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A survey of the gigabit deployers : 2023

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COMMUNICATIONS CHAMBERS

Disclaimer

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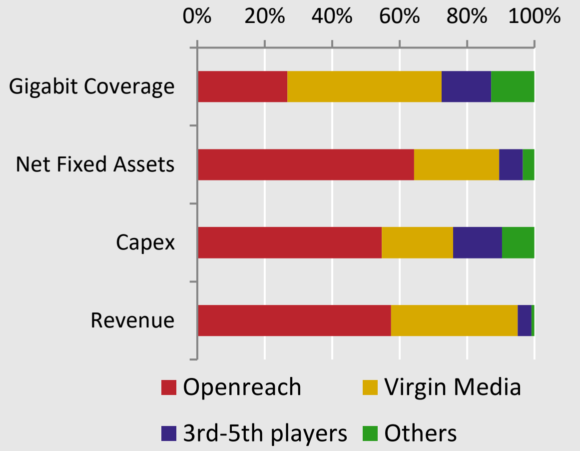
Contents

1 Executive Summary

This paper provides a survey of gigabit builders in the UK (Openreach, Virgin Media and alt-nets[1]).

In 2022, alt-net investment in FTTP continued apace. Their combined capex, at £2.3bn, is not far off that of Openreach (£2.8bn). In terms of coverage, they represent 28% of homes passed by gigabit networks (with Virgin Media leading with 46%). However, in revenue terms the alt-nets are still dwarfed by the incumbents. Hyperoptic (the largest alt-net by this metric) has revenue of £65m, compared to Openreach's £5.7bn. Roughly 60% of alt-nets are yet to report any revenue at all.

Figure 1 Distribution of scale metrics



Looking ahead, announced gigabit deployments now total 89.5m premises, or roughly 3x the number of UK premises. This is up from 2.5x at the time of our last report, primarily due to the newly announced plans of nexfibre (a sister organisation of Virgin Media). This degree of overbuild is almost certainly not economically viable on a national basis, and announced plans are likely to be pared back.

Greater than expected competition is not the only challenge for alt-nets. Several of the larger players have penetration rates below 10%, likely well below what was anticipated in the investment case (though of course rates will rise over time). Pricing has also been under pressure. The cost of the median 100 Mbps plan from retail alt-nets has fallen by 16% in the last 18 months, a fall in real terms of 25%, given wider inflation. Finally, the cost of debt has increased greatly, a difficulty given alt-nets' need to raise substantial capital.

These challenges are yet to have major impact on the corporate landscape, but this year has several small mergers and acquisitions (including one out of administration).

As alt-nets have sought to cut costs and shift focus to winning customers rather than passing homes, there have also been lay-offs. This year the larger alt-nets have let over 1100 employees go.

It seems likely that the pace of corporate restructuring will increase in the year ahead.

[1] Independent broadband deployers, as distinct from Openreach, Virgin Media and KCOM

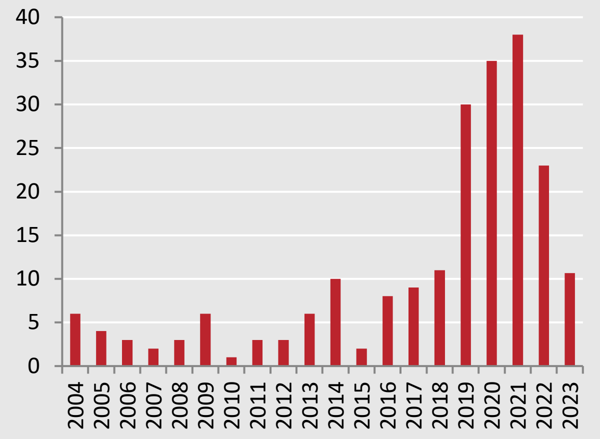
2 Introduction

In this paper we provide an update on the approximately 100 companies that are building gigabit networks in the UK. This is primarily based on annual reports filed at Companies House (gathered in August 2023) and other public domain information.

Since our last report[2] the market has changed appreciably. The financial environment has become more challenging, and operators have become increasingly focused on uptake, rather than just deployment.

After a surge of entrants 2019-21, the market is attracting far fewer new players. The 2023 rate of new applicants to Ofcom for 'Code Powers' (needed to deploy fibre networks) has fallen back to levels last seen in 2018 (Figure 2).

Figure 2 Companies granted Code Powers[3]



Conversely, there has been a trickle of exits, through merger or insolvency.

The pace of exits seems likely to rise. The market remains highly fragmented. More than 60 of the altnets are still too small or too new to have filed full accounts yet. At the other end of the scale Openreach, Virgin Media and CityFibre are all investing over £1bn per year.

In this paper we report the latest financial data for fibre builders in the UK, and then consider the challenges facing the alt-nets. Finally we look at corporate developments, both mergers and insolvencies.

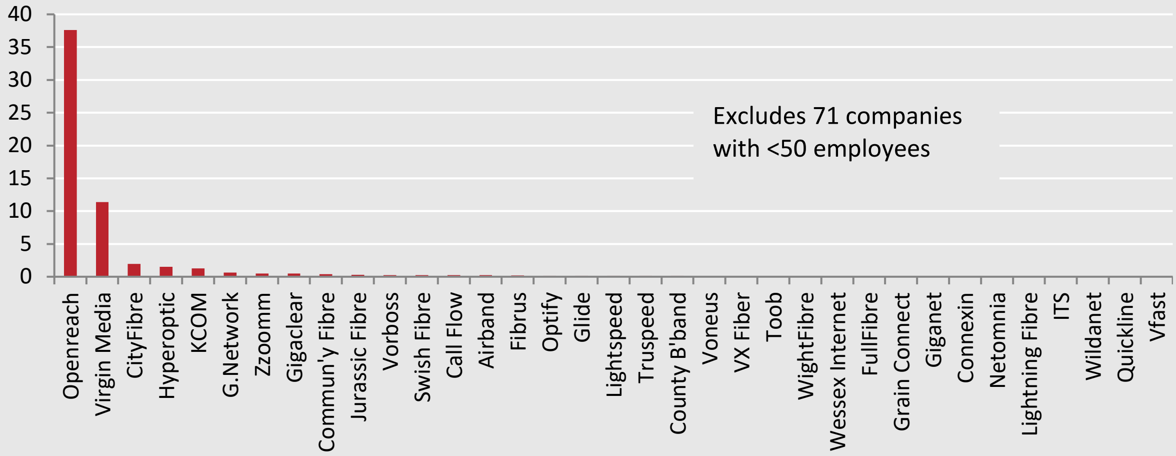
[2] Robert Kenny & Anthony Fox, *A survey of the gigabit deployers*, April 2022
[3] Analysis of Ofcom Code Power grants. 2023 figure annualised

3 Scale of gigabit builders

3.1 Employees

We begin by looking at staff numbers. Some alt-nets have hired rapidly. CityFibre[4], for instance, increased its headcount from 1,094 at end of 2020 to 1,975 at end 2022. However, they remain small by comparison to the incumbents. Openreach has more than three times the number of employees as all alt-nets combined. (That said, many alt-nets are making heavy use of contractors, and this workforce is not included in these figures.)

Figure 3 Company employees ('000)[5]



While there was brisk hiring in 2022, the figures above may represent a high-water mark, at least for the time being. As we discuss later in this report, 2023 has seen substantial redundancies in a number of alt-nets.[6]

[4] Throughout this report, when we cite figures for CityFibre we are referring to Connect Infrastructure Topco, the business' ultimate parent company

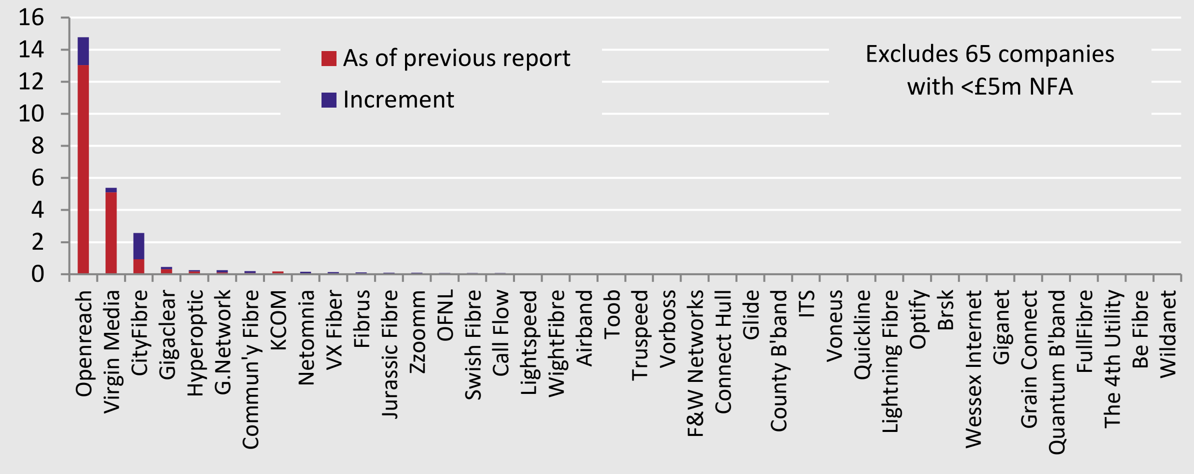
[5] Company accounts. Note that Virgin Media's figure includes staff to support retail operations, unlike Openreach's

[6] See page 16

3.2 Tangible Fixed Assets

In terms of 'assets in the ground' the picture is dominated by Openreach, Virgin Media and CityFibre. Since our last report, both Openreach and CityFibre have increased their tangible net fixed assets by over £1.5bn. Indeed, CityFibre's latest reported NFA are as large as those of all other alt-nets combined.

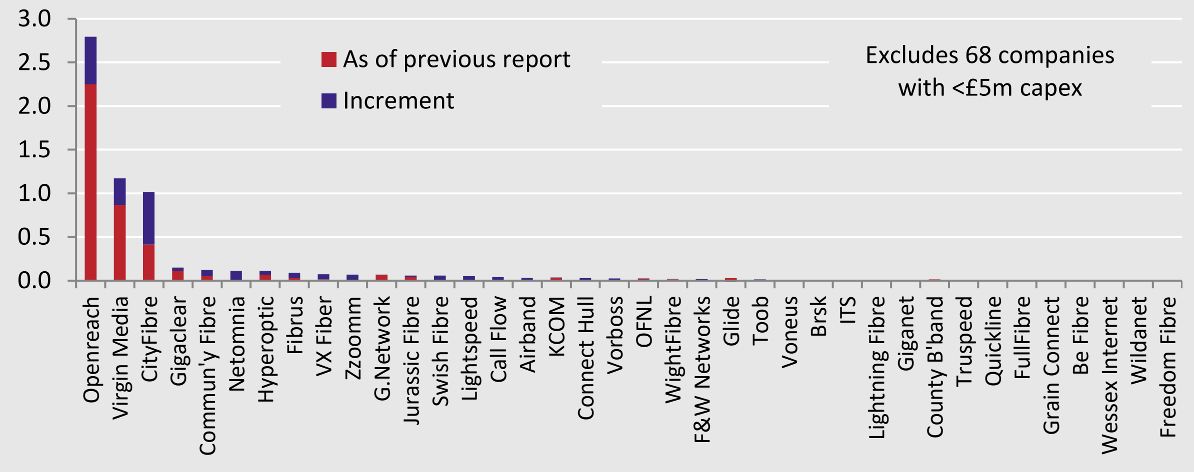
Figure 4 Tangible Net Fixed Assets (£bn)[7]



3.3 Capex

Capex has accelerated appreciably since our last report, from a total of £4.1bn to £6.3bn. Alt-net capex totals £2.3bn, compared to Openreach's £2.8bn. While OR remains extremely important, its share of capex has fallen, from 55% to 44% as alt-net deployment ramped up in 2022.

Figure 5 Capex (£bn)[8]

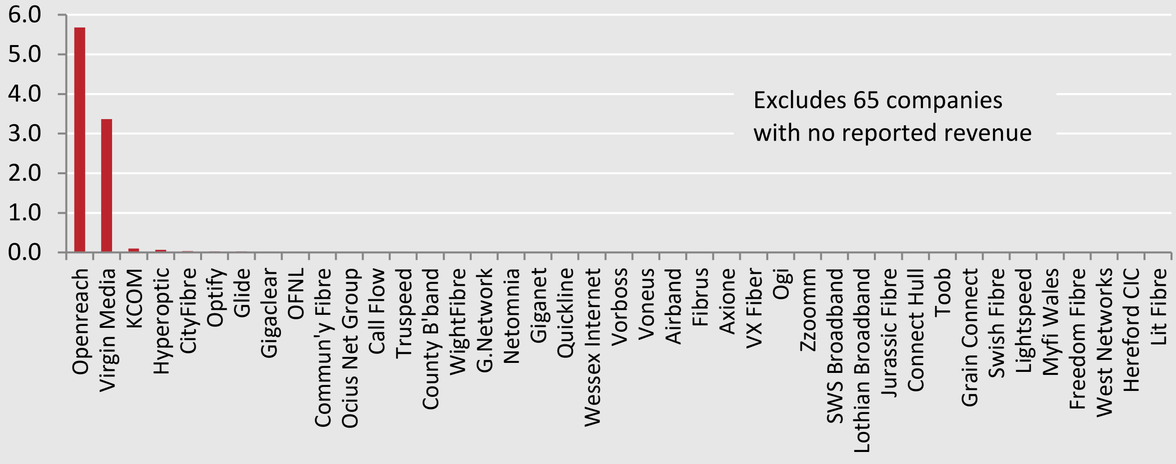


[7] Company accounts
[8] Company accounts

3.4 Revenue

While investment is growing, the latest figures for the alt-nets continue to show only modest revenues – indeed, a significant majority of alt-nets are yet to report any revenue at all (though there is of course a lag for account filing). Even the largest alt-nets are still dwarfed by the incumbents – Hyperoptic's £65m of revenue compares to Openreach's £5.7bn.

Figure 6 Revenue (£bn)[9]



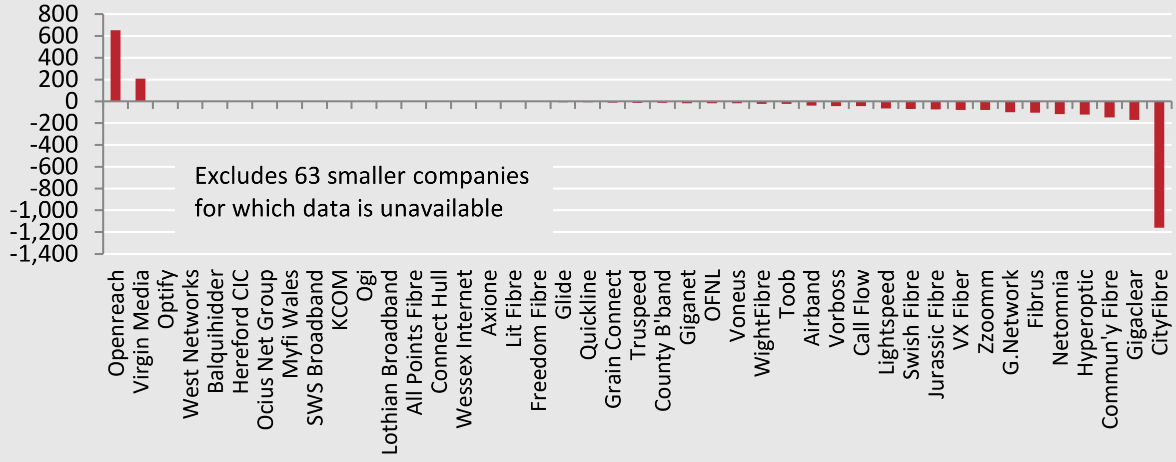
The comparison to Openreach is not apples-to-apples, in that OR has a much wider product set than the alt-nets, and a legacy of national coverage. However, as we noted in our prior report, while the alt-nets are already having significant impact on policy, investment incentives for the incumbents and so on, their overall direct impact on UK customers remains modest. (That is not to minimise their impact on the particular customers they do serve).

[9] Company accounts. Note that CityFibre's statutory revenue was affected by one-off adjustments. Underlying revenue was £80m, ahead of Hyperoptic

3.5 Operating cash flow

We now turn to simplified operating cashflow, calculated as EBITDA less capex.[10] Here the difference between the incumbents and the new entrants is even starker. While Openreach and Virgin Media are investing substantially, they are able to cover capex entirely from EBITDA. (Note that this sets aside certain costs, notably tax).

Figure 7 Simplified operating cashflow (£m)[11]



By contrast, the larger altnets need substantial external funding to support the deployment of their networks. CityFibre's *negative* operating cashflow in 2022 was £1.16bn, for example. Supportive deep-pocketed backers are essential in such circumstances. While at year end CityFibre had just £327m of cash on the balance sheet, in June 2022 it completed a £4.9bn debt raise (comprising a £3.9bn committed facility and a £1bn uncommitted accordion facility). These facilities will support ongoing investment.

Many alt-nets are in a similar position, albeit at smaller scale. However, to retain access to such debt facilities on favourable terms, it is important that borrowers meet debt covenants. These are pre-specified commitments by the borrower. If they are not met, the lender typically has the option to withdraw a facility or call an existing loan. We discuss this further below.

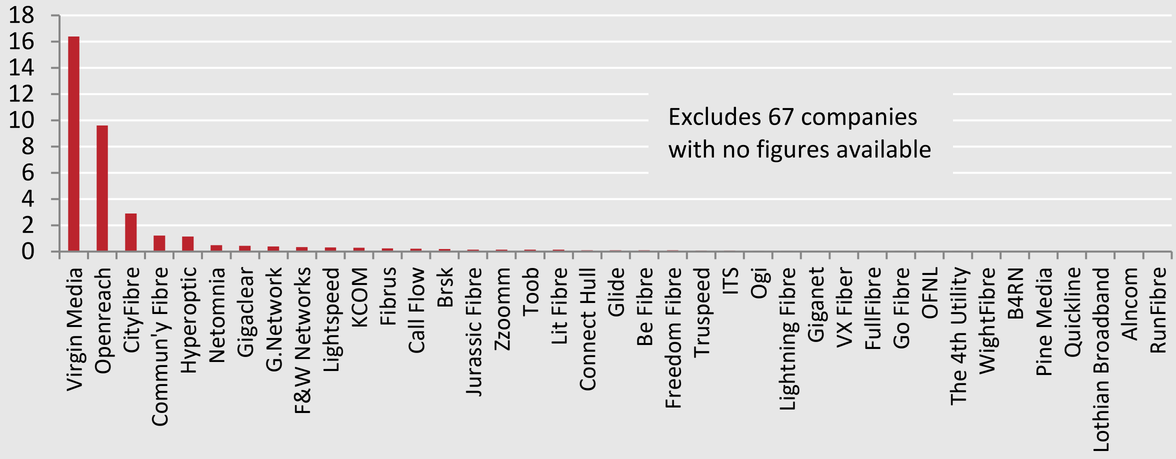
[10] Earnings before interest, tax, depreciation and amortisation less capital expenditure. We set aside movements in operating working capital, which are likely to be immaterial.

[11] Company accounts

3.6 Coverage

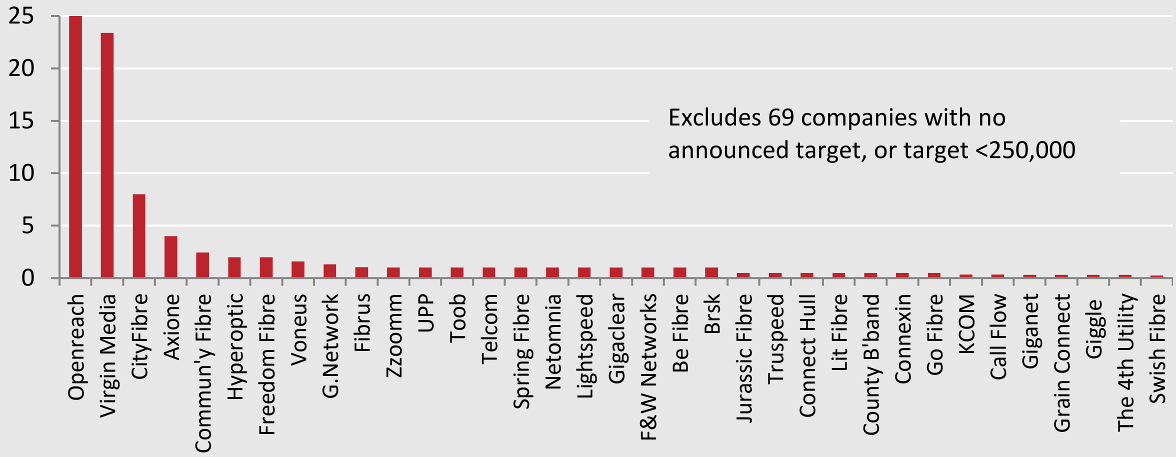
Finally we consider the coverage of the gigabit providers. Virgin Media leads, thanks to upgrades to its existing coax network that means it can offer gigabit speeds across its footprint. Openreach's FTTP coverage is roughly equivalent to all alt-nets combined:

Figure 8 Current giabit coverage (m of premises)[12]



In terms of coverage targets, these are mostly little changed since our last report. A notable exception is Virgin Media. In combination with its partner nexfibre, it now anticipates bringing gigabit to 23m premises.

Figure 9 Announced coverage targets (m of premises)[13]



The announced deployments now total 89.5m premises (up from 74.5m at the time of our last report), or 3x the approximately 30m premises in the UK. If all these plans came to pass, it would imply that

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[12] ISP Review, *Summary of UK FTTP Broadband Build Progress by ISPs Update 219*, 2 October 2023; various press reports
[13] Ibid

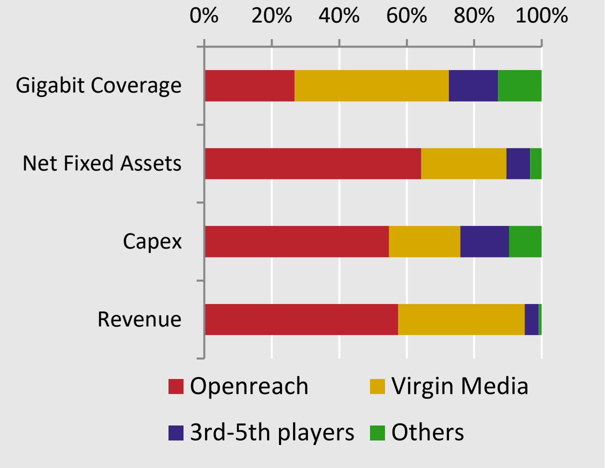
on average UK homes would have a choice of three different gigabit networks (albeit with variation around this mean). In practice, it seems likely that not all of these plans *will* be realised, and indeed a number of deployers may have revised their plans downward, even if they have not made a public announcement. Others have kept their targets, but pushed them out. Hyperoptic, for instance, originally intended to pass 2m homes by end 2021, then end 2023, and now in 2024.[14]

3.7 Summary

Figure 10 summarises the mix across a selection of these various metrics. Clearly Openreach and Virgin Media in combination are significantly larger than the other players. However, the alt-nets' importance is growing. Their share of capex has grown to 37%, up from 24% and the time of our last report, and their share of net fixed assets is up to 20% from 11%.

Looking within the alt-nets, there is less relative movement. In particular, CityFibre's share of these various metrics remains high and largely unchanged since the last report.

Figure 10 Distribution of scale metrics



[14] ISP Review, [City Focused UK Full Fibre ISP Hyperoptic to Cut Jobs as Build Slows](), 16 June 2023

4 Challenges facing alt-nets

While alt-nets have seen significant growth since our last report, they are now facing a more challenging environment on several dimensions.

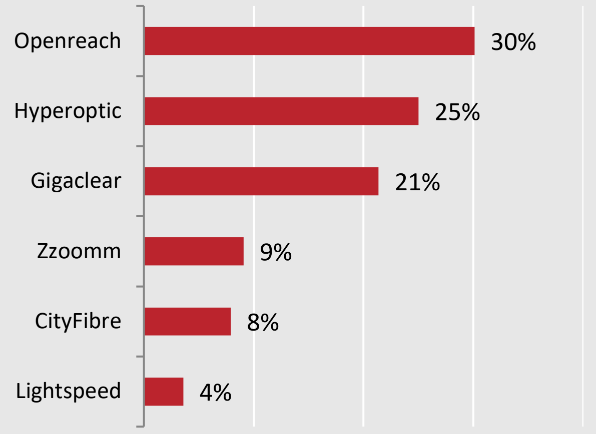
4.1 Penetration

Previously the focus of the industry was very much on network deployment and homes passed. However, while deployment continues apace, there is a growing emphasis on winning customers.

The passage of time means that we have moved beyond the pure 'build' phase of many of the industry's investment cases that were used to raise funds. Those cases predicted growing revenues for this phase, and investors are keen to see those delivered, as proof of the long-term viability of the business model.

However, penetration rates for at least some alt-nets are perhaps lower than some investment cases predicted (Figure 11). Point Topic estimate that average alt-net penetration at end-2023 will be 16%.[16] Of course, these figures will rise over time as networks mature.

Figure 11 FTTP Penetration rates[15]



However, Openreach is already having good success filling its network with penetration at 30% and rising. This, coupled with Openreach's rapidly expanding FTTP footprint (already at 10m homes), means that many of the most likely customers for FTTP will already have been captured.

Penetration is important in its own right as a driver of revenue. But it is also important for the ongoing availability of finance. As we have noted, borrowers need to meet covenants, and many operators either have a covenant related to the penetration rate, or something that is effectively equivalent (such as 'debt per connection').

Expected long-run penetration rates are also critical drivers of the value of alt-nets. Required rates for an NPV-positive business plan will depend heavily on an alt-net's particular situation. For example, in rural areas where the cost-per-home-passed is higher, penetration

[15] Annual reports. Figures are for various dates, December 2022 to July 2023. Openreach and Hyperoptic based on premises passed, others based on premises RFS. As of March 2022, G.Networks' penetration was less than 3%, but more recent figures are not available

[16] Point Topic (for INCA), *Metrics for the UK independent network sector*, May 2023

needs to be higher to offset this cost – though lower expected competition makes higher penetration plausible. Reasonable benchmarks might be 60% penetration in rural areas and 30% in urban areas.[17] Clearly most alt-nets have some distance to travel to reach these benchmarks.

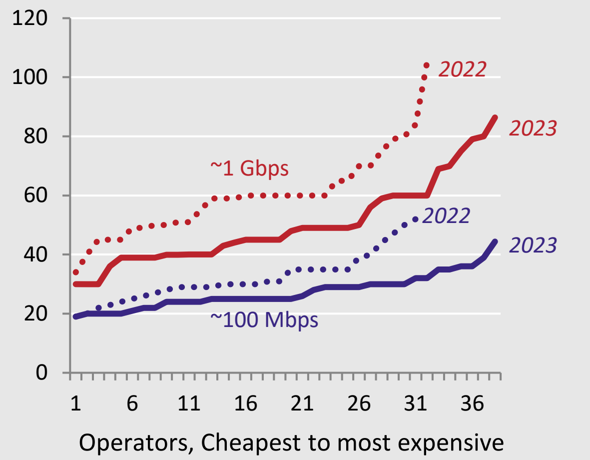
4.2 Pricing

Penetration is critical to driving revenue. The other essential factor is pricing.

Most of the operators we have analysed do not publish their pricing, since they have a wholesale business model. That said, approximately one-third do offer retail packages.

Figure 12 shows pricing for connections of approximately 100 Mbps and 1 Gbps broadband ('approximately' since a number of operators offer 900 Mbps rather than 1 Gbps, for example). The chart shows most recent available prices, and those on offer as of April 2022

Figure 12 Retail pricing, £/month[18]



The current median prices are £25 and £45 for ~100Mbps and ~1Gbps respectively.[19] These represent substantial falls compared to 2022, when the figures were £30 and £60. These drops occurred against a background of significant inflation – the 16% drop in the price of 100 Mbps compares to a 9% increase in prices more generally.

This aggressive pricing is consistent with the idea that alt-nets are anxious both to drive penetration and to capture customers before overbuild by rival FTTP networks. Wholesale price reductions by Openreach (notably Equinox 2) will also flow through to downward pressure on retail prices.

4.3 Increased competitive intensity

FTTP providers are facing increased competition. As we have noted, announced deployments now total three networks per premise. By implication, the number of networks in urban areas will be even

[17] See, for instance, Adam Sutton, *Valuing UK Fibre Altnets - Considerations for Investors*, 6 June 2023

[18] Operator websites. Note each line is based on the ranking for that particular product – the prices shown for Operator 1 will be the lowest price for each 100 Mbps and 1 Gbps, but these prices might be from two different operators

[19] Note that these prices include VAT – the £25 retail price generates £20.83 for the provider, after VAT

higher (since the number in rural areas will be below this average). It seems likely that few investment cases anticipated the market being quite so fragmented.

Both Openreach and Virgin/nexfibre have been more ambitious that was generally expected. Overbuild by Openreach is now a reality for many alt-nets. While some hoped for Ofcom intervention to limit such overbuild, this has not been forthcoming.

Of course, not all the announced deployments will come to pass, and three networks per premise seems unlikely. But this simply underlines the fact that many operators are going to need to pare back their plans.

Competing FTTP networks also makes it important for alt-nets to develop propositions that aren't simply based on technical superiority vs slower speed broadband – increasingly, that is no longer the competition. If competition between FTTP is based entirely on price, then value destruction seems inevitable.

Looking beyond fixed providers, both LEO satellite services and fixed wireless services increasingly have the potential to capture certain customers. Three now uses 5G to offer 150 Mbps with unlimited data for £24 – directly competitive with the 100 Mbps FTTP pricing shown above.

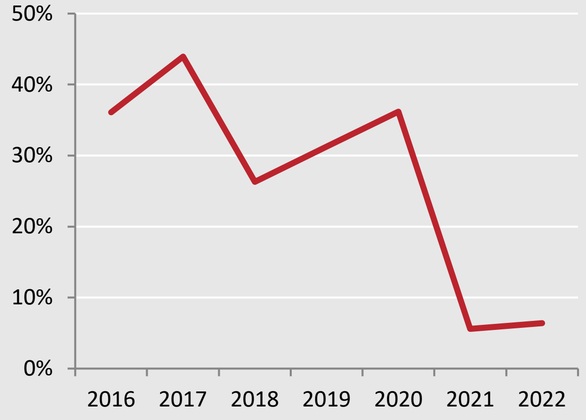
Neither of these technologies are likely to have mass market impact in the short to medium term. However, given the high fixed costs of FTTP networks, even modest loss of customers can have material impact on returns.

4.4 Traffic growth

Much of the marketing for FTTP service positions it as a solution to buffering or 'drinking through a straw'.[20] It is offered as a remedy for when your usage has outstripped the capacity of your existing connection.

[20] See, for instance, *Zzoomm*, *Gigaclear* and *CityFibre* advertising

Figure 13 Growth in traffic per fixed line, UK[21]



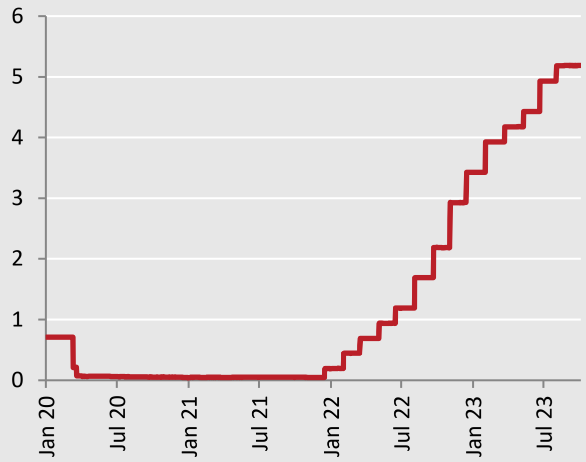
The number of customers feeling their existing connection is inadequate will be related to traffic growth – the faster usage is growing, the more likely it is that a lower speed connection will be overwhelmed.

However, traffic growth has slowed appreciably, and has been in the region of 6% for the last two years (Figure 13). This is consistent with a global pattern, where - pandemic aside - traffic growth has been falling for a number of years.

(This slowdown is not widely recognised, with one alt-net claiming in a September 2023 statutory filing that "UK households' data consumption is increasing at the rate of 35% year-on-year").[22]

4.5 Cost of debt

Figure 14 SONIA UK interest rate (%)[23]



Alt-nets' investment requires significant external funding, much of which is in the form of debt. For example, Hyperoptic borrowed £219m of long term debt in 2022.[24]

Thus the cost of debt is a key driver of the long term financial health of alt-nets. However, the benchmark SONIA rate has risen substantially since the beginning of 2022 (Figure 14). Companies requiring new debt (either to support continued investment, or to refinance existing debt) are likely to face much higher borrowing costs. This is likely to put further pressure on the case for incremental investment and – in some cases – may represent a solvency risk.

[21] Analysis of data from Ofcom *Connected Nations* reports
[22] Lightspeed Fibre Holdings, *Annual Report*, 19 September 2023
[23] SONIA (Sterling Overnight Index Average) is a benchmark risk-free interest rate published by the Bank of England. It is a replacement for LIBOR
[24] Hyperoptic, *Report and Financial Statements 2022*, 27 September 2023

5 Corporate developments

5.1 Changes of ownership

Given the very large number of players in the market, consolidation has been long anticipated, though perhaps is likely to be more challenging than conventional wisdom expects.[25] This year there have been several transactions that have combined FTTP networks, though two of these have been special cases:

Figure 15: Alt-net mergers, 2023

Date	Target(s)	Acquirer	Comment
Feb-23	Jurassic Fibre, Swish Fibre, Giganet and AllPoints Fibre	Fern Trading	Fern had holdings in several separate alt-nets, but merged them into a single entity
Mar-23	Beacons Telecom	Voneus	Beacons had an estimated 15k homes passed
Sep-23	Upp	Nexfibre / Virgin Media	Sale forced by government requirement that Russian owner LetterOne divest
Sep-23	Broadway Partners	Voneus	Broadway had 11k homes passed. Entered administration in May 2023
Sep-23	SWS Broadband & Cadence Networks	Voneus	Targets both part of Rural Broadband Solutions

Fern Trading already had investments in several alt-nets, but combined their operations. It has indicated it may be active in future industry consolidation.

Upp was a forced sale, after the government deemed its Russian ownership via LetterOne a national security risk. Nexfibre acquired Upp to accelerate its fibre deployment, gaining 175,000 premises passed with minimal overlap with its existing network.

The remaining transactions have been a series of small purchases and mergers by Voneus, with Broadway acquired out of bankruptcy modest acquisitions of Beacons Telecom, SWS and Cadence.

In addition to these 'consolidation' transactions, there have been a number of ISP acquisitions by networks (such as Connexin's purchase

[25] For a detailed discussion, see Communications Chambers, *Roll-up or roll on? Prospects for consolidation amongst UK fibre-deployers*, September 2022

of Pure in Hull). These acquisitions can make sense, bringing a customer base to an existing network.

There also have been changes of financial shareholder, such as Kompass' acquisition of 100% of Lightspeed, and Agnar's acquisition of Trooli. The latter of these appears to have been a distress transaction.[26]

However, these two types of transaction do not represent consolidation of the fragmented FTTP network market.

5.2 Insolvency

The main insolvency in the sector this year has been Broadway Partners, since acquired by Voneus.[27]

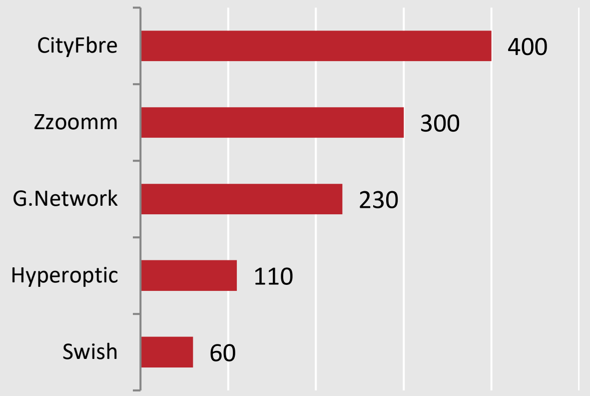
As alt-nets have slowed their deployments, some underlying fibre builders have also got into trouble. Both Light Source and Makehappen have entered administration this year.

5.3 Redundancies

While larger alt-nets remain more healthy, a number of them have been reacting to the changed environment by cutting spend and shifting emphasis to sales rather than deployment.

This has resulted in some relatively substantial redundancies (Figure 16). Zzoomm, for example, has let go approximately half its workforce.

Figure 16 Altnet redundancies 2023 (# of employees)[28]



In general, these redundancies have fallen particularly heavily on engineering and network staff. This is a sharp change from the situation prior to 2023, when constrained supply of employees with network skills was seen as a key constraint on fibre deployment.

Beyond the alt-nets, Virgin also has been reducing headcount, shedding 2,000 staff.[29]

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[26] Telco Titans, *UK altnet Trooli hires restructuring guru as sale talk resurfaces*, 6 February 2023
[27] Broadway Partners, *Notice of deemed approval of proposals*, 14 August 2023
[28] Media reports
[29] ISP Review, *Virgin Media O2 UK Cuts 2,000 Jobs as Broadband Customers Fall*, 25th July 2023

6 Conclusion

Since our last report there has been substantial FTTP deployment, and the pace of deployment has accelerated. Many more households and businesses have the option of full fibre broadband.

However, the industry – and alt-nets in particular, are facing an increasingly challenging environment, due to rising costs, increased competition, slow uptake, price pressures and rising debt.

Investors will be considering whether incremental investment can be expected to generate a positive return in this environment. However, the challenge for the great majority of alt-nets is that they are currently clearly sub-scale, and absent further investment are likely to remain so.

To date, consolidation has been modest, and there are numerous practical challenges in securing synergies from mergers of FTTP networks. Nonetheless, more mergers are likely, perhaps driven either by distress sales, or an increasingly sober view of prospects amongst shareholders.

From a policy perspective, the good news is that premises passed with gigabit networks already totals over 35m, more than the number of premises in the country. However, this is a mix of premises with one or two networks, and a significant number with none at all.

Planned FTTP coverage goes much further. Openreach expects to add a further 15m premises, for example, including many in more rural areas. Looking ahead, a key question is whether existing funds raised and future investor appetite are sufficient to maintain alt-net momentum and (by extension) maintain competitive pressure on Openreach. At the moment, the aggregate ambition to pass roughly 90m premises feels somewhat fragile.

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