smart safety application


Application to monitor industrial safety devices and respond to a detected hazard



Scenario:

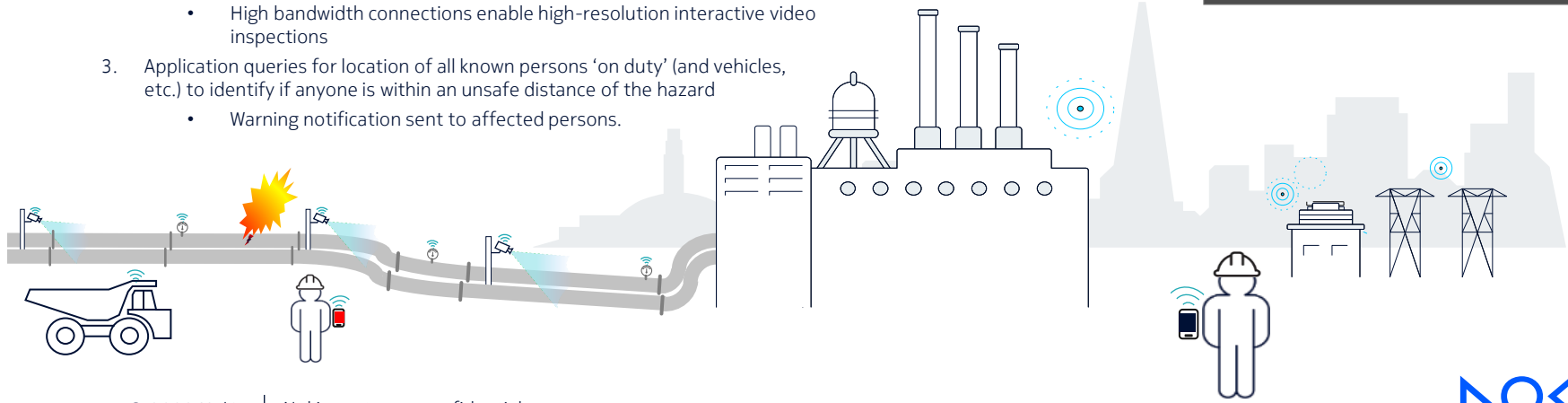
IoT sensors detects safety hazard

1. Application requests device location(s) in the hazard area
2. Application requests bandwidth boost for nearby cameras via QoS on Demand
 - High bandwidth connections enable high-resolution interactive video inspections
3. Application queries for location of all known persons 'on duty' (and vehicles, etc.) to identify if anyone is within an unsafe distance of the hazard
 - Warning notification sent to affected persons.

Safety Application 

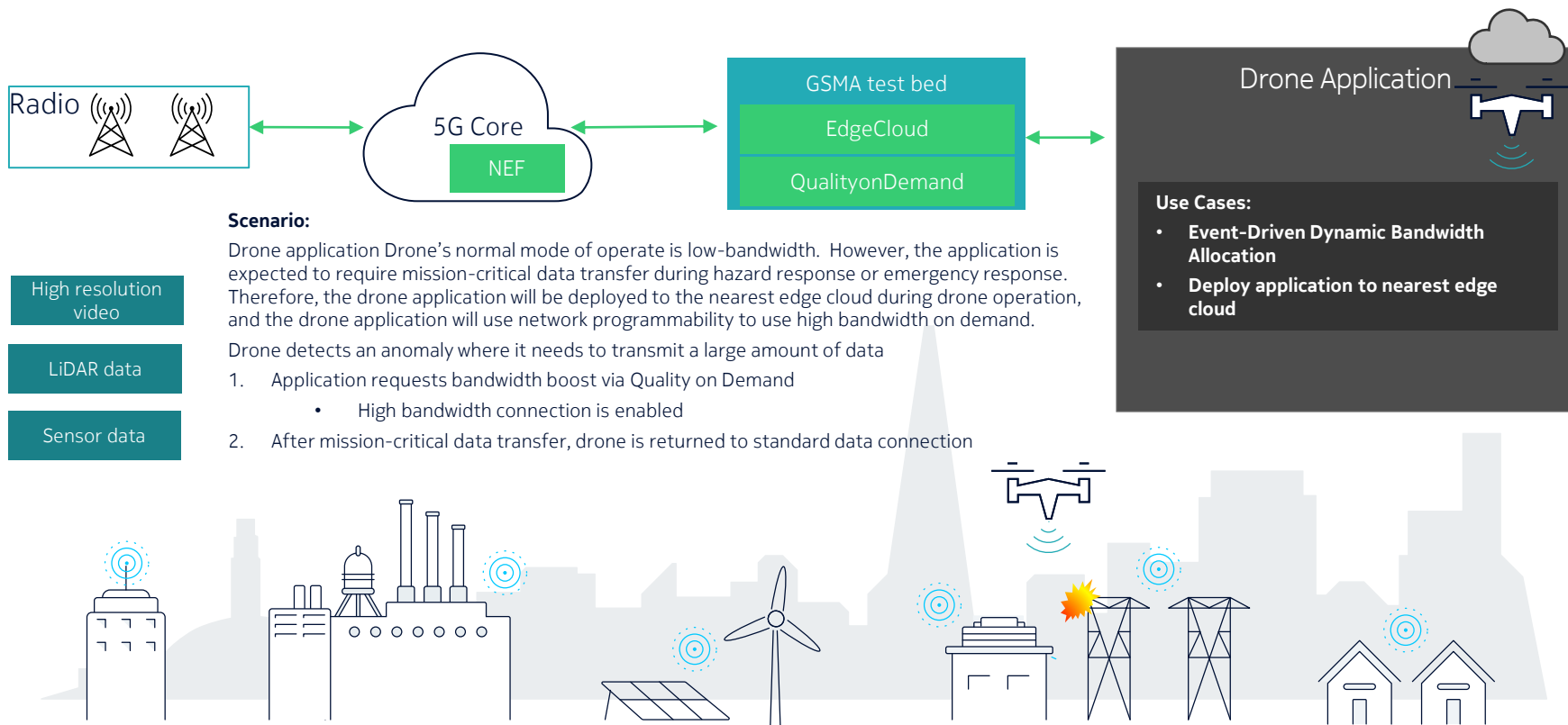
Use Cases:

- **Get device/user location**
- **Distance to device/user location**
- **Event-Driven Dynamic Bandwidth Allocation**





3. Drone application with mission critical data mode



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