Omnisperience

Unlocking the emerging opportunities from smart lifespaces

Chief Analyst, **Teresa Cottam**

Households are changing.

There is huge revenue growth potential for those communications service providers (CSPs) who can better meet the evolving needs of households as they **transform into lifespaces**.

But realising the full revenue potential of the opportunity, and staying aligned to customer needs, requires CSPs to rethink the way they provide services and offers.

This paper analyses the opportunity, the changing composition of households, and what CSPs need to do now to target the lifespace market more effectively.

WHY HOUSEHOLDS ARE **SO** IMPORTANT TO CSPs

Communications service providers (CSPs) have traditionally segmented their addressable market into consumer and business segments[1], where the business sector covers business-to-business (B2B), business-to-government (B2G) and wholesale segments, and the consumer sector covers households (fixed line) and individuals (mobile). Consumer services are considered to be those that support an individual's leisure or private communication and connectivity needs, and are centred on the home environment. But, while offering growth potential, this market is changing significantly.

The consumer sector is a large proportion of the total telecoms market

Since 2005, the overall value of telecoms services – communications and data services using any network type – has remained level in some markets (for example, Japan); has increased in others (South Korea and the USA); and has declined in others (Western Europe). But in all markets the consumer sector remains a significant proportion of total revenues. For example, in 2019 the consumer sector comprised 65% of total telecoms revenues (EUR255 billion) in Western Europe[2].

Households are a specific measure of digitalisation

Measuring household penetration of digital technologies is a specific measure of digital development used by regulators and governments. By 2018, Eurostat noted that the share of EU-28 households with Internet access had risen to 89% (up 29 percentage points since 2008); while the ITU provides a number of measures of digital development, including household Internet penetration (see *Figure 1*). The OECD provides detailed patterns of household Internet penetration, revealing that in 2019 it had reached 99.7% in Korea, 98.4% in the Netherlands and Norway, 79.9% in the US, and just 56.4% in Mexico.

Notes: 1. See: 'A New Approach to Market Segmentation' (PDF): https://omnisperience.com/2020/08/07/are-you-ready-for-idiosyncratic-experience-and-the-new-mode-of-marketing/
2. See: ETNO 'The state of digital communications 2020' (PDF): https://etno.eu/library/reports/90-state-of-digi-2020.html
3. See: 'Understanding the Nanobusiness Opportunity' (PDF): https://omnisperience.com/2020/05/11/understanding-the-nanobusiness-opportunity/

Households are a huge hidden growth opportunity

CSPs have long held ambitions to cross-sell and upsell a wider range of services to households and individual mobile users. For example, providing:

- a household with more services (mobile, broadband, fixed line and entertainment services)
- services to more members of the household (eg so that all are using the same mobile provider)
- new services that support emerging or evolving household needs (such as support for IoT)
- services for household business needs to support working from home, micro and nanobusiness requirements[3].

It has always been the case that a proportion of so-called consumer users of mobile and broadband services are in fact business users either in part or in whole. They have opted to use consumer services because they perceive there to be no added value from adopting specified business services – becoming hidden or disguised business users within the consumer base. This is problematic for CSPs, as it makes it far harder to meet their needs. This sector has expanded as more people work from home or run very small businesses or side gigs, a trend that has accelerated due to the effects of the COVID-19 pandemic.

Understanding the composition of the household, as well as how its members live, work and play, is essential to realising the full potential of this sector.

Figure 1 Household Internet Penetration Rates

Region	Households with interent access (%)
Africa	17.8
Americas	71.8
Arab States	57.1
Asia-Pacific	50.9
CIS	74.2
Europe	86.5
World average	**57.0**

Source: ITU, 'Measuring digital development: Facts and Figures' (2019)

HOUSEHOLD COMPOSITION
WHY IS IT CHANGING?

All societies contain some concept of 'household', although this concept varies considerably between cultures. Historically, households were usually multi-generational and multi-member units; but in the last 70 years the standard model of the household in many developed countries settled on the so-called 'nuclear family' of 2 parents and 2 children. Over the last 70 years, the way people live has dramatically changed, however, meaning that an increasing number of households no longer conform to the nuclear family model.

Rise in single parent families and single person households

The number of people living alone due to choice, divorce, separation, bereavement and couples choosing not to cohabit has increased substantially. In the EU, for example, 14% of households with children are now headed by a lone parent, with the number of people living alone increasing by 18.7% between 2010 and 2019. In 2017, 22% of households in Portugal contained only one person, compared to 44% in Denmark and 51% in Sweden (Eurostat). Single person households are also common in countries such as Australia (24%), South Korea (37%) and Japan (35%)[4].

Adult-only households

Traditionally, adult-only households comprised elderly people living alone, or young people living with other young adults (shared housing). Such households were often perceived as impoverished. Today's adult-only households include those in same-sex relationships and those in non-cohabiting relationships. People are staying childless for longer and are more likely to be voluntarily childless. For example, in 2019 fewer than one in four households in Sweden, Germany and Finland had children living in them (Eurostat). Across the EU, adult-only households increased by 10.8% between 2010 and 2019.

In some countries, adult children are remaining at home or returning to family homes even after marriage or partnership. This is due to the cost of buying homes and living separately (economic drivers), as well as other factors such as a desire to live communally for environmental reasons.

The 'sandwich' household and elder care

Another key change in household composition is that elderly people are living longer but wish to remain outside specialist care facilities for as long as possible. This means they either choose to live with their families – creating a 'sandwich' household comprising parents, grandparents and children living together – or they require adaptation of their house to better support them as they age.

The number of people in a household is shrinking

In 2011, the OECD reported that 'almost no OECD country has a total fertility rate above the population replacement rate of two children per woman. As a result the average household size has also declined...'[5] At that time the OECD calcuated the average household size as 2.63, while acknowledging considerable variation between countries – eg India (4.80), Turkey (4.11), Korea (2.97), Italy (2.58), US (2.57), France (2.38), UK (2.12), Germany (2.09) and Sweden (1.99). Today the average household size in the EU is 2.3 (see *Figure 2*) and in the US it is 2.52. While average household size is now beneath the nuclear family size of 4 members in many countries, this average hides the reality of more extended family members living within some households offset by an increase in single adult households.

Figure 2 Examples of EU household size 2018

Country	Average number of people
Croatia	2.8
Poland	2.8
Ireland	2.6
EU average	**2.3**
Belgium	2.3
Italy	2.3
UK	2.3
Netherlands	2.2
France	2.2
Germany	2.0
Sweden	1.8

Source: Eurostat

Note: 4. Government statistics
5. OECD 'Doing Better For Families' 2011.

WHAT IS A LIFESPACE? AND WHAT OPPORTUNITIES DO THEY PRESENT?

As the household evolves it is turning into **a smart lifespace** where technology is deeply embedded into the everyday lives of its inhabitants (see *Figure 3*). Some of the lifespace's technology needs – such as the need to **communicate** with others – have always existed, but have continued to evolve. The main communication method for households used to be a single fixed line phone; today's lifespaces now have a broadband connection and multiple mobile phones; the COVID-19 pandemic has stimulated large-scale adoption of video calling and conferencing. This evolution impacts on the connectivity speed and quality of service (QoS) that lifespaces require.

Working from home is now possible thanks to connectivity solutions, the advent of the laptop and mobile phone, and the Cloud. The latter of which provides access to office systems, applications, data storage, and support for collaboration. Together these tools enable employees to work from anywhere. But increased working from home has put pressure on capacity in rural and suburban areas and has revealed 'best efforts' consumer broadband, with its emphasis on download speed, to be inadequate for evolving requirements. Lifespaces need both differentiated and guaranteed QoS and faster upload speeds, which requires CSPs to redimension their services.

Entertainment services consumed by the household have evolved from a single television screeen providing broadcast content to multiple screens streaming video-on-demand, online gaming and higher definition content. These services increase pressure on home broadband because they are QoS-sensitive, with multiple sessions potentially taking place within the lifespace simultaneously - driving the requirement for increased capacity. Lifespaces are no longer passive consumers of content but are now fully engaged in the Creative Economy, which means they need faster upload speeds.

A range of other technology-enabled activities are also an integral part of lifespace offerings including:

- **remote learning and training**, which has been given a boost by the COVID-19 pandemic. This might be done via videoconference, audio call and so on
- **health and welbeing** - including fitness, the management of chronic conditions, e-doctor consultations, and assistance and support provided to elderly and disabled people. These incorporate IoT devices, videoconferencing, and applications that must be always-on
- **commerce and financial services** – including buying goods and services and bill payments. Such activities require a high level of security.

Smart home functions incorporate AI-driven devices, the gateway to the network, smart objects and household automation. This category overlaps with others: Amazon, for example, has already incorporated e-commerce capabilities into its Alexa-enabled devices and supplies complementary entertainment or lifestyle services such as Prime Music and Prime Video.

The complexity of the smart lifespace means that it needs both **support and assurance**. In current lifespaces this support usually falls to an individual adult, tech-savvy teen or friend; but as functions become increasingly sophisticated an emerging opportunity is arising to provide support-as-a-service. E-commerce should be integrated into such an offering, so that when a faulty or failing smart object is detected and diagnosed, a replacement is automatically ordered. Automatic network performance diagnostics should ensure the CSP is complying with the service-level agreement and that any issues are fixed proactively.

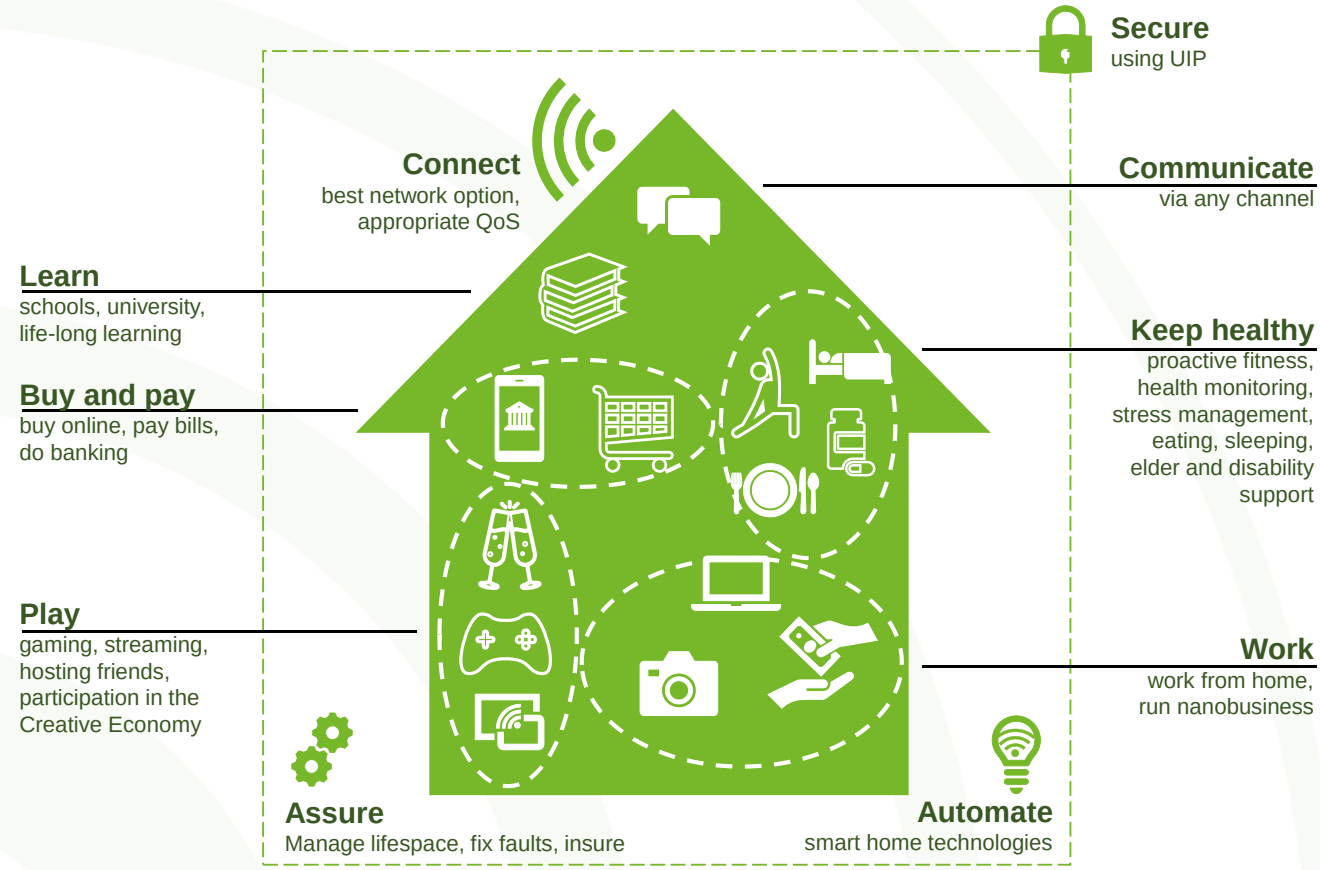
The deep connection of lifespaces increases their vulnerability to cyber attacks and thus **managed security** is another vital service. The security service needs to protect the lifespace itself, as well as its occupants wherever they are and whatever they're doing. This requires a user-centred approach to security[5].

Note: 5.
See 'Introducing a New Cybersecurity Category: User Isolation Protection' (PDF): https://omnisperience.files.wordpress.com/2020/06/omnisperience-green-paper-user-isolation-protection.pdf

Lifespaces

are places people live, work and play, supported by technology.

Figure 3 Smart lifespace activities



Source: Omnisperience 2020

5 THINGS YOU SHOULD DO NOW

1.

Review your consumer segmentation

If you have rigid B2B and B2C segmentations then you are missing opportunities within lifespaces where elements of both sets of services are required. Rather than have mutually exclusive service categories, consider how you can offer opt-in self-bundled services that allow customer to access all the things they need.

2.

Create new bundles and pricing

The notion of 'typical' nuclear family offerings is outdated and currently too focused on the play category, rather than on work and life categories. Lifespace offerings should cover a wider range of activities and be fully configurable to the inhabitants' needs. CSPs should enable lifespace inhabitants not only to tailor offerings through self-bundling but also provide the flexibility to adjust bundles. Pricing approaches should be fully convergent and extend beyond connectivity and devices into providing services. Costs should be clearly explained on bills and adjustable to current needs.

3.

Redimension network offerings to account for lifespace requirements

The decentralisation of work means that rural and suburban areas require more capacity, rather than capacity being concentrated in city centres, business parks and historic high-traffic areas. Not only do lifespaces need more bandwidth, lower latency and potentially higher levels of QoS, they also need higher upload performance as inhabitants actively engage rather than simply consume. Understanding and responding to new traffic patterns quickly is a critical requirement. Network offerings themselves need to be fully convergent, using the most appropriate network technology for the task and the circumstances. Lifespaces will require both differentiated QoS, as well as more granular control of how connectivity is being used within the space. All of this needs to be clearly reflected in bills.

4.

Meet new support and assurance needs

Some lifespace inhabitants are not tech-savvy; others just don't have the time to be. Automated smart support is a potential new revenue stream that derives from ensuring lifespaces are secure, functioning as expected, and that data is being regularly backed up. Assurance services should be proactive: able to detect failing smart objects and order new ones, or automatically analyse and fix causes of connectivity problems or slow downs. Insurance against failures, providing service-level guarantees, as well as the ability to offer more objects and functions within the lifespace on an as-a-service basis, are all promising new revenue streams.

5.

Securing the lifespace and its inhabitants

Security needs to move beyond devices or individual services to provide protection for the home, as well as personal protection for each inhabitant. Such protection should not only be proactive but should assume that users are security naive. This protection also needs to move with the user as they travel outside the smartspace – protecting their behaviour wherever they are and whatever they are doing.

About the author

Teresa Cottam is Omnisperience's subject matter expert for customer and employee experience, customer service, customer satisfaction and the future workplace. She is a renowned expert on SME and enterprise telecoms with considerable vertical market expertise which she uses to help B2B service providers understand the needs of their customers. Teresa previously held senior positions at Analysys Mason, Chorleywood Consulting (Informa) and Ovum. She is a judge of the GSMA Global Mobile Awards (GloMo's) for customer experience and enterprise innovation, and for the UK Cloud awards.

About Omnisperience

Omnisperience is a leading independent research and advisory firm focused on the telecommunications, media and technology (TMT) industry. Its purpose is to help B2B service providers become more profitable by understanding and meeting the evolving needs of their customers. It provides in-depth expertise and fresh insights that help customers reimagine their businesses and improve commercial success.

This is achieved through insightful primary research, distinctive analysis, factual and authoritative papers delivered through direct and consistent interaction with B2B telecoms service provider clients. Deliverables are pre-tailored to the needs of clients in formats that make them easy to consume and apply to the target audience. Omnisperience engages and inspires your teams, partners and customers, delivering Value Through Experience.

About this paper

Omnisperience Green Papers are preliminary reports intended to provoke thinking and further discussion. They are often the precursor to an in-depth white paper on this topic. Those wishing to provide feedback to this paper, or who wish to sponsor further research in this area, are welcome to contact us directly. You are free to circulate the paper to your peers and customers. You may also re-use content from it provided you attribute it to source (Source: Omnisperience 2020).

Omnisperience, 71-75 Shelton Street,
Covent Garden, London WC2H 9JQ

For more information:

Blog: omnisperience.com

Email: contact@omnisperience.com

Linked In: Omnisperience

Check out our website for more complimentary papers.