

# Transforming in-building wireless connectivity: the rise of software-based models

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## The shift of in-building networks: decoupling infrastructure and services

As wireless technologies continue to evolve and demand for seamless indoor connectivity grows, the focus of in-building connectivity solutions is shifting.

Businesses and venues increasingly require networks that support advanced use cases such as IoT integration and smart building systems, resulting in a growing opportunity to rethink how these networks are deployed and managed.

Connectivity services are focusing more on end-user experience, designing software-based solutions, and decoupling their business model from infrastructure deployment. This separation offers scalability, flexibility, and the ability to quickly adapt to new technologies and customer demands.

Connectivity specialists leverage both proprietary and third-party infrastructure, but their true value lies in simplifying access to diverse network architectures, integrating multiple in-building connectivity technologies.

### Key technologies driving in-building wireless connectivity

In-building connectivity solutions today make use of a variety of technologies and come in different configurations, including:

- *DAS (Distributed Antenna Systems)*: multi-carrier coverage using a network of antennas that enhance public mobile LTE/5G coverage and capacity, ideal for large venues such as airports, stadiums, and shopping malls
- *Private 5G networks*: high-performance, low-latency networks either using shared or private spectrum, tailored for industries requiring dedicated connectivity, such as manufacturing or logistics hubs
- *Managed Wi-Fi*: Wi-Fi as a Service that covers management and connectivity, in which the operator designs, installs, monitors and maintains the Wi-fi network



# Leveraging technology-agnostic platforms to unlock growth

Different technologies adapt to various requirements. By focusing on technology-agnostic services, connectivity specialists offer tailored connectivity without additional complexity for the end user, while maintaining a uniform value-added service portfolio. Boingo, for example, offers private 5G, DAS, and managed Wi-Fi.

Platforms built with software-first principles can support multiple connectivity standards – including Wi-Fi 6/7, LTE, Li-Fi, and 5G – while offering unified management layers, simplifying the integration of emerging technologies and becoming future-proof.

Specialists leverage both their own and third-party networks, including those of ISPs. As specialists focus on in-door connectivity, we expect that deploying infrastructure will become less important, which could drive future divestments as with ISPs' telecom towers and data centres and cloud providers' infrastructure (IBM's Kyndryl divestment, for example).

## Decoupling as a competitive advantage

Prioritising software-based network orchestration and outsourcing infrastructure allows specialists to:

- *reduce costs* by minimising reliance on infrastructure upgrades and focusing on scalable software solutions
- *expand revenue streams* through innovative value-added services that cater to specific business or industry needs
- *easily adapt to future technologies* by integrating support for emerging standards without requiring extensive changes to existing networks or IT infrastructure

As the market shifts from infrastructure deployment to specialised, software-driven offerings, businesses have an unprecedented opportunity to capitalise on this evolution.

At Fide Partners, we understand the complexities and opportunities within the in-building wireless sector. With deep expertise in market dynamics and strategic decision-making, we can help you navigate this dynamic landscape and unlock growth.

Connect with us, and let's explore how we can work together to achieve your goals in the rapidly evolving world of in-building connectivity.

## Contact:



**Mobile:** +34 665 491 356

**Mail:** guillermo.fernandez@fidepartners.com



**Mobile:** +34 671 036 638

**Mail:** hadrien.carparelli@fidepartners.com

### London:

Aldwych House  
London, WC2B 4HN, UK

### Madrid:

C/Don Ramón de la Cruz, 6, 1º  
28001 – Madrid, Spain

### Bogotá:

Carrera 11A #98-50  
Ofc. 704, Edificio Punto99  
110221, Bogota, Colombia

### Boston:

50 Milk Street,  
Planta 15, C.P. 02109.  
Boston, MA, USA