

5 minutes to understand

the benefits of WiFi in PBSA



Why do we need a quick guide?

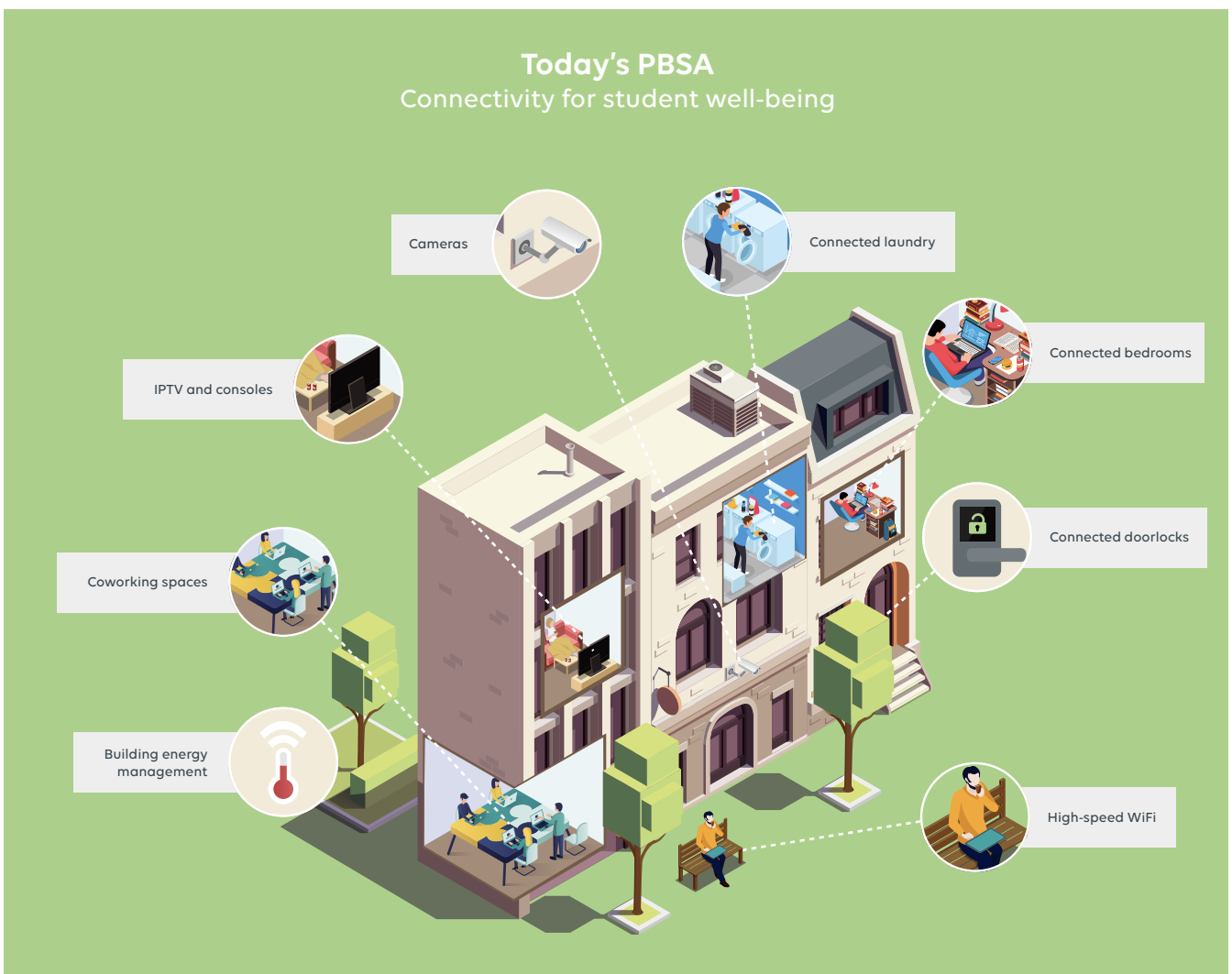
More than ever, student accommodation professionals need an Internet network that meets the expectations of their residents.

The challenge of connectivity now goes beyond WiFi alone, with the integration of connected services that improve the well-being and safety of students, while facilitating the work of staff.

The network must also be a driver for optimising the energy consumption of the building, in particular through the use of IoT technologies.

There are many challenges in responding to these issues and this paper provides an introduction to the 5 main ones.

Enjoy the read!



// CHALLENGE N°1: PERFECT QUALITY OF SERVICE AT PEAK TIMES

How is it a challenge?

The student population is the biggest consumer of bandwidth: students consume an average of 250 Gigabytes (GB) per month. 20% of them spend more than 35 hours a week using the internet!

In residences, there are significant peaks of activity between 4pm and 1am. During this period, up to 90% of students are connected simultaneously, notably for heavy usage, such as video streaming

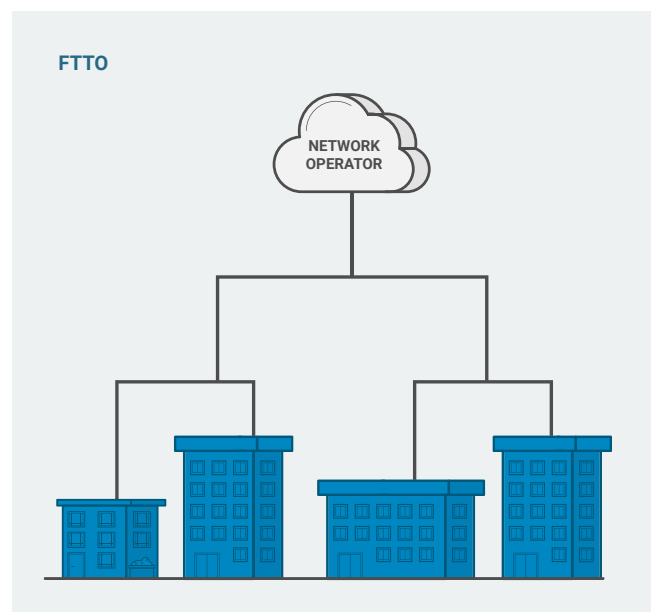
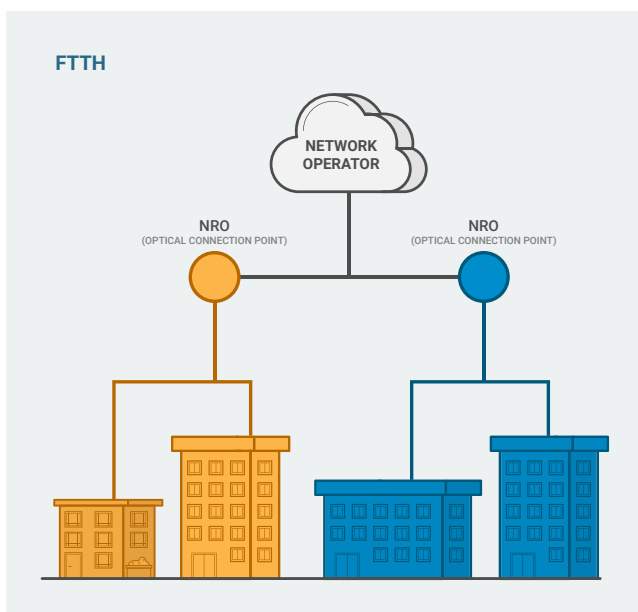
How do we meet the challenge?

The residence needs to be connected to a dedicated professional fibre line with a guaranteed symmetrical speed (FTTO). A "general public" fibre line (FTTH) is not sufficient to absorb both the students' uses and the residence's connected services (office automation, telephony, cameras, locks, etc.).

Quality of Service (QoS) must be optimised to distribute throughput dynamically and intelligently between different users and uses. The QoS policy should be adapted to the specific needs of the PBSA and incorporate advanced features such as fairness, dynamic prioritisation of flows and segmentation.

The main differences between FTTH pro and FTTO

	FTTH Pro	FTTO
Guaranteed throughput	No	Yes
Symmetric flow	No	Yes
GTR	24H (option)	4H



// CHALLENGE N°2 : OFFER A CONNECTION EXPERIENCE BETTER THAN A "PRIVATE BOX"

How is it a challenge?

In traditional student networks, devices cannot communicate with each other via WiFi.

For obvious security reasons, a student should not be able to "see" his neighbours' smartphone. To meet this challenge, traditional networks dedicate a virtual subnet (VLAN) to each terminal. In practice, this does not allow students to use their numerous devices as is possible with private "boxes" (e.g. smartphones, PCs, printers, speakers and consoles).

How do we meet this challenge?

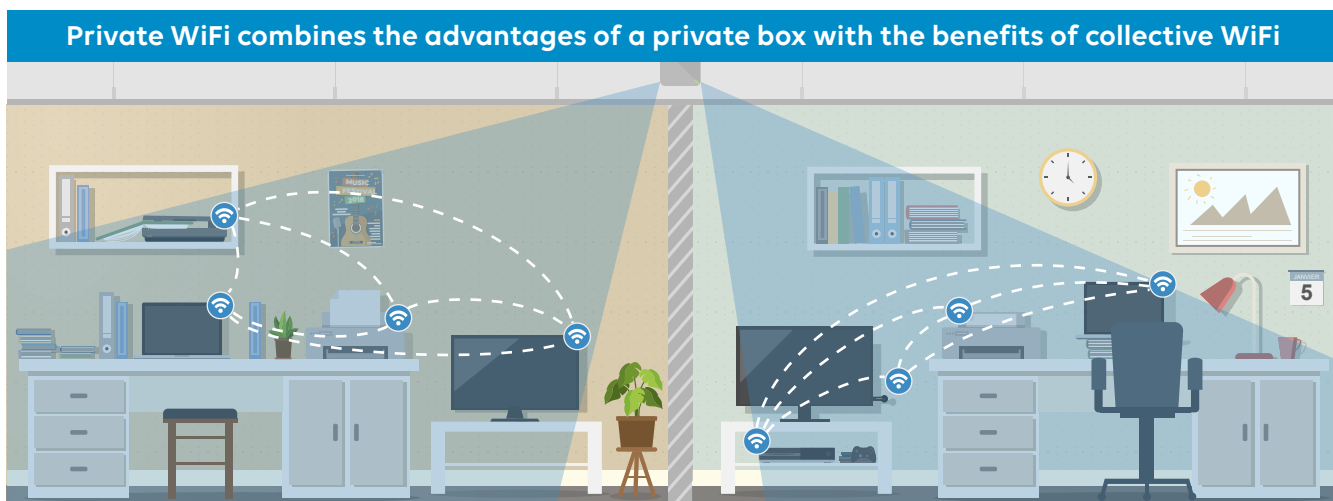
Network segmentation should be done at the user level and not at the terminal level.

The private WiFi technology developed by Wifirst allows for the creation of secure connection bubbles, home by home, as with a private box.

Private WiFi thus offers the advantages of a private box (simplicity and multi-equipment connection) while retaining the benefits of collective WiFi (sharing and mobility).

Students connect to the secure network in their room with an individual password. They can use a WiFi printer, listen to music with a connected speaker and connect their consoles.

	Private box	Classic network	Private network
Multi-device connection	○	×	○
Device mutualisation	×	○	○
Connected throughout the residence	×	○	○



// CHALLENGE N°3 : CUT COSTS

How is this a challenge?

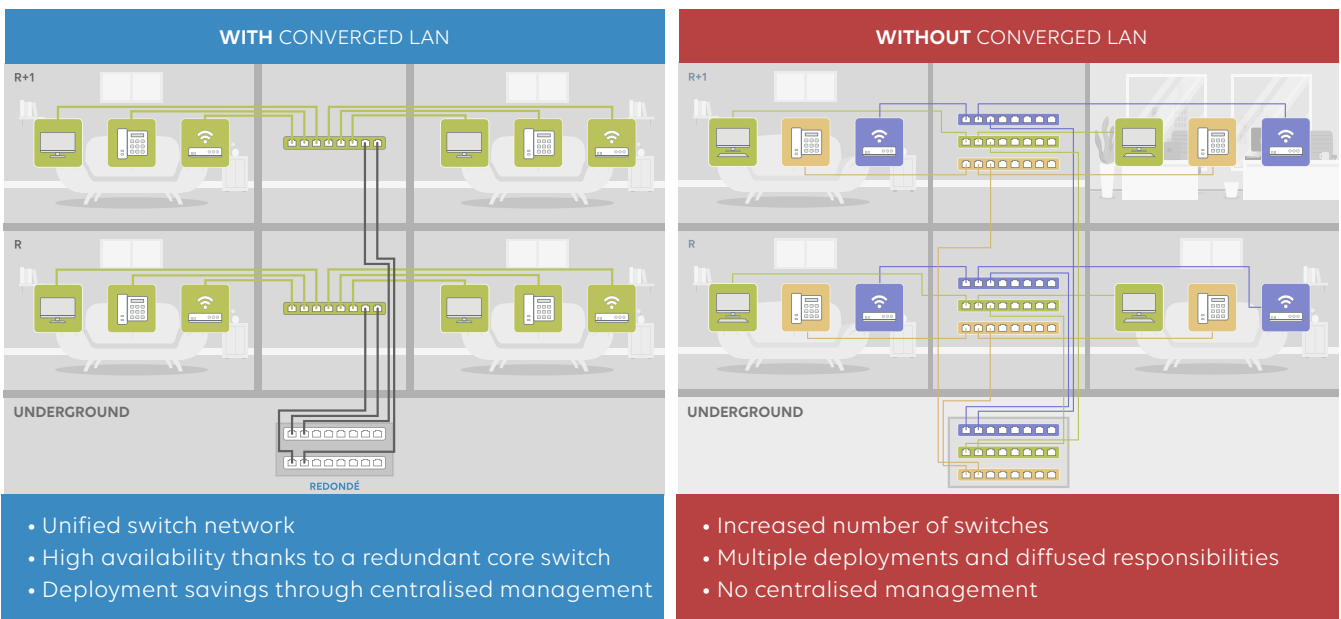
In many residences, the connected services are connected on separate networks, generating **unnecessary costs**: a primary network dedicated to student WiFi, a second network for telephony, a third for office automation, others for cameras, locks, etc.

For each of these networks, a deployment project must be organised and physical infrastructure **deployed**, causing more operational disruption, more bills and more environmental impact than necessary.

How do we meet this challenge?

The solution is to **deploy a unified network that connects all the services and users in the residence**. By deploying only one network, you only pay for one deployment and one infrastructure instead of 2, 3, 4 or more!

In addition to **costing less, the unified network reduces the carbon footprint of the residence**. By reducing the number of pieces of equipment and the number of trips to the building site, the unified network reduces your environmental impact. Less equipment to power and less material to build and deploy: a simple way to combine economic and environmental performance.



// CHALLENGE N°4 : SIMPLIFY OPERATIONAL MANAGEMENT

How is this a challenge?

Residence professionals do not have time for network management.

From design and configuration, to deployment, maintenance and user support... Network management is time consuming and the list of tasks to ensure a quality service is never ending!

Student accommodation professionals do not have sufficient resources or expertise to deal with the technical complexities.

In addition to being time-consuming, the various components of the network require specialised expertise in radio analysis, maintenance and cyber security.

How do we meet this challenge?

Relying on a specialised partner to offload teams and provide the right level of expertise is the first answer: outsourcing is essential to allow accommodation professionals to focus on their core business while delivering an optimal service to students.

Being supported by a single provider for WiFi, fibre and connected services in the residence. Having a one-stop shop for connectivity puts an end to "ping pongs of responsibility between providers".

The components of WiFi management: time-consuming and complex



NETWORK DESIGN



INSTALLATION OF THE NETWORK



USER SUPPORT & HOTLINE



INFRASTRUCTURE MAINTENANCE



NETWORK SUPERVISION



INCIDENT MANAGEMENT



UPDATE & INTEGRATION OF INNOVATIONS

// CHALLENGE N°5 : GUARANTEEING NETWORK SECURITY

How is this a challenge?

The provision of a public network must be done within a precise technical and legal framework. In particular:

- The General Data Protection Regulation (GDPR)
- The Digital Economy Act (DEA), implemented in 2017 and addresses policy issues related to electronic communications infrastructure and services, and updates the conditions for and sentencing of criminal copyright infringement
- The law on the fight against terrorism of 23 January 2006, which imposes the collection of "traffic data", their conservation for one year and transmission to the judicial authorities in case of request.

How do we meet the challenge?

Rely on an operator capable of guiding you towards full compliance with cybersecurity and regulatory issues. The objective: to protect your students and relieve you of legal responsibilities.


Make sure that your partner can handle the following items, among others:


- Offcom declaration
- The conservation of traffic data (logs)
- Processing of live court orders
- ISO27001-compliant ISMS (very strong guarantees on data protection)
- Firewall to protect the residence from external threats
- Segmentation of network flows





Wifirst is ISO 27001 certified for all of its key services: installation, operation, infrastructure supervision, managed networks (WiFi, LAN, WAN, SDWAN), provision of internet access and services.


THE 5 CHALLENGES OF WIFI IN STUDENT RESIDENCES, AT A GLANCE

-  **Challenge 1: Guaranteeing perfect quality of service at peak times**
Connect the residence with a dedicated professional fibre line, with a guaranteed symmetrical flow. Optimise the quality of service by distributing the flow in a dynamic and intelligent way.

-  **Challenge 2: Provide a better connection experience than a "private box".**
Implement network segmentation at the user level, not the endpoint level, to allow your residents to connect all their devices easily and securely.

-  **Challenge 3: Reduce costs**
Deploy a unified network to connect all services and users in the residence: the ideal solution to reduce your residence's financial and energy bills!

-  **Challenge 4: Simplify operational management**
Rely on a specialist partner to take the burden off the staff and provide the right level of expertise. To avoid ping-ponging responsibilities, choose a single provider for WiFi, fibre and connected services.

-  **Challenge 5: Ensure network security**
Rely on an operator capable of assisting you in achieving full compliance with cybersecurity and regulatory issues.

To discuss each of these points with one of our engineers and address your connectivity challenges, simply [contact us!](#)

3 REASONS TO CHOOSE WIFIRST FOR YOUR RESIDENCE'S CONNECTIVITY

1 Choose the experience

Wifirst is the European leader in WiFi as a Service in the PBSA, providing students and staff with perfect WiFi, everywhere and all the time.



2 Choose simplicity

Choosing Wifirst means benefiting from a turnkey solution, with no "hidden costs": Wifirst integrates a 4-hours GTR, a hardware cost and labour warranty and a 24/7 staff and customer hotline at no extra cost.



3 Choose financial and energy efficiency

Wifirst's solution allows you to reduce your costs thanks to a shared and scalable infrastructure.

Since 2002, Wifirst has been connecting student residences. The ever-increasing demands of students have pushed us to offer a technical and human solution to meet their connectivity needs, in order to keep our promise:

A high quality of service everywhere, all the time and for all connected services.

To find out more about us, visit www.wifirst.com/en/student-accommodation

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