



REAL-TIME ANALYTICS

# F1DRONE™

## FACT:

With the advent of 5G now upon us, using drones for selecting prospective sites and securing critical site look angles and signal coverage perspectives is vital. With so many sites to be constructed in the next few years.

## CHALLENGES

- (1) 5G use cases will require 10x lower delays and 100x faster data speeds. Estimated growth by 2025 100k sites to support 100 million subscribers.
- (2) Effectively managing of mobile cell towers, particularly those in remote locations which can be difficult to maintain. Comprising several pieces of equipment, including antennae, power generators, and surveillance cameras, these towers require continuous monitoring.
- (3) Operators currently use a variety of different tools for network modelling, planning, simulation, deployment, orchestration, and operational support activities. Most of these are used in isolation, and lack the capability to provide an historic, dynamic end-to-end view of the network, its services, and all their interdependencies.



## Solutions:

### DIGITAL TWINS

#### DRONE SITE SURVEYS

- Drones site surveys will be mission critical for cost savings and fast, efficient performance analysis.
- A digital twin, however, can bring together all these tools' capabilities to deliver accurate network inventory and user device data from live operations. By analyzing this wealth of data, a digital twin's powered by MOSS AI/ML capabilities can plot patterns, identify anomalies, predict faults, and take corrective actions dynamically.
- By viewing the digital twin as a replica of the tower, operations and field service management teams would then be able to address any issues that arise. What's more, as tower site technology tends to be multi-vendor, the insights provided by the digital twin could be shared as a service to the various equipment providers, thereby monetizing the data. *Aka PEER-TO-PEER Diffusion on the digital plane smiles.*
- Sharing technologies and insights rather than being a technology in and of itself, a digital twin is the confluence of several different technologies designed to deliver specific business outcomes. It brings together the assets of multiple technology vendors, equipment providers and systems integrators. The concept can create value for the operator. It is an approach that combines the intelligence, insights and powers of visualization and automation to succeed in an increasingly competitive and digital future.
- Operators and network equipment providers (NEPs) are in a strong position to use the digital twin model to manage their towers, cell sites and network architecture. They already have and use many of the necessary components, such as geolocation tools, predictive analytics, and the ability to map cityscapes in 3D. But no one telco or NEP can do it alone. Collaboration, and the sharing of technologies and insights between organizations is necessary to realize the potential of digital twin operations and field service management teams would then be able to address any issues that arise. What's more, as tower site technology tends to be multi-vendor, the insights provided by the digital twin could be shared as a service to the various equipment providers, thereby monetizing the data.

Powered by

M

modular

O

Operating

S

smart

S

systems

DIGITAL TWIN

