Secure and innovative WiFi solutions for your establishments

SENIOR RESIDENCES AND NURSING HOMES

![Wifirst logo]

wifirst

WHY A GUIDE TO WIFI IN CARE HOMES?

In care homes, new technologies make it possible to both reduce the isolation of residents and to facilitate the work of professionals.

Video calls with families, telemedicine, home automation systems, automated pill dispensers... the list of innovations that improve the well-being of the elderly while optimising the working conditions of care home staff is growing.

These different applications have one thing in common: they require efficient and secure internet access.

Sometimes neglected, the WiFi network nevertheless constitutes the backbone of all projects aiming to put technology at the service of dependent older adults, their families and the professionals who care for them.

This guide aims to inform decision-makers in the care home sector on good practices to adopt for setting up or improving their WiFi network.

1

The objectives of WiFi in care homes

1.1

For residents

Maintaining ties with loved ones

By guaranteeing quality video and audio calls outside of physical visits. Maintaining ties to the family is indeed an essential factor for successful integration into a care home.

The WiFi network must provide sufficient speed in all parts of the establishment, especially in the rooms, to guarantee the privacy and autonomy of residents when they want to chat with their loved ones.
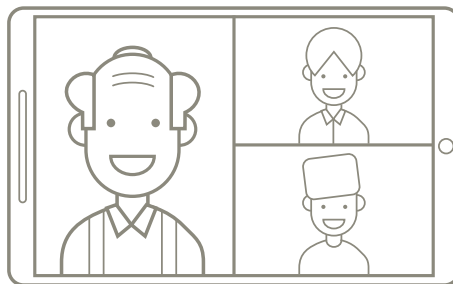
Reducing isolation and enriching daily life

By offering a quality audiovisual experience and reliable, simplified internet access.

The simplicity of the connection to the WiFi network (more intuitive and readable interface with simplified menus, larger characters etc.) is crucial for internet use by seniors. However, the network must also be able to support the broadcasting of conventional television, which remains their preferred medium, with an average of 7 hours 40 minutes spent watching TV per day.

1.1
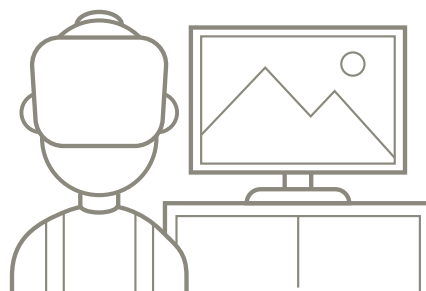
For residents

Improving comfort and security

By facilitating the integration of the tools selected by professionals and residents' families.

Comfort: to respond to residents' mobility difficulties while freeing up time for caregivers, home automation systems offer care homes a variety of solutions. The bedroom environment can thus be centralised via a single remote control or an intelligent assistant which allows people with reduced mobility to control the lights, temperature or even the shutters, without having to move, thus reducing the risk of personal injury. The WiFi network of care homes must, therefore, make it possible to recreate a "connection bubble" specific to each room to address the security constraints of traditional collective networks, which by default prevent several devices from communicating with each other.

Security: maintaining a balance between the residents' need for freedom and compliance with safety guidelines is critical for care home managers. Connected services such as fall detectors and wander control devices are helpful tools to support care homes while also encouraging resident independence. With this in mind, the WiFi network must allow simple but completely secure integration of these innovative devices.

Enabling better medical care:

Thanks to telemedicine, which provides teams with remote support, in particular for monitoring chronic pathologies. Telemedicine is a major lever for addressing the health needs of residents and for coping with the shortage of medical expertise faced by care home managers. Complementing physical consultations, it improves the quality of health monitoring and avoids unnecessary hospitalisation. The WiFi network must offer the best possible teleconsultation experience to integrate this long term in the treatment process.
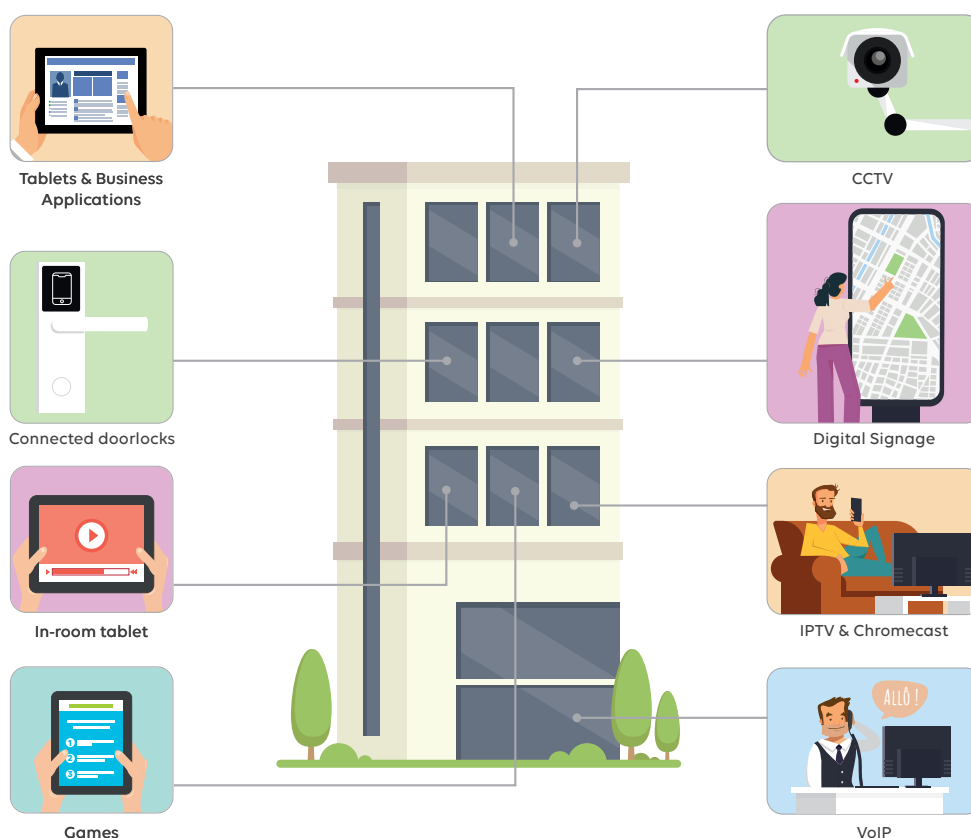
1.2
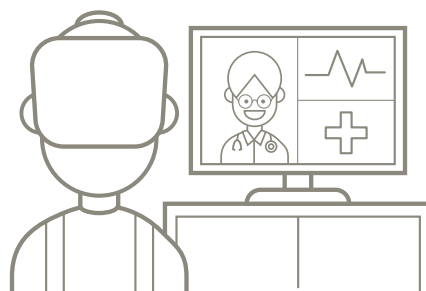
For professionals

Staff shortages caused by recruitment difficulties and high turnover can leave care home managers with few levers to improve the working conditions of carers. Technology is one of them.

Reducing workload

the deployment of technology intended to automate tasks with low added value and the generalised use of tablets for administrative management tasks encourages mobility and time saving, time which can be devoted to strengthening relationships with the residents. A suitable WiFi solution must, therefore, guarantee total continuity of service in all parts of the building so that digital tools can be used without interruption.

Facilitating access and information sharing

Mobile solutions enable the collection and consultation of live data from residents. In addition to the significant time saved, they guarantee the reliability of the information recorded, notably residents' vital signs. As these solutions are increasingly hosted on the internet, the WiFi network must offer all the guarantees of security and high availability inherent to the framework of a health service setting.

Tablets & Business Applications

CCTV

Connected doorlocks

Digital Signage

In-room tablet

IPTV & Chromecast

Games

VoIP

1.3 Managed WiFi: a turnkey network service for care homes

OPERATIONAL EXPERIENCE

We understand how precious time can be for care home staff. It is therefore essential to be able to rely on a trusted WiFi partner to allow teams the time to devote themselves entirely to their core business: welcoming and caring for residents.

Operational teams cannot face the complexity and difficulties inherent to managing a professional WiFi network alone, which is critical for the day-to-day functioning of a care home.

What is managed WiFi?

Managed WiFi or "WiFi as a Service" consists of entrusting an operator with the deployment and management of a WiFi network built to serve your business. Wifirst is a pioneer of WiFi as a Service taking care of absolutely everything for its customers: on-site WiFi surveys, installation of equipment, connection to the internet, the configuration of resident and business WiFi networks, monitoring and maintenance, customer services, simplified connectivity portal and tracking interfaces.

EVOLUTIONARY SERVICE

SECURITY

TV & PHONES

AUDIT

CUSTOMER EXTRANET

DEPLOYMENT OR INSTALLATION

QOS MANAGEMENT

HOTLINE 24/7

MAINTENANCE

SUPERVISION 24/7

2

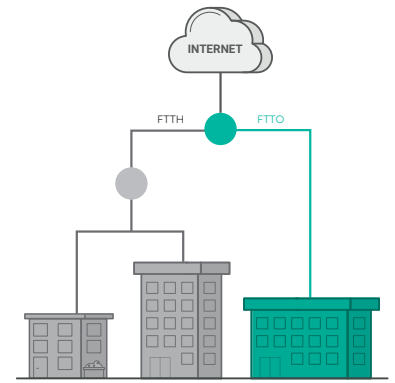# The technical basics of professional WiFi networks within care homes

2.1 Professional Fibre, dedicated to your care home

OPERATIONAL EXPERIENCE

To provide residents with the ability to communicate with loved ones easily, and to ensure total continuity of service for care staff, **FTTO (Fibre To The Office)** is the recommended solution.

Residential Fibre, FTTH (Fibre To The Home) is typically provided to homes and businesses who want to have fast internet access, but who also recognise that internet access is not an essential service. With this in mind, FTTH subscribers must accept that there will be periods when the internet runs slowly, or indeed stops working all together during outage periods. The service is also shared between multiple buildings within the same geographical area, and so the internet access speed will continuously fluctuate from one hour to the next, with no service consistency. FTTO or Fibre Leased Lines on the other hand, are a dedicated service, exclusively for the subscribing business. Your internet speed is guaranteed, irrespective of other businesses and homes. Even if the whole country were to stream an online football match, your dedicated connection provides you with the assurance that you will always have reliable, fast access, 24 hours a day, 365 days a year.

A single WiFi and Fibre service provider

To avoid some of the difficulties that can arise from having to liaise between multiple suppliers, and to prevent different service providers from playing the blame game, Wifirst is your single point of contact for both WiFi and Fibre services.

We have our own core network that allows us to provide a turnkey Fibre Leased Line solution, which includes, among other things, surveys, connection to the network, monitoring and a guaranteed recovery time, wherever you are in the country.

Our core network allows us to provide end-to-end control of data in the residence and optimise speed of access so that the best service possible is always provided to internet users.

CUSTOMERS

BACKBONE

CONTENTS

Direct connection

Indirect connection

Other content providers
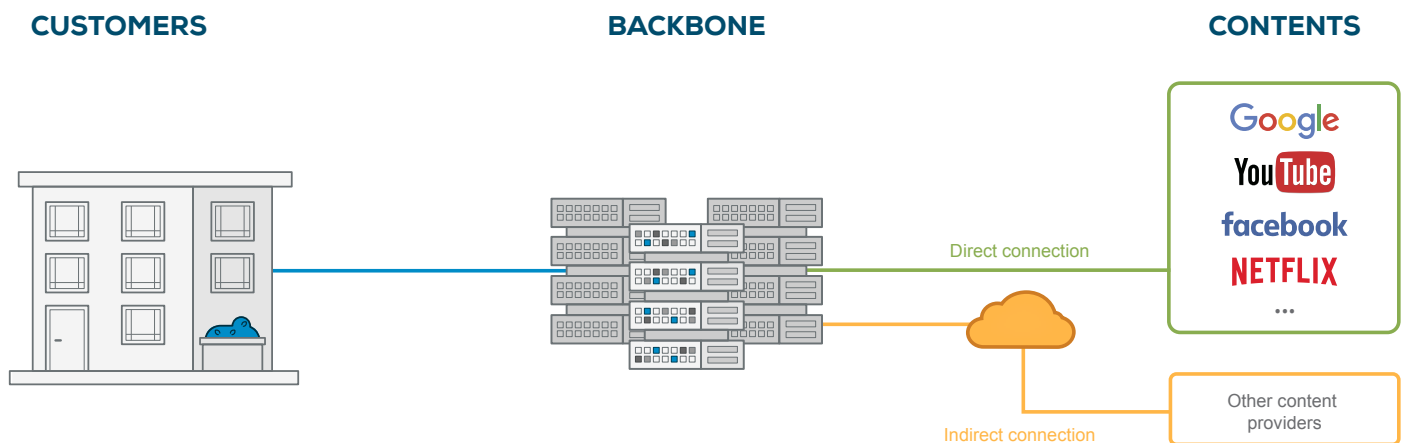
2.2 Surgical precision roll-out of Wireless Access Points

Providing WiFi access in just the common living spaces does not allow privacy for residents. It is important to provide ample WiFi coverage throughout the building to facilitate staff mobility, but also within resident rooms to make sure they can communicate with loved ones comfortably.

Optimal WiFi coverage isn't achieved by simply installing additional wireless access points wherever there is an area of low coverage. Network distribution is, in fact, a complex and precise procedure which requires careful planning. Having too few wireless access points will create areas without coverage while installing too many will cause excessive interference causing unstable connection issues.

Unparalleled technical expertise in WiFi audits and wireless access point configuration

Over 17 years of WiFi technology experience have enabled us to develop an extraordinary amount of expertise which is of paramount importance for correct network optimisation. To ensure that we provide the best possible service, every audit is completed:

- By Wifirst employees, trained in WiFi configuration architecture of various environments
- Using dual-band WiFi frequency (2.4GHz and 5GHz)
- Utilising an in-house application, under "real" conditions: with a smartphone comparable to your residents devices
- With the utmost respect for the environment: our auditors are experts in working discreetly, without causing any inconvenience to your residents.

2.3 Network intelligence: several audiences, several networks

The connectivity needs for different care home users are very varied. The WiFi network must be able to support applications such as video conferencing between residents and their families, video streaming in common areas and the use of cloud-hosted applications for staff.

The coexistence of these different types of users implies the need for separation of the "resident", "staff" and "admin" networks and therefore customised management of access modes adapted to each user profile.

Wibox: the "Internet gateway" dedicated for professional use

The Wibox is a piece of hardware developed by Wifirst to centralise the intelligent management of your professional network. It plays the role of a gateway adapted to the specific security and flexibility requirements of the care home environment.

Quality of service management algorithms

- Bandwidth management, fairness between users
- Dynamic classification and optimisation of all network traffic
- Bandwidth management for specific VLANs (Admin network for example)
- Support failover and service resilience

User authentication and legal protection

- Identification of users and management of their access profiles
- Traceability of connections in compliance with legal requirements
- GDPR and PCI compliant

Network and security

- Equipment monitoring
- DHCP server and DNS relay
- Security: firewall & network partitioning
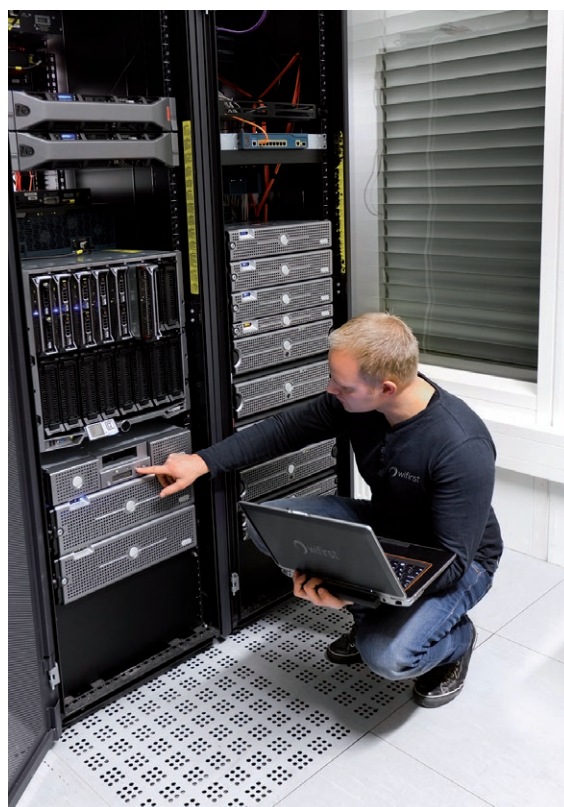
# 2.4 A connection experience "like at home", and open to innovations

In a standard WiFi architecture, all users are on the same network (same VLAN) and traffic segmentation is activated by default for security reasons: in practice, this means that connected devices cannot see each other on the same network.

This "conventional" operation of public WiFi is limited in terms of the needs of care homes to allow communication of devices such as home automation or fall sensors, and also residents devices such as tablets, phones or wireless speakers.

Private WiFi like at home

The innovative concept from Wifirst is to create a secure connection bubble for each accommodation unit to reproduce a connection experience «like at home».

We have succeeded in developing technology based on the Ruckus Wireless architecture, we call "Room Area Network". While retaining a collective WiFi physical network, users can connect to a secure network dedicated to their room. With an encrypted WiFi password, each resident can listen to music easily on WiFi speakers, connect to their television to stream content, or even connect their phone to the home automation system for their room.
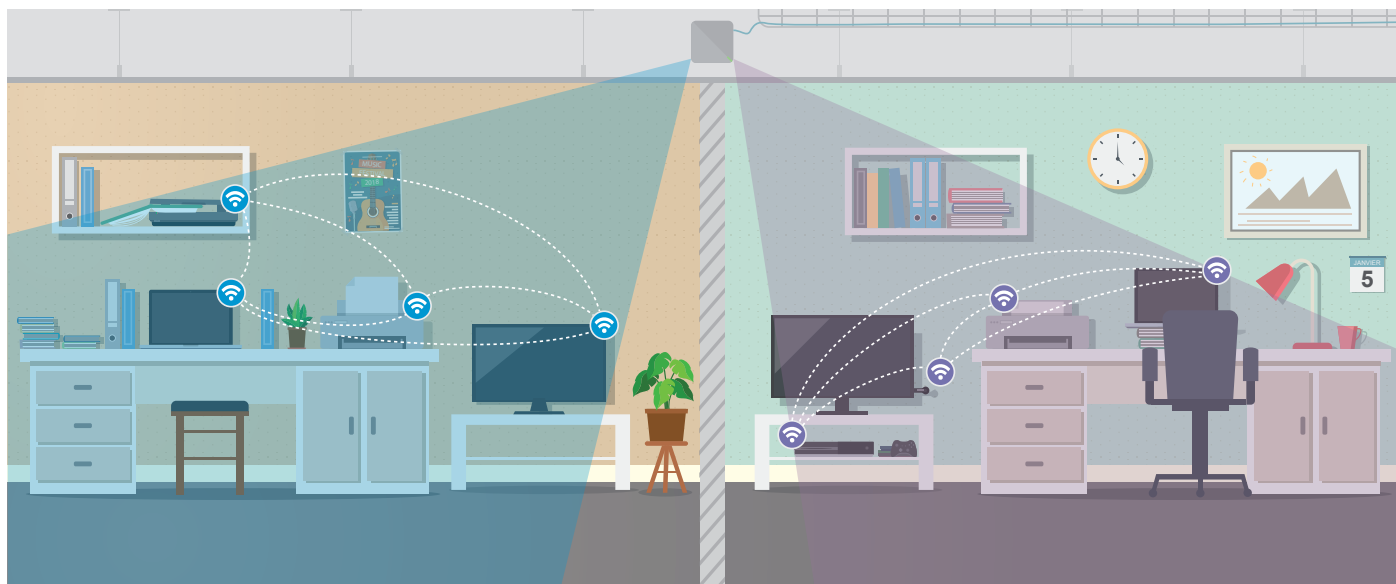
COMMSCOPE®
RUCKUS®

Wifirst's partner incubator
of the RAN technology

3

What should you expect from a professional WiFi service provider?

3.1

Support to define needs

OPERATIONAL EXCELLENCE

Each care home has its challenges, with different needs, concerns and budgets.
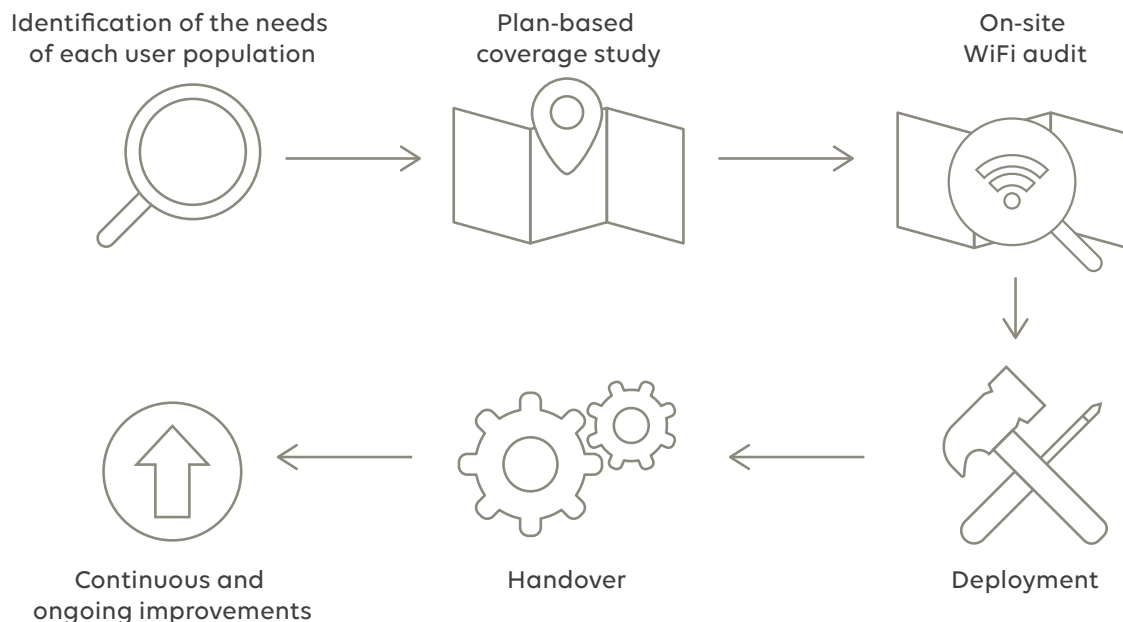
The first step in setting up an internet infrastructure that meets the needs of the various care home stakeholders (residents, families, caregivers, administrative staff, information system managers, etc.) is to fully understand the challenges specific to each home.

The internet provider must guide the manager step by step through the identification of the network issues within their establishment, and the selection of the tools best adapted to modernising their care home.

Support from A to Z

At Wifirst, each WiFi project integrates the support of a professional, from outline the care home needs, to design and implementation of the WiFi infrastructure.

The various stages of each project are as follows:

Identification of the needs of each user population → Plan-based coverage study → On-site WiFi audit

Continuous and ongoing improvements ← Handover ← Deployment

3.2

Proactive, reactive and scalable maintenance

OPERATIONAL EXPERIENCE

Having unreliable WiFi access can be worse than having no WiFi at all! Online business tools and the desire for residents to remain connected with loved ones, reinforce the critical importance of the internet connection. The slightest breakdown can be disastrous for both the case home as a business, and the well-being of residents. It is therefore vital to have guarantees around network maintenance and service level agreements in place to ensure you have a strong support team you can always depend on.

Proactive 24/7 monitoring

All the equipment deployed by Wifirst is remotely supervised and allows a multitude of technical and functional indicators to be fed back to our control centre to anticipate and correct incidents in real time.

Reactive maintenance

- Guaranteed Response/Recovery Time within 4 or 8 working hours
- Service availability rate > 99%

24/7 customer service

- Our call centre agents are available 24/7 for you and your residents
- Dedicated accessible technical support team
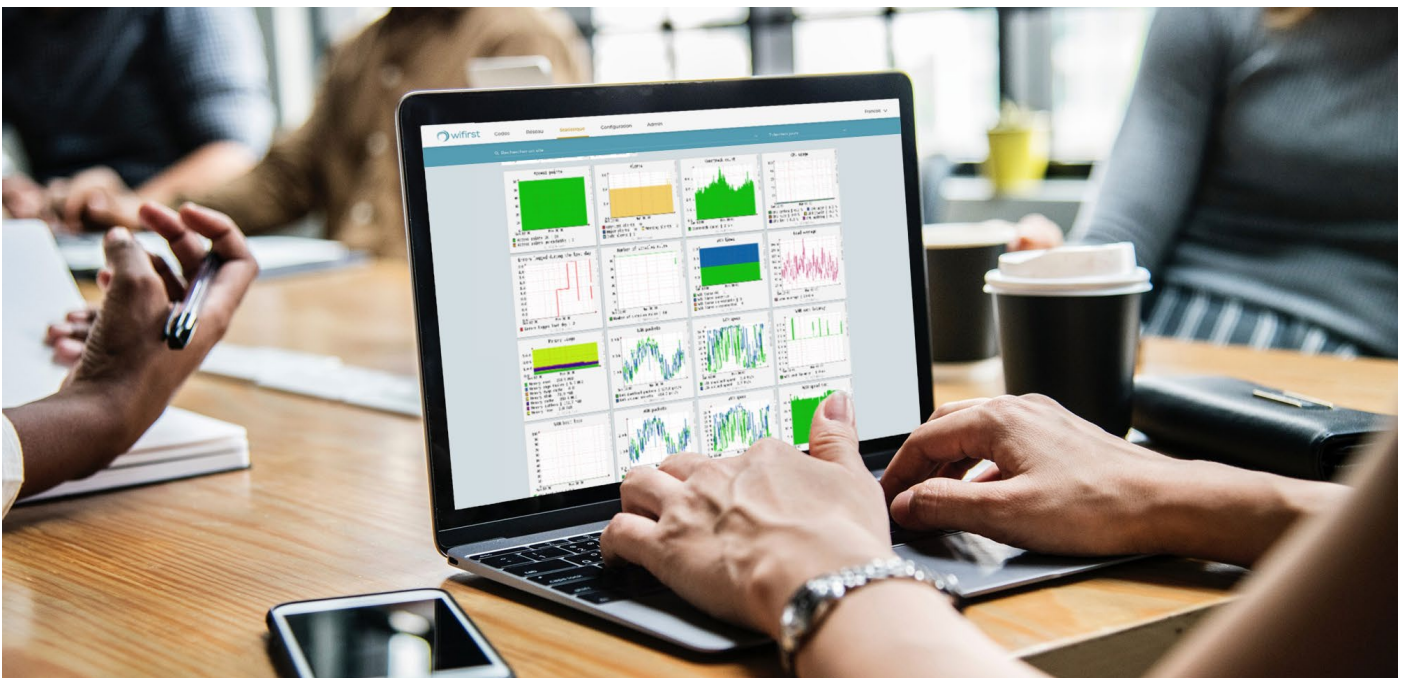
3.3 An easy to use comprehensive, realtime web interface

OPERATIONAL EXPERIENCE

We recommend that you choose a partner who will provide you with access to a tool allowing you to review the use of the service, view any connected devices in real time, track support incidents and obtain marketing information on users.

New generation Wifirst Center

- Network monitoring in real time
- Dynamic equipment mapping
- Event tracking (e.g. incidents, interventions, scheduled work, etc.)
- Monthly statistics (e.g. traffic, number of connected devices, etc.)

- User information (e.g. type of device used, etc.)
- Autonomy over administration of Wifirst Center accounts
- Support service
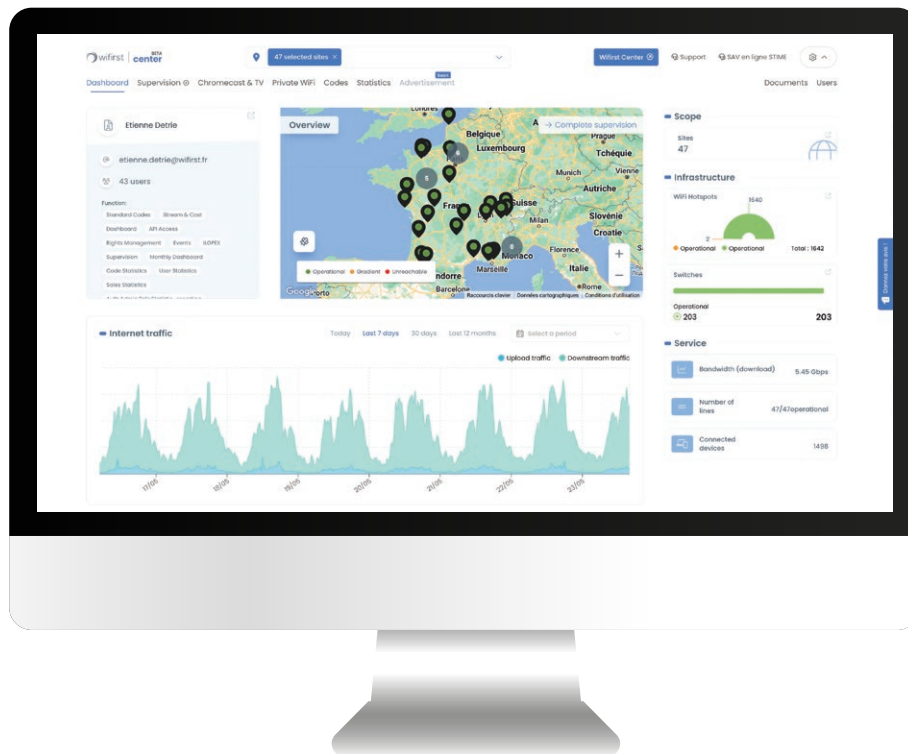
3.4 A global service offer integrating television and telephony

OPERATIONAL EXPERIENCE

While the internet is taking an increasingly large part in the life of seniors, the traditional media such as television and telephony remain their tools of choice for information, entertainment and communication purposes. In 2019, 61% of the over 70s considered television to be the best medium for following the news, compared to 48% for the population as a whole (source: Credoc - digital barometer 2019).

Resident comfort inevitably involves having an adapted audiovisual and telephone offer, which ideally connects through the internet network, and should be robust enough to absorb a manner of additional types of connected care home services and equipment. By choosing the right connectivity solution, the manager ensures comfort for residents and reliability for business use while avoiding the complexities of dealing with multiple providers.

A turnkey solution for WiFi, television and telephony

Wifirst takes advantage of its robust and scalable network infrastructure to offer care homes a turnkey solution integrating the installation and management of televisions and telephones in the rooms.

The objective being to respond to requests from care home managers who seek to rationalise the cost and management of digital services.

The Market Leader in Managed WiFi as a Service

About Wifirst

Founded in 2002, Wifirst is the European leader in Managed WiFi as a Service. In 2016 the Internet Service Provider expanded its network internationally, opening offices in the United Kingdom and Spain, and today covers 23 countries throughout EMEA. Our Core business structure is around a select number of customer groups: Hospitality, Student Accommodation, Senior Living, Healthcare, Retail and B2B. Wifirst is committed to continuous innovation, thus ensuring the service we provide is ready for the ever-rising demands of internet traffic. We offer high value-added services to assure that our WiFi networks set the benchmark for meeting the technical requirements of our customers.

Wifirst is an Ofcom registered UK Communications Provider supporting businesses with a variety of technical challenges and projects: WiFi, Fibre Leased Lines, TV, Chromecast, IoT and many other solutions. With Wifirst by your side, you will never need to worry about the management of your network.

For further information, please visit **wifirst.com/en/senior-housing**