

The background is a night cityscape, likely New York City, with the Chrysler Building prominent on the right. A teal overlay covers the entire image. Overlaid on the teal are several concentric circles and lines, resembling a network or signal pattern. A large, curved teal shape sweeps across the top left. In the bottom left, there are several curved lines of orange and teal dots, suggesting a data or network flow.

OPENING KEYNOTE

Putting neutral host at the center of the next-generation network

From shared infrastructure to shared experience architecture

Abdulrahman Almoaiqel | TAWAL CCO

Small Cells World Summit 2026 | Pullman St Pancras, London | 2 June 2026



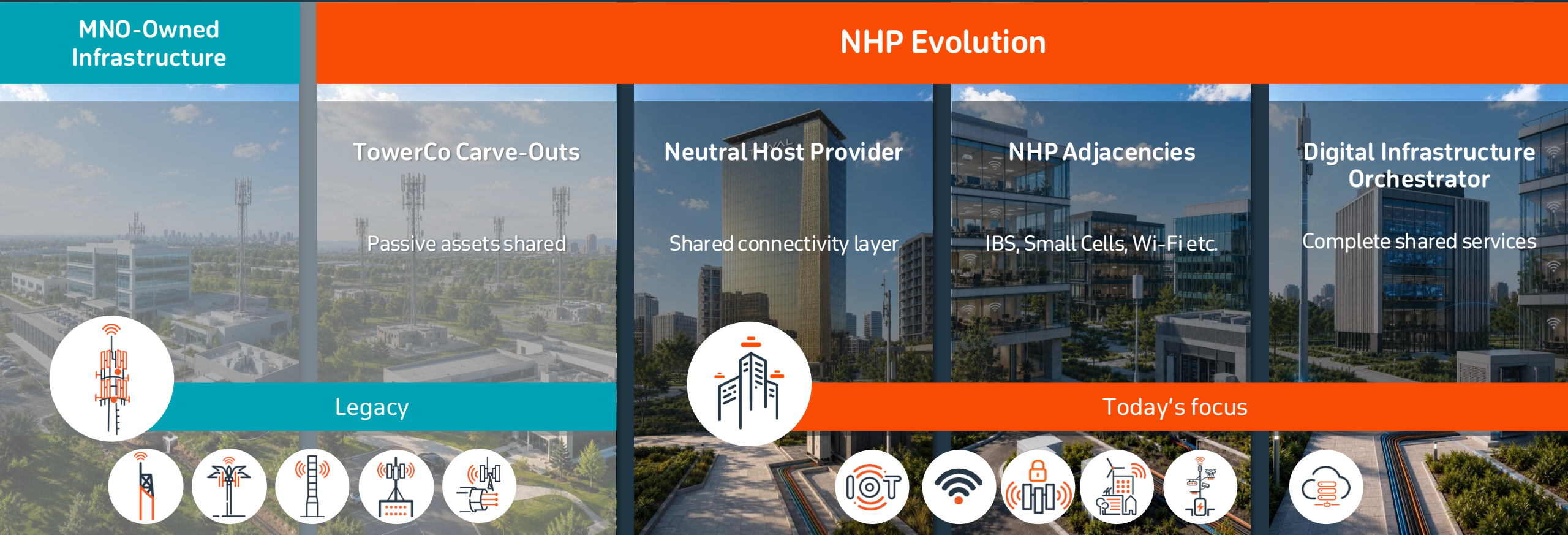
Speaker:

Abdulrahman Almoaiqel

Chief Commercial Officer **TAWWAL**



Neutral host is moving through its evolutionary phases. The discussion has moved beyond "who owns the site?" to "who orchestrates the shared connectivity layer?"



Outdoor sharing has matured, the **next frontier requires deeper alignment between NHPs and MNOs** to unlock indoor connectivity at scale.

Outdoor



Status Quo:

- Coverage targets are reached and growth opportunities are limited
- MNOs are reluctant to deepen the network sharing level



Indoor

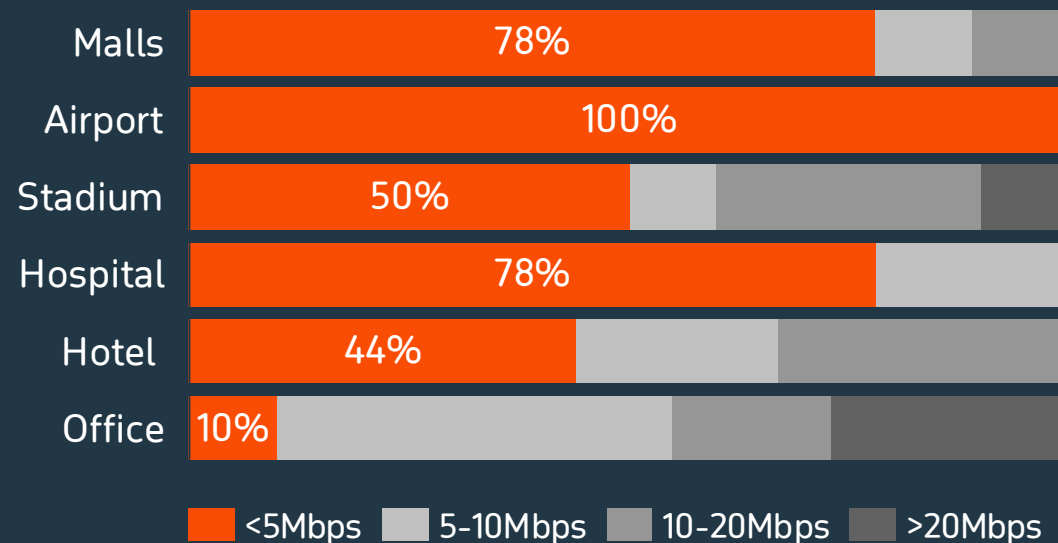


Status Quo:

- Low legacy IBS and Small Cells penetration enables clean-slate deployment at scale
- MNOs increasingly recognize neutral-host IBS as the preferred sharing model

The indoor connectivity gap creates a clear demand for shared infrastructure. **NHPs positioned to capture** it as regulatory support accelerates IBS and Wi-Fi deployment.

>70% of mobile use today takes place indoors...



...but cell edge user experience stays **poor** in many types of environment.



هيئة الاتصالات والفضاء والتقنية
Communications, Space & Technology Commission



7+
floors

1k+
users

3k+
sqm*

All **major projects must** include **Wi-Fi** and **IBS** infrastructure.

NHPs align incentives across operators and venue owners converting a compliance-driven burden into a **scalable shared-infrastructure** model.

White Paper



Strategic Advantage
of NHPs in Telecom
Evolution



Technology viability

Adequate network sizing and future readiness



MNOs adaptation

Multi-operator coordination and infrastructure duplication, O&M and SLAs



Commercial attractiveness (ROI)

Traffic is high, but revenues are fragmented, indoor coverage is often not prioritized



Funding burden

Connectivity may be mandatory, but it is not the venue's core business



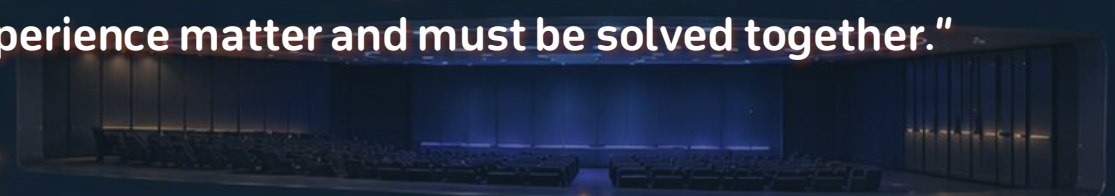
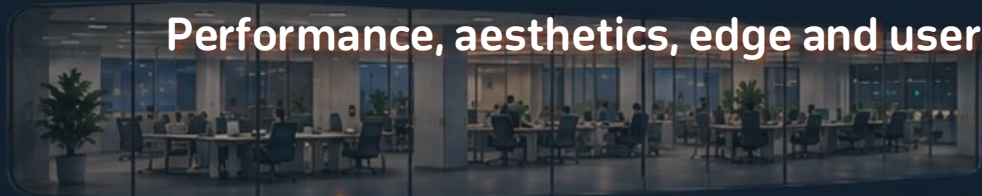
NHPs is the logical step forward:

- › **30–50%**
lower deployment cost
- › **Up to 40%**
faster rollout
- › **Up to 38%**
lower energy consumption



"Neutral host infrastructure for the next generation networks will be won inside venues, districts and real-estate assets.

Performance, aesthetics, edge and user experience matter and must be solved together."



The foundation of digital infrastructure assets and components, **enable NHPs to power related services and use cases** in the future.

Telecom

ICT

Opportunity - Use Cases



Passive

Physical assets like towers, IBS sites and electromechanical



Active

Electronics enabling signal transmission, such as antennas, core & spectrum



Backhaul

Fiber or microwave links connecting towers to the core network



IT Solutions

Connectivity, cloud, and IT systems for businesses and government



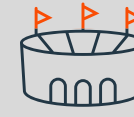
Cybersecurity

Protection of data, systems, and networks from digital threats



Edge Computing

Facilities that store, process, and manage digital information



Smart Venues

Connected venues enhancing fan experience and operations



Smart City

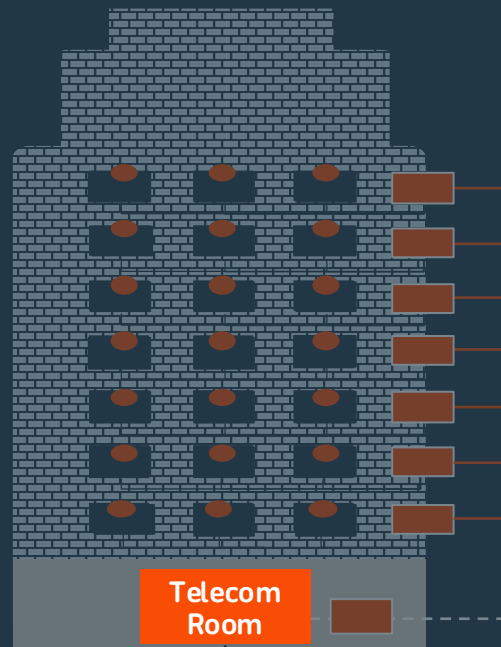
Urban systems using data to improve services and efficiency



Industry 4.0

Automation and IoT connecting industrial equipment and production

NHPs' existing footprint is a launchpad for the next level of **sharing beyond**.



In-Building Solutions

Nationwide reach

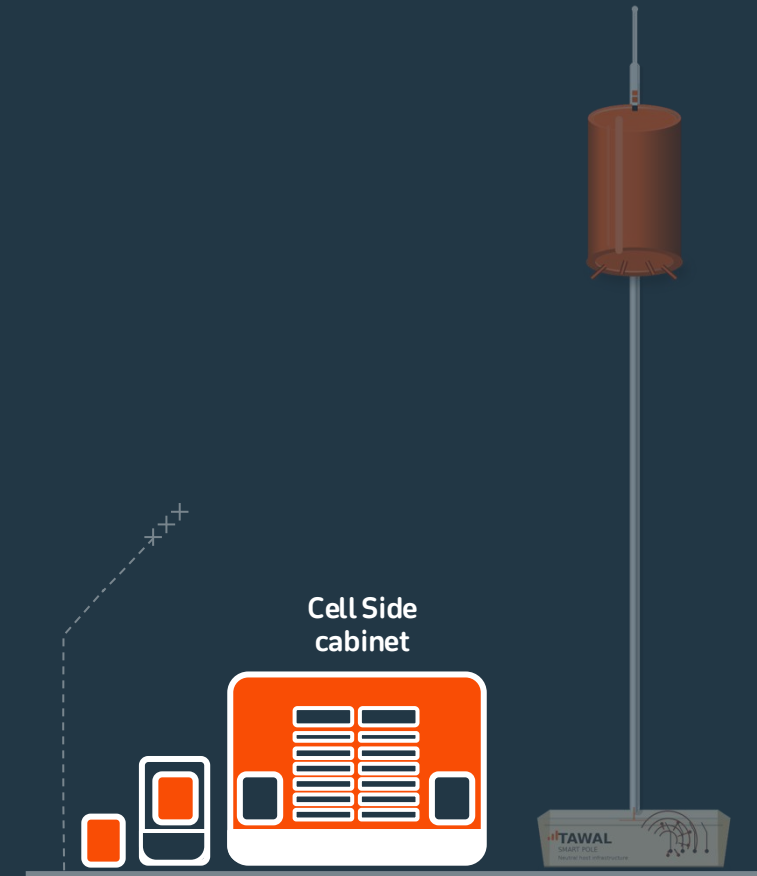
- Nationwide reach including cabinet space, power, backhaul, access rights

Prime indoor presence

- Stadiums, malls, airports, campuses, giga-projects

Edge-ready operations

- Telecom rooms, O&M, monitoring, partner ecosystem



Macro sites

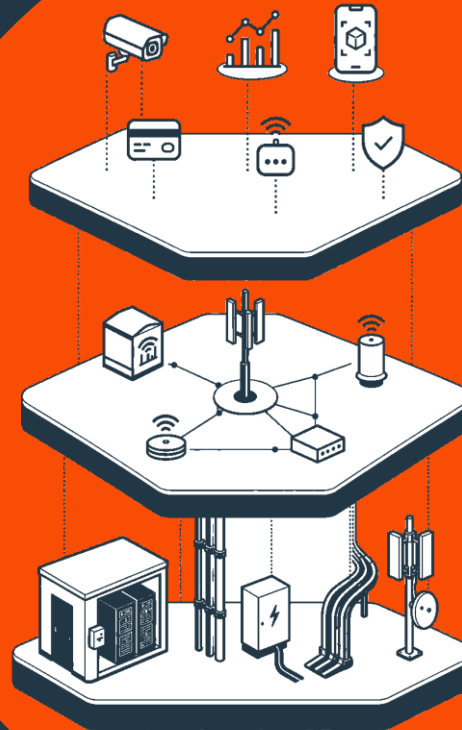
Sharing does not stop at passive and active network infrastructure - **telecom rooms become edge rooms.**

From telecom room...

- Multi-operator POI / active equipment
- Fiber handoff and backhaul paths
- Power, cooling and battery resilience
- Access control, O&M and security

...to shared edge node

- Venue applications and content caching
- AI video / safety analytics
- Private-network functions
- Low-latency service enablement



Experience & use-case layer

Edge powered use cases e.g. computer vision, analytics, AR, payments, IoT, safety, etc.



Connectivity service layer

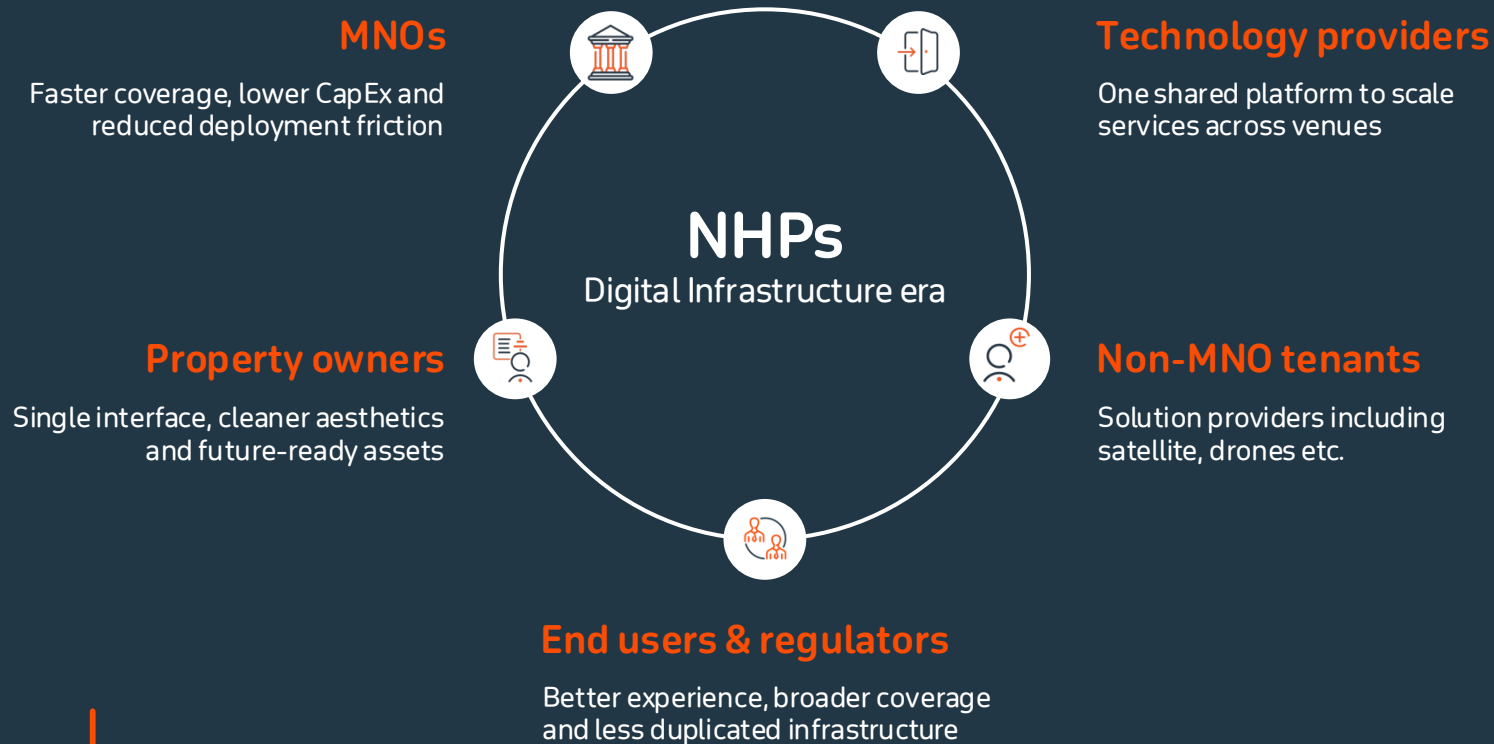
Network infrastructure, active DAS, small cells, Wi-Fi, private / hybrid networks



Common base layer

Rooms, risers, power, fiber paths, antennas, passive assets

Neutral host unlocks value for the whole ecosystem aligning incentives across parties that used to optimise separately.



Neutral host does not own every service. It enables a trusted shared layer others can innovate on top of.

We **UNDERSTAND** the needs of the venue owners

We **KNOW** the requirements of the operators

Our **GOAL** is to make broader shared infrastructure a success story

TAWAL playbook: **build once, share by design, evolve over time.** A neutral host must be both commercially fair and architecturally disciplined.



1

Start early

Enter at concept / master-planning stage, before rooms, risers and power are frozen.



2

Right-size the technology

Quantify the demand of the infrastructure and compute power by environment and use case.



3

Separate common layers

Share non-differentiating infrastructure while preserving service differentiation for MNOs.



4

Make rooms edge-ready

Design space, cooling, power and fiber for future compute and private / hybrid services.



5

Commercialize transparently

Link pricing to footprint, capacity, availability, upgrades and measurable SLAs.

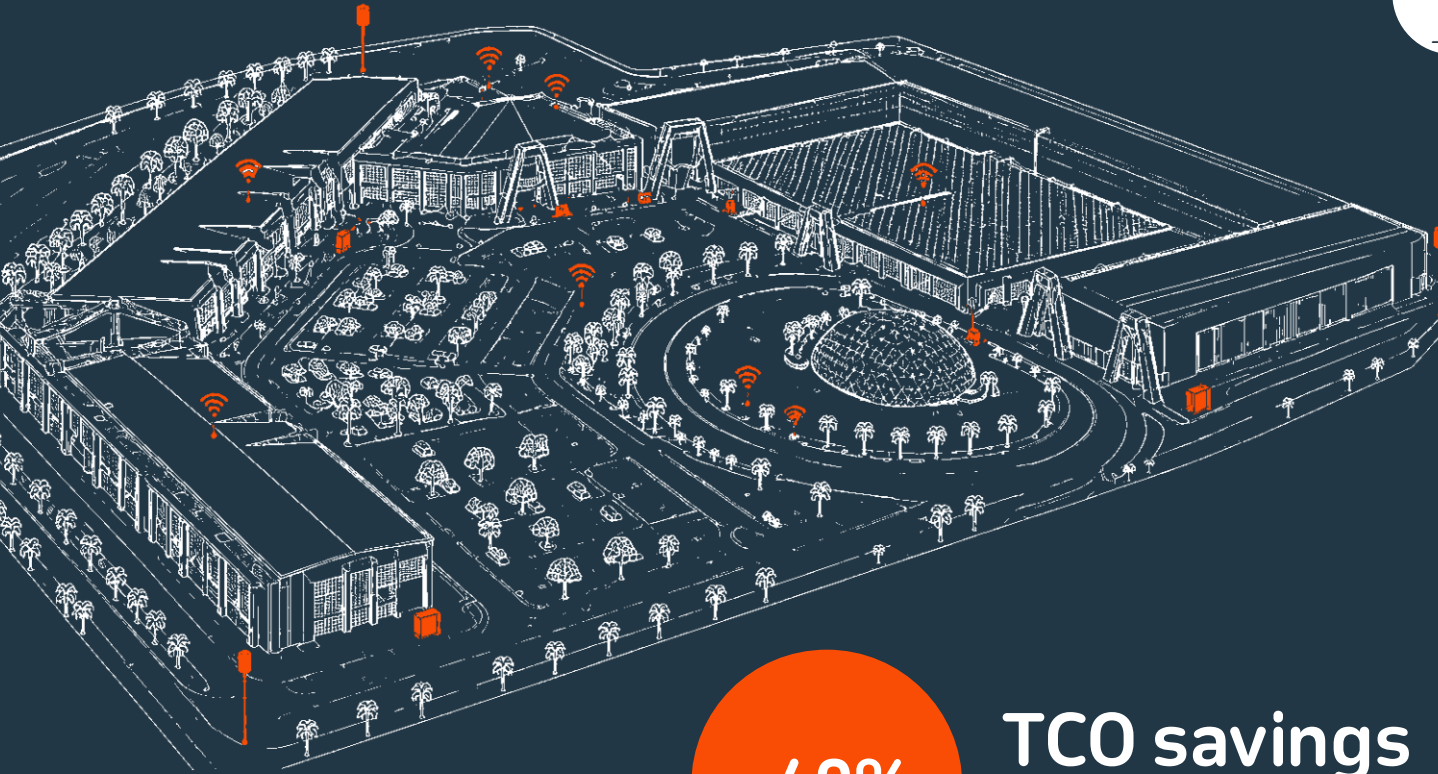


6

Operate for experience

Measure uptime, throughput, coverage parity and user journey quality — not only asset counts.

One Neutral Host platform **replaced multiplied operator infrastructure**, enabling shared mobile network, Wi-Fi and edge solutions at **~40%** lower ecosystem TCO.



~40%

TCO savings

vs. multiplied operator infrastructure



Shared mobile infrastructure

3 MNOs | 5 towers

IBS 198 antennas | 24 sectors



Wi-Fi deployment

287 APs | >20k users

>80,000 m² venue coverage



5G SA mmWave sharing PoC

Shared high-capacity indoor 5G

26 GHz active sharing



Edge-AI ready platform

Computer vision & smart venue use cases

Localized edge compute



Shareable OpenRAN PoC

Active RAN & edge-cloud sharing

Future multi-tenant architecture



Not "largest possible networking infra"

Right-fit, sharable, upgradeable
infrastructure designed around
lifecycle value.



Outdoor Coverage

Colocation

Built-to-Suit

Flexi Tower



Indoor Coverage

In-Building Solutions

Wi-Fi



Smart Infrastructure

Smart Colocation

Smart Pole

Smart Kiosk

EV Charging



Coverage-as-a-Service

Outdoor mobile

Indoor mobile



Backhaul-as-a-Service

Fiber to Tower

Microwave to Tower



O&M-as-a-Service

Tower Operations Center

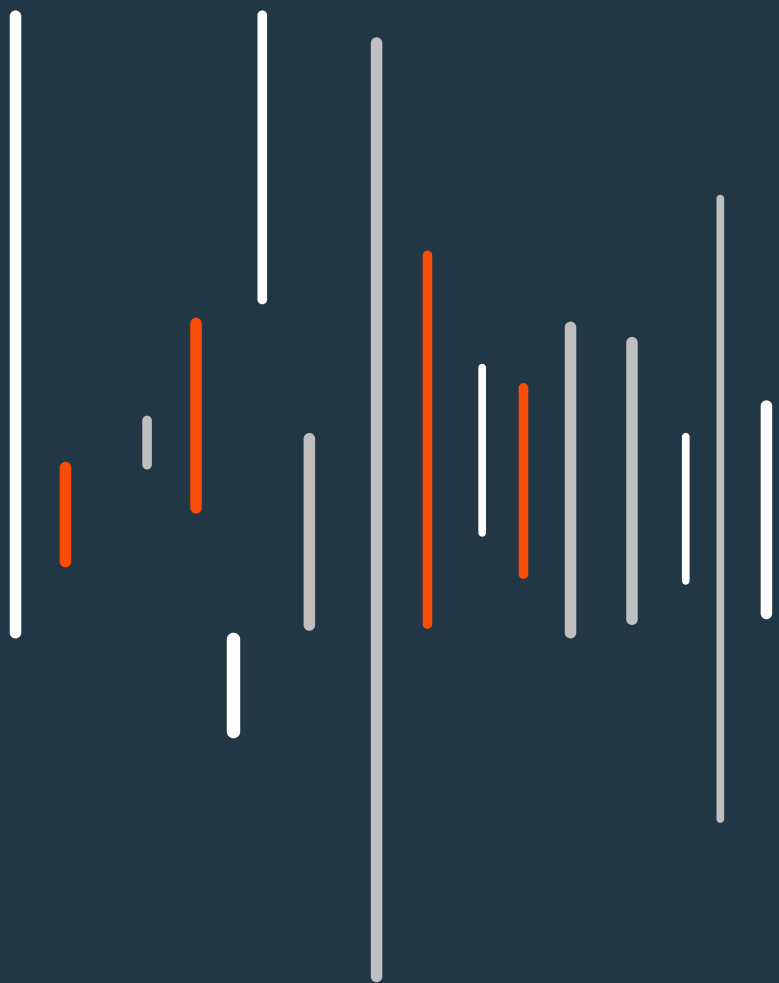
Field Operations



New Services

Private Networks

Edge Computing



THANK YOU!