Metrics for the UK altnet sector

Scale, coverage, ambitions, concerns

April 2018

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A Point Topic report for INCA

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1. In summary

Premises passed or addressed

• The UK's alternative broadband network operators are estimated to have passed or addressed nearly one million homes and businesses with fixed superfast or ultrafast networks at the end of 2017[1]

• Totalling over 998,500, the majority, but not all of this coverage, uses ultrafast fibre-to-the-premises or home (FTTP/H) and fibre-to-the-building (FTTB) technology

• While more difficult to assess, altnets operating fixed wireless access (FWA) networks could cover up to an estimated two million premises[2]

• In total the UK's alternative broadband providers are estimated to pass or address up to three million premises.

Live connections

• There are 207,500 live connections to superfast and ultrafast fixed networks provided by altnets

• Point Topic estimates there are over 100,500 live connections to altnets' FWA infrastructure

• In total altnets accounted for an estimated 308,000 live connections at the end of 2017.

Forecasts

• Fixed superfast or ultrafast infrastructure supplied by altnets is expected to reach over 1.92 million premises at the end of 2019 with an estimated 554,700 live connections

• In 2025 these figures are expected to have risen to nearly 14.25 million[3] homes and business passed, with around 4.8 million live connections.

Investment

• Private sector investment announcements totalling £2.5 billion have been made within the past year relating to altnets

• This does not represent the entire altnet market

• Large and mid-sized altnets are seeing increasing interest from the investment community

• Smaller altnets are also planning to invest in their broadband networks.

Concerns

• Overbuild by Openreach and others, access to suitable backhaul, and engaging with developers and local authorities on new build housing plans are the top three current concerns for altnets

• Planning and street works delay and costs are next

• This is followed by getting wayleaves and delivery times for services from Openreach and others.

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[1] Operators' reporting varies in terms of what constitutes 'passed' and 'addressed'; this total therefore includes some differences on the definition of premises passed and addressed.

[2] The fixed wireless access (FWA) market is more difficult to assess due to line of sight issues and fragmented supply in the sector.

[3] This total may include some double counting if and where networks overbuild one another.

2. Introduction

This report provides an overview of the UK's alternative network operator sector as of end-2017 and early 2018, including scale, coverage, ambitions and concerns. It includes both fixed and wireless network operators.

It has been produced in partnership between INCA – the Independent Networks Cooperative Association – and Point Topic, drawing on input from both INCA members and non-members.

Basis for research

In compiling these statistics, Point Topic has relied heavily on self-reporting by network operators. When numbers are unknown, we have used our own estimates including postcode data if available.

INCA members were surveyed during January to April 2018. Survey questions can be found at https://www.surveymonkey.co.uk/r/altnetsurveyJan2018 and in Appendix A.

The report also draws on Point Topic's continuing Superfast Broadband Update and Broadband Geography research programmes, which have been gathering information and datasets since June 2009. This includes Point Topic's Superfast Broadband Report and Superfast Broadband Directory, updated every six months. This research is used particularly in assessing expansion in recent years of the alternative network operator footprint.

Research aims

By gathering information on coverage in terms of premises passed and premises addressed, live connection numbers, expansion plans and key concerns on an aggregated basis, it is hoped the altnet sector will be better able to demonstrate to policy makers, Ofcom, investors and the media, the role it is playing and advances it is making in bringing superfast and increasingly ultrafast broadband to UK homes and businesses. The aim is to ensure altnets continue to be recognised and supported.

Definitions

- Altnet – we define an alternative network operator as an organisation deploying broadband infrastructure for wholesale and/or retail use, which is not part of either of the UK's incumbent operators BT Group or KCOM in Kingston upon Hull, and that is not Virgin Media as the national cable operator. This includes community groups, not-for-profit organisations, and privately funded companies.
- Technologies – in terms of fixed networks, we cover fibre-based network deployments including fibre-to-the-cabinet (FTTC), fibre-to-the-premises or home (FTTP/H) and fibre-to-the-building (FTTB) with the exception of student and military accommodation. We also cover superfast cable infrastructure (Docsis 3.0). Fixed wireless access (FWA) deployments are included where we have been able to gain information. This report does not cover satellite, 4G, white space or leased line infrastructure.
- Bandwidth – the report covers next-generation broadband infrastructure capable of offering bandwidths of 30Mbps download or above. However, coverage of FWA technology includes sub-superfast bandwidth. The industry now widely refers to 100Mbps download and above as ultrafast. Ultrafast is defined as 100Mbps by the European Commission and the UK

Government. Ofcom however, defines ultrafast as 300Mbps or more – this is also Point Topic's preferred definition.

- Premises passed and addressed – Point Topic defines premises passed as those that can readily order a broadband service. However we recognise there are varying definitions and different terms. Premises addressed tends to be classed as a home or business located within x number of metres of a network.
- Connections – live connections we define as premises which have an active subscription/s to a broadband service. We include both residential and business, wholesale and retail but without double counting of these figures.

Next steps

We aim to update this report on a regular basis in order to follow changes in the market, track advances in coverage and scale, as well as understand new issues and concerns within the altnet community as they arise.

The survey attached to it has been completed to date by 18 alternative networks operators forming a representative sample of the UK altnet sector. Our thanks goes to all those who have taken part in the survey so far, most of which but not all are INCA members.

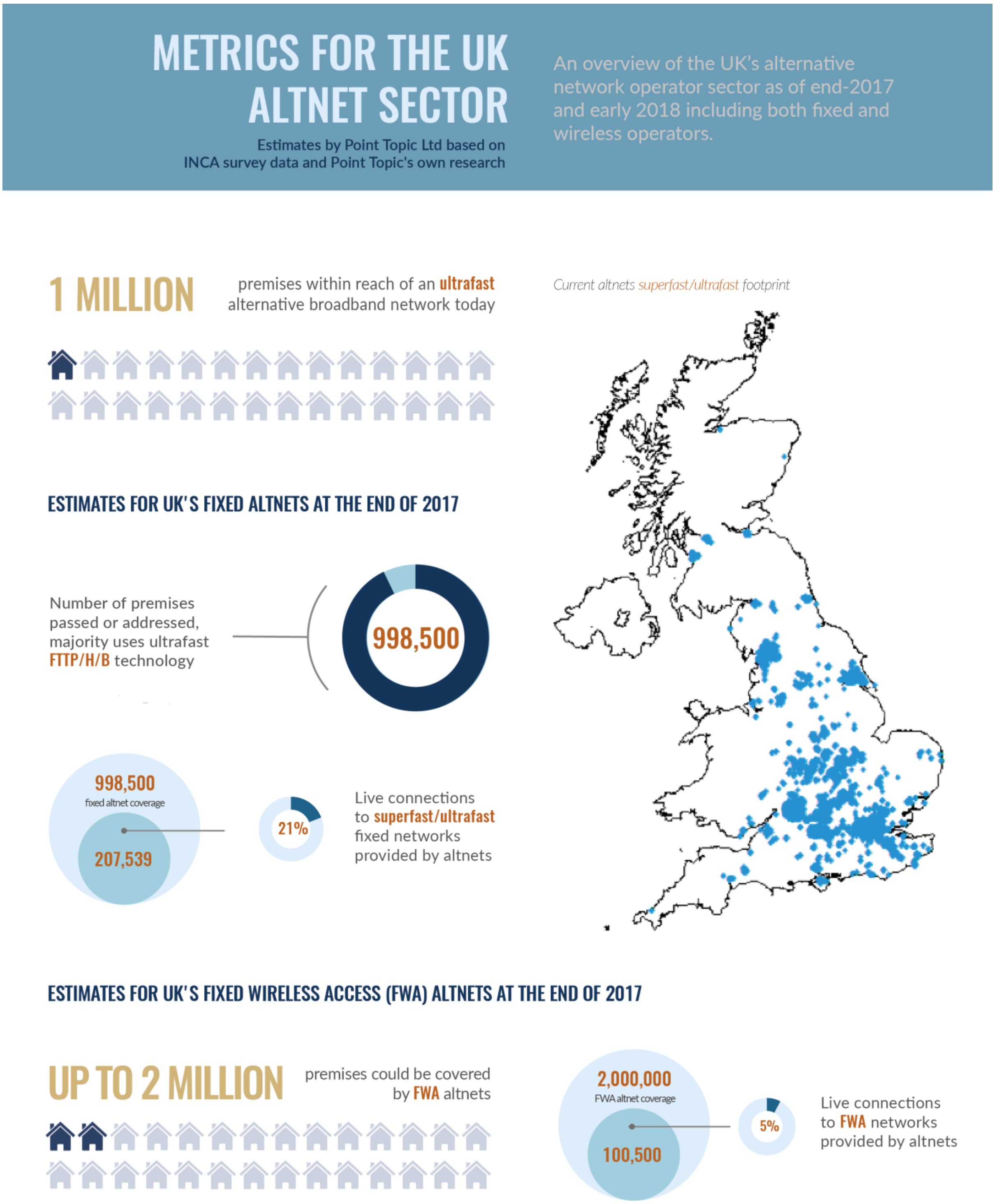
As mentioned above, we rely to a large extent on self-reported statistics to assess the scale of the altnet sector in terms of premises covered and live connections. In order to increase the rigorousness of data we will continue to work with INCA and the industry to agree on metrics and outputs, including definitions.

The FWA market in particular requires further research in order to better assess coverage and customer base.

An update will be made available by INCA in time for the organisation's annual meeting on 17 October 2018.

3. Key metrics

The following infographic provides a snapshot of the UK alternative network operator sector at the end of 2017.



4. Assessing scale and ambitions of the altnet sector

Point Topic provides estimates of premises passed or addressed by the UK's altnets and live connections for the end of December 2017. We have split these into fixed and fixed wireless access infrastructure.

We also forecast some (not all) of these numbers at the end of 2019, and in 2025.

Our estimates are based on survey data supplemented by Point Topic research as outlined above, either reported to us by network operators or using our own estimates when actual numbers are unavailable.

Table 1 below contains estimated key metrics for the UK's alternative fixed superfast and ultrafast, and FWA broadband sectors.

Premises covered by fixed superfast and ultrafast networks

At the end of December 2017, the UK's alternative network operators are estimated to have passed or addressed over 998,500 premises with their fixed broadband infrastructure.

The vast majority uses ultrafast fibre-to-the-premises or home (FTTP/H) and fibre-to-the-building (FTTB) technology.

Without counting addressable premises, the altnet sector passes over 648,600 premises with fixed superfast and ultrafast infrastructure.

Premises with superfast and ultrafast fixed connections

Live connections for alternative network operators stood at an estimated 207,500 at the end of December 2017.

Premises passed by FWA networks

Alternative FWA infrastructure is estimated to have covered up to two million premises at the end of December 2017. This Point Topic estimate is based on a take-up assumption of five per cent.

Premises connected by FWA networks

Live connections over alternative network operators' FWA infrastructure were an estimated 100,500 at the end of December 2017.

Total altnet coverage and connections

We estimate that the total altnet sector using fixed and FWA technologies in the UK could have accounted for over three million premises passed or addressed at the end-December 2017, and over 2.65 million premises passed. Altnets between them had an estimated 308,000 live connections.

Forecasts for end-2019

We asked altnets to provide an indication of how many premises passed and live connections they expected to have at end-December 2019. Several have also given public indications of their future coverage aims. These are summarised in Table 2 below.

Based on those who responded, combined with public announcements, we estimate there will be 1.92 million premises passed or addressed, and 554,700 connections at the end of 2019 for fixed superfast and ultrafast infrastructure.

However, this does not include all altnet players in the market, given several have not provided any indication of their plans formally or informally. It also does not take account of new players entering the sector.

Aspirations for 2025

We also asked altnets to give an idea of their aspirations for 2025 in terms of premises passed and live connections. We have used public announcements and Point Topic research to arrive at estimates. These put premises passed at around 14.25 million and connections at 4.8 million for 2025 for fixed ultrafast infrastructure. This may include some double counting of premises where footprints overlap.

Again this is not based on the whole alternative network operator market but it does include the largest players.

Unfortunately there is currently too little information available in the market for us to properly forecast the wireless altnet sector on this basis.

Table 1: Estimated key metrics for UK altnet sector

FIXED SUPERFAST & ULTRAFAST INFRASTRUCTURE		
End-December 2017	**Connections**	**Premises passed/addressed**
Total for fixed superfast and ultrafast altnets	207,539	998,531
FIXED WIRELESS ACCESS INFRASTRUCTURE		
End-December 2017	**Connections**	**Premises passed**
Industry response so far	17,007	616,240
Point Topic estimate for additional FWA	83,493	1,393,760
Up to total for FWA altnets	100,500	2,010,000
COMBINED ALTNET INFRASTRUCTURE		
End-December 2017	**Connections**	**Premises passed/addressed**
Up to total altnet sector fixed and FWA	308,039	3,008,531
FORECASTS		
FIXED SUPERFAST & ULTRAFAST INFRASTRUCTURE		
	Connections	**Premises passed/addressed**
End-December 2019	554,751	1,920,068
Aspirations for 2025	4,813,370	14,246,950

Source: INCA survey, Point Topic research and estimates

Table 2: Public expansion announcements by selected altnets

Altnet	Plans	Date announced
CityFibre	One million UK homes in 12 towns and cities within four years, with potential to extend this to up to five million UK homes by 2025	9 November 2017
Community Fibre	500,000 properties by the end of 2022	20 March 2018
Gigaclear	150,000 premises in UK rural areas by around 2020	5 May 2017
Hyperoptic	500,000 premises by 2019, two million in 2022; aspiration for five million by 2025	28 July 2017
TalkTalk Group and Infracapital	More than three million homes and businesses in mid-sized UK towns and cities	8 February 2018
TrueSpeed	To pass up to 75,000 homes and businesses in the South West region	11 July 2017
WarwickNet	Increase its offering from 180 to 750 business and science parks nationally over the next 12 to 18 months	12 October 2017
WightFibre	Over 50,000 homes and businesses across the Isle of Wight/53,000 of the 61,000 homes in the island by end 2022	8 November 2017/22 March 2018

Source: Altnets, will be using FTTP/H/B technology

5. Altnet sector coverage mapping

Point Topic maps broadband provision throughout the UK, including the footprints of the country's alternative network operators.

As part of the INCA survey we asked altnets to provide their coverage details. We have also used our own research to provide a view of altnet infrastructure provision today, both for superfast and ultrafast fixed networks and FWA networks. In addition we provide some forecasting of future coverage. Figure 1 below summarises coverage, while the following Figures 2 to 7 provide more detail.

Figure 1: Altnets coverage today and forecasted for 2025

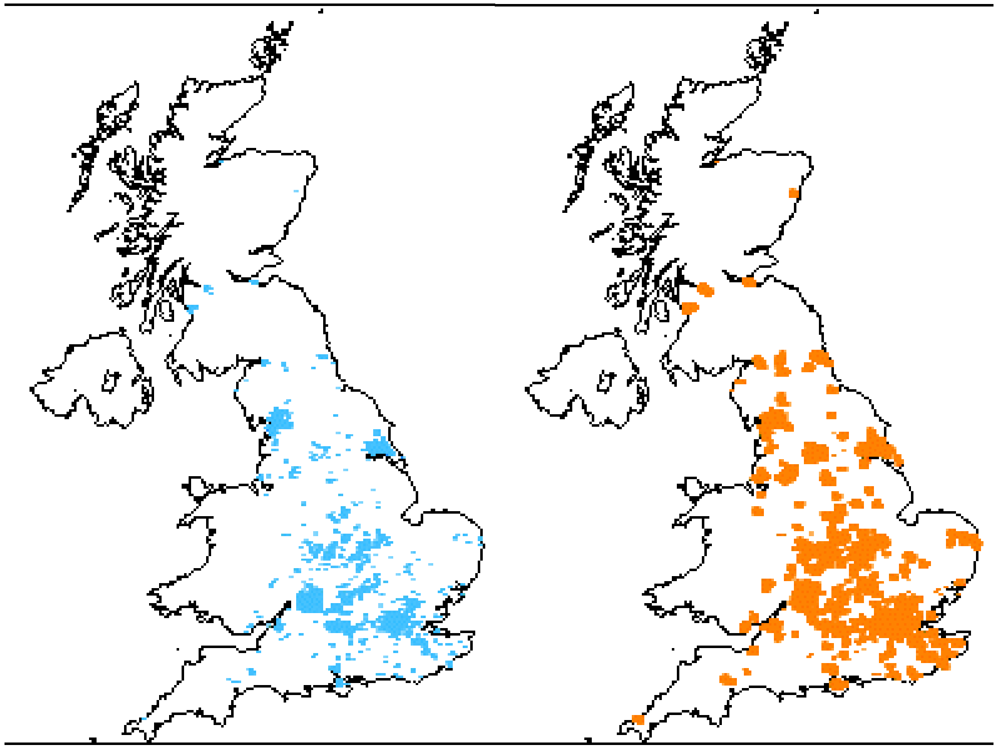
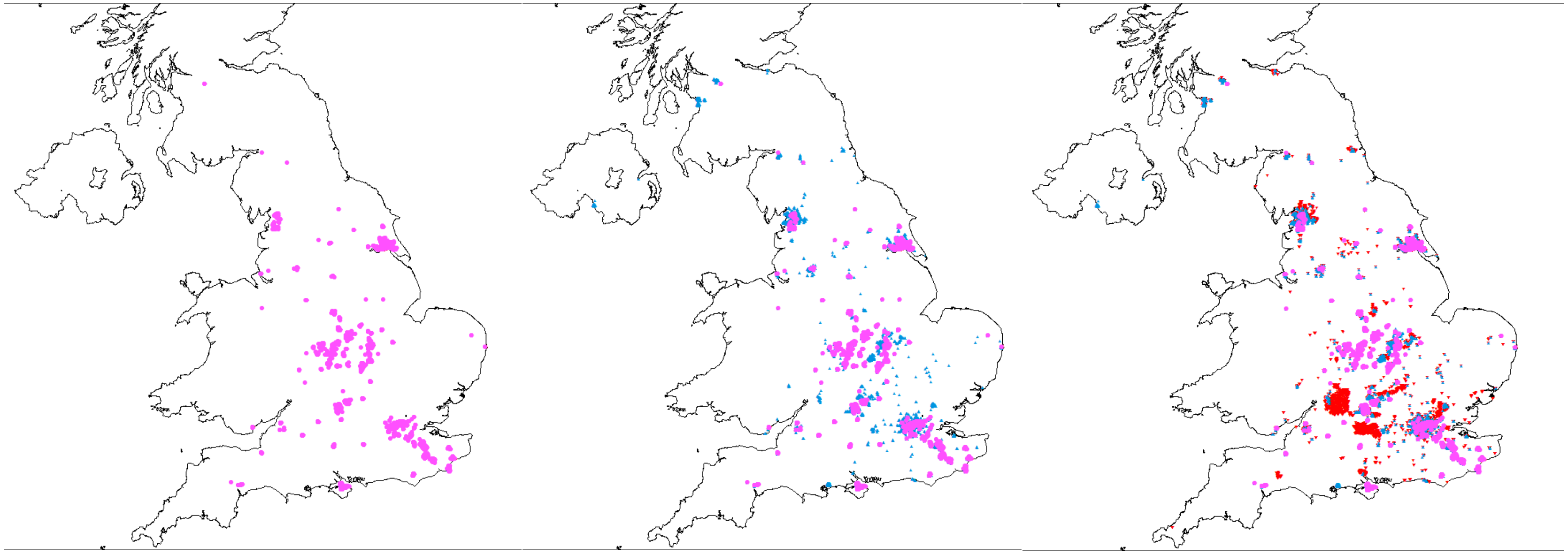


Figure 2: Altnet postcodes in the UK at the end of 2015, 2016 and 2017



2015 2016 2017

While the zoomed out country level view is useful it does obscure some of the progress. If we look more closely at London and surrounds we can see in more detail how altnet infrastructure is starting to develop, infill and spread.

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Figure 3: Altnets in London and surrounds end-2015

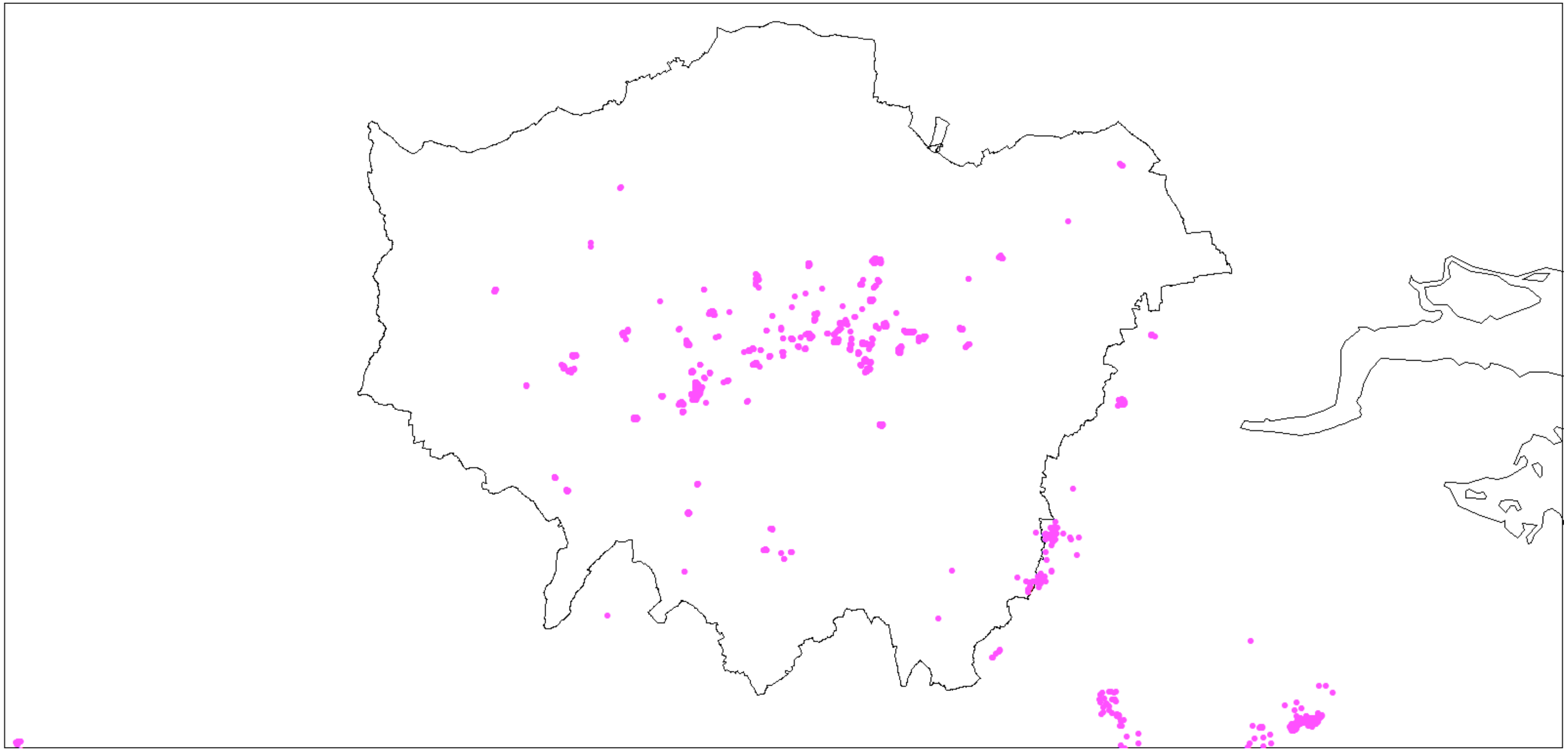


Figure 4: Altnets in London and surrounds end-2016

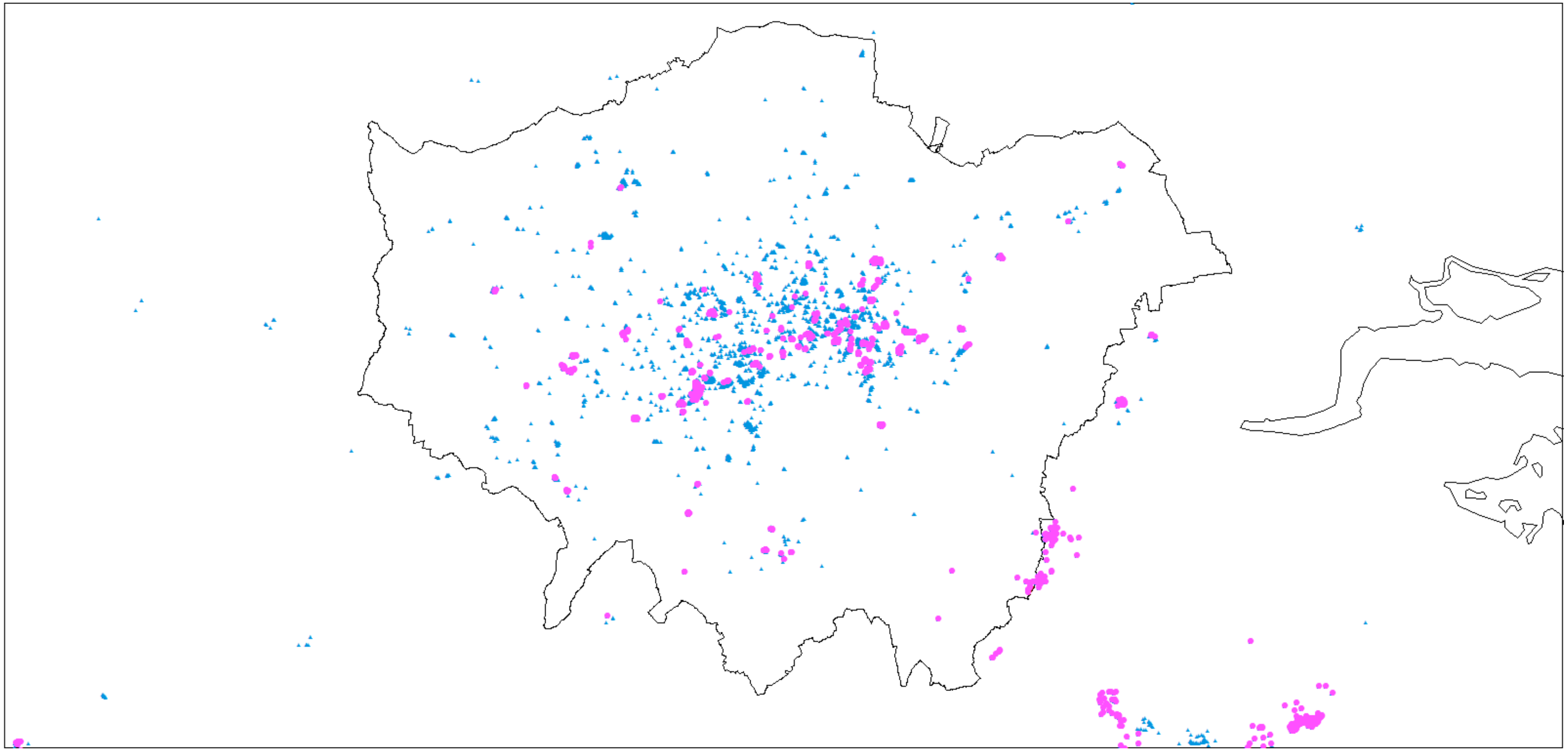


Figure 5: Altnets in London and surrounds end-2017

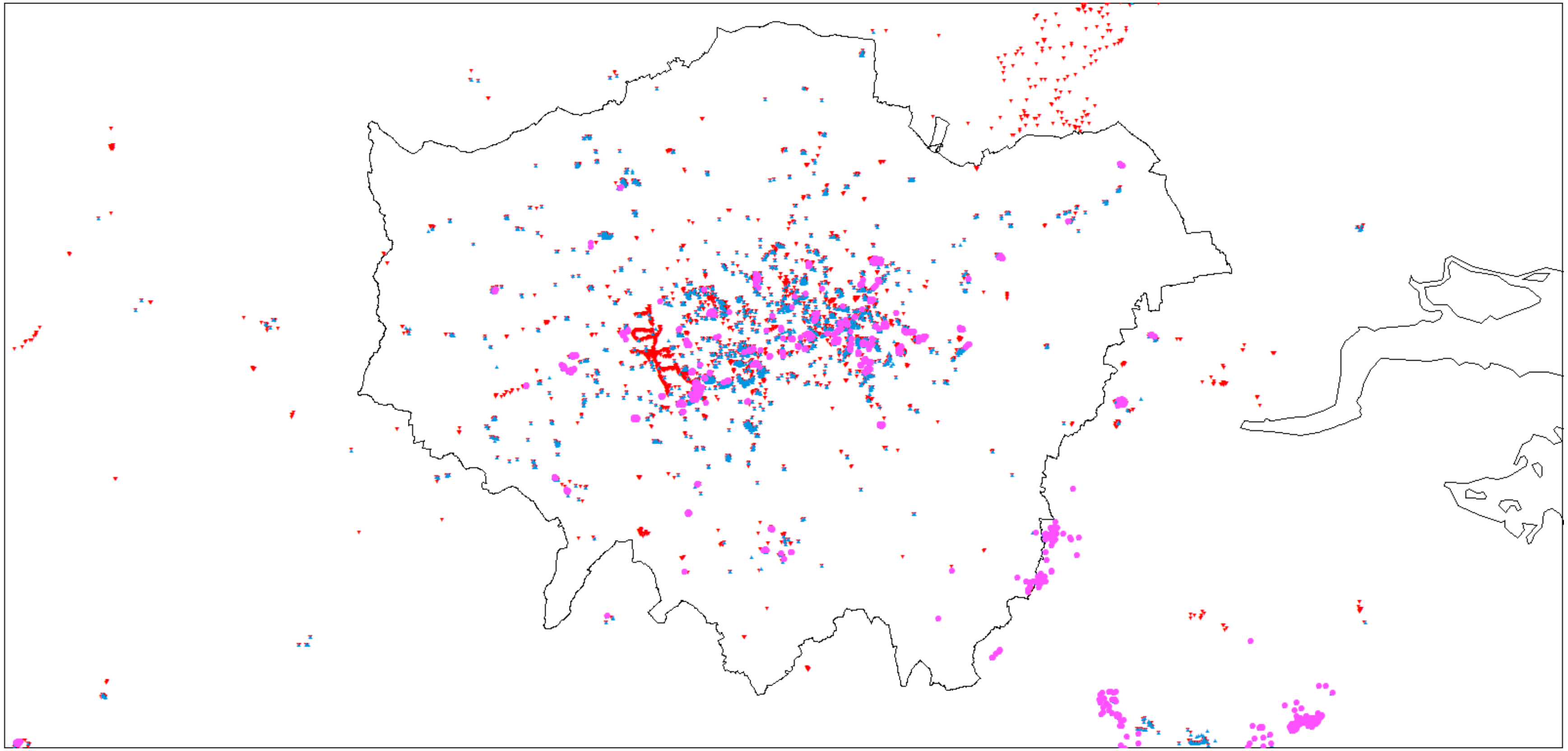


Figure 6: Fixed superfast and ultrafast altnet coverage in the UK, end-December 2017

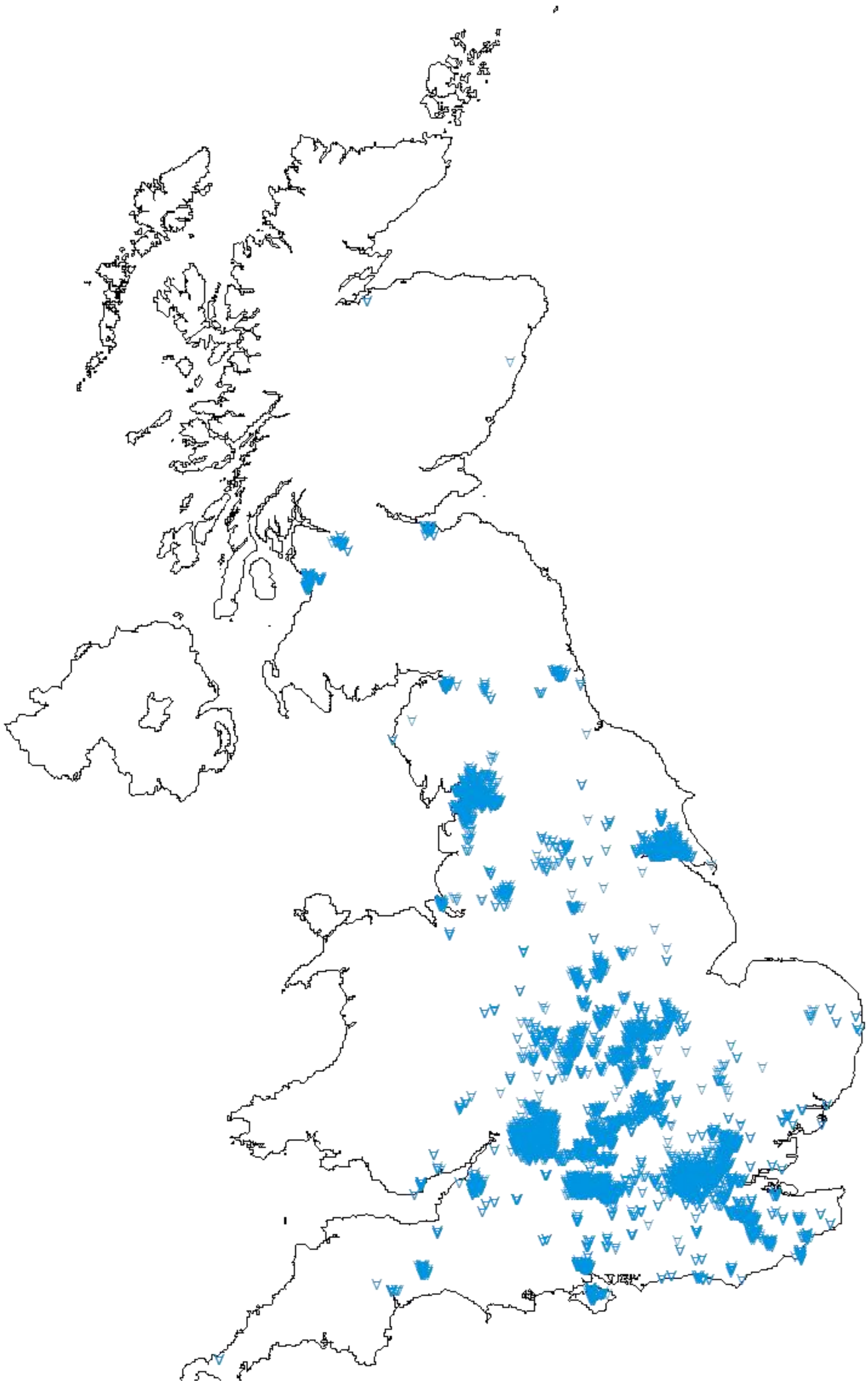


Figure 7: Altnet FWA infrastructure, five of the leading providers, end-December 2017

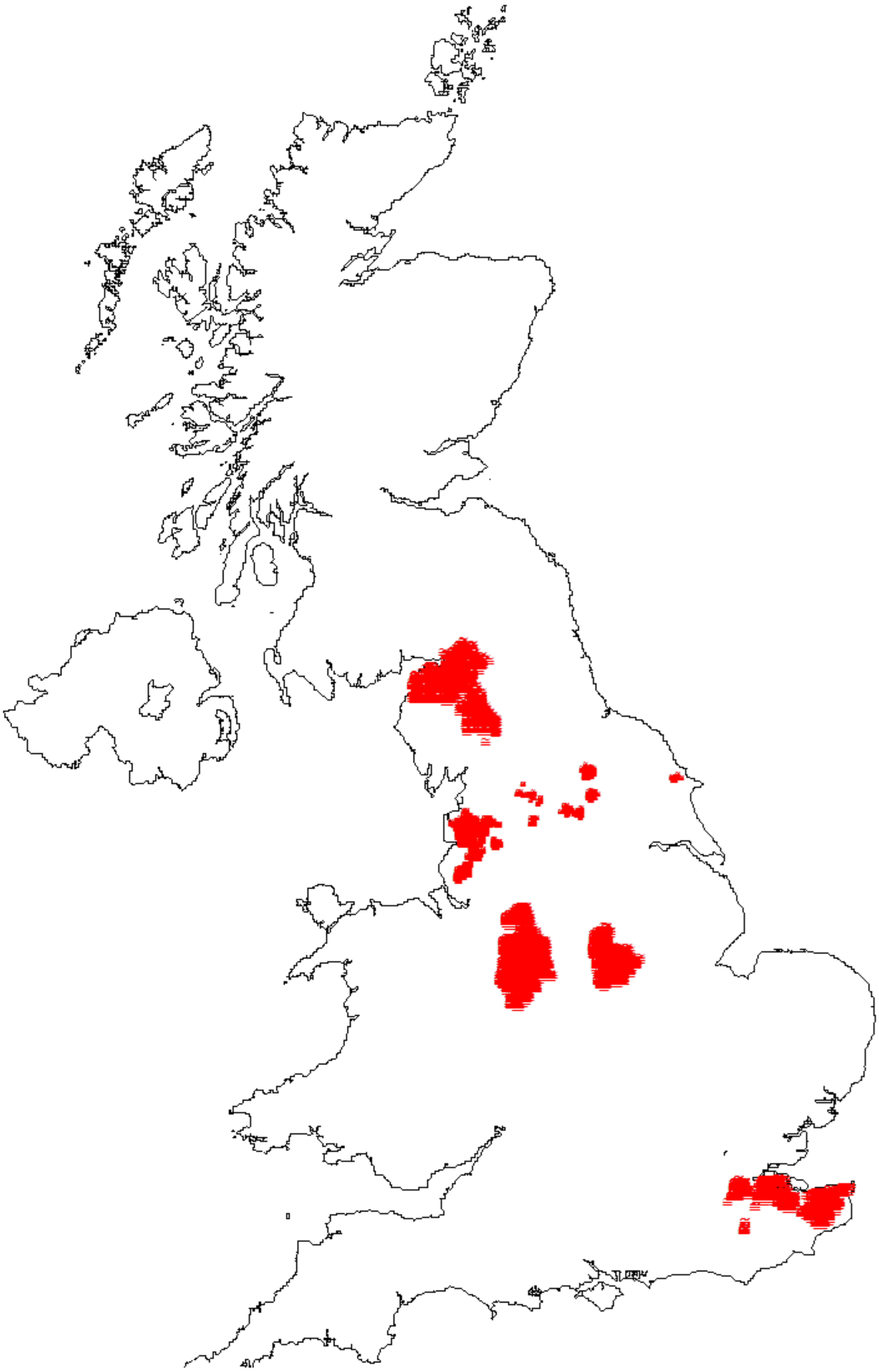
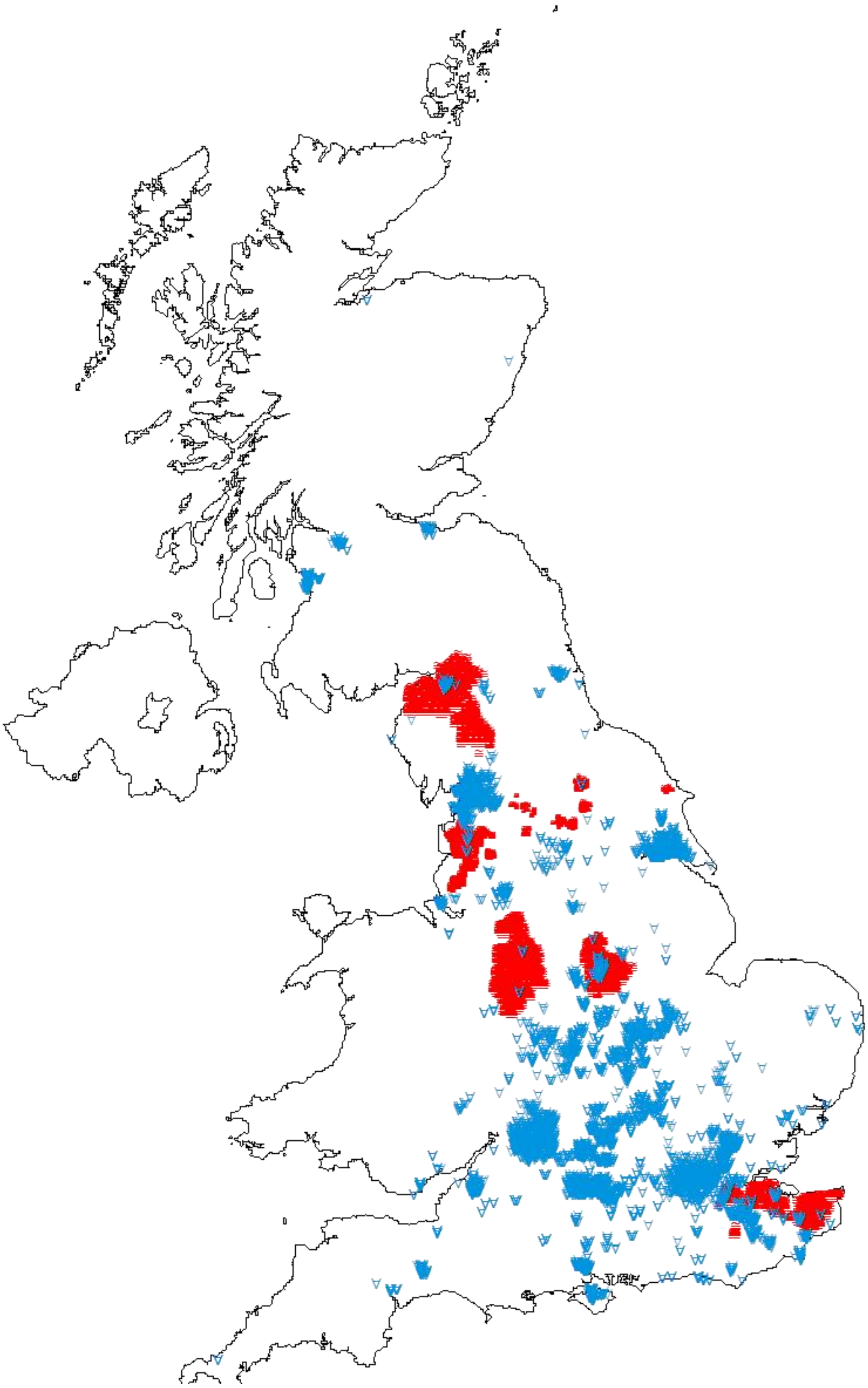


Figure 8: Altnet fixed and FWA infrastructure, end-December 2017



6. Altnet sector investment

The past year has seen increased activity in terms of investment in the UK's alternative network sector and there have been a number of investment announcements. These add up to over £2.5 billion worth of private investment into the sector over the long term.

Key announcements include:

- Gigaclear – £111 million in additional equity funding from existing and new shareholders
- TalkTalk – Heads of Terms with Infracapital, would enable a total investment of £1.5 billion
- CityFibre – first phase of Vodafone deal estimated to be worth £500 million over 20 years; and recently raised £200 million
- Hyperoptic – secured additional £100 million from consortium of European banks.

Furthermore, it is clear this investment appetite is not solely confined to the larger players.

- Ask4 – Bowmark Capital backs buy-out for an undisclosed sum
- Community Fibre – £11.3 million of private equity investment
- ITS Technology Group – £4.25 million facility provided by Maven Capital Partners
- TrueSpeed – Aviva Investors committed £75 million to support full fibre rollout
- WarwickNet – Acquired by CableCom for an undisclosed sum
- WightFibre – Acquired by Infracapital, which is providing £35 million in DIIF funding (see below) for a full fibre network across the Isle of Wight.

The UK Government launched its £400 million Digital Infrastructure Investment Fund (DIIF) on 3 July 2017, intended to "unlock over £1 billion for full fibre broadband, and kick-start better broadband connections across the country," according to HM Treasury.

It is managed and invested on a commercial basis by private sector partners, generating a commercial return for the Government, and is designed to ignite interest from private finance to invest in the sector, resulting in more alternative providers entering and expanding in the market.

Many of the smaller altnets, both fixed and FWA operators, taking part in our survey noted their capex plans for 2018 and 2019. These stand at nearly £24.6 million for 2018 and £37.5 million for 2019. However, this is clearly only part of the sector.

A summary of selected investments are detailed in Table 3 below.

Table 3: Altnet investment announcements

Altnet	Investment announcement
Ask4	02/18 Bowmark Capital, a mid-market private equity firm, finalised a deal to back the buy-out of Ask4. Bowmark is acquiring its interest from Ask4's previous institutional investor, Darwin Private Equity, and is investing alongside the current management team in support of the company's continued expansion in the UK and overseas
CityFibre	09/11/17 Vodafone deal covering up to 5m premises – first phase comprising 1m homes estimated to be worth over £500m over 20 years 05/07/17 raised £185m at 55p per share with intention to raise further proceeds through an accelerated bookbuilding process. In addition, intends

	to raise further gross proceeds up to £15m through non-underwritten offer for subscription. Underwritten by Citigroup, finnCap, Liberum, Macquarie 14/12/15 £80m of new equity and £100m in debt facilities 17/01/14 £16.5m raised in float on AIM
Community Fibre	12/07/17 £11.3m of private equity investment from RPMI Railpen and existing shareholders 12/2015 Enterprise Investment Scheme offer was launched for equity funding, oversubscribed and brought in around 30 investors funding
Gigaclear	09/03/18 Infracapital, the M&G Investment Management fund, offered to buy Gigaclear for £270m in cash 05/05/17 £111m in additional equity funding – existing shareholders Infracapital and Woodford committed to investing £60m and £15m respectively with other shareholders contributing a further £1m. RPMI Railpen is new institutional investor with £35m 14/01/16 secured a EUR25m committed debt facility from the European Investment Bank BDUK funded contracts in Devon, Somerset, Gloucestershire, Herefordshire and Northamptonshire
Hyperoptic	28/07/17 £100m consortium of four 'tier one' European banks – BNP Paribas, ING, RBS and Dutch investment bank NIBC Previously received funds of over £75m including in 2016 when the European Investment Bank agreed to provide £21m; in 2013 acquired equity investment led by Quantum Strategic Partners Ltd, a private investment vehicle managed by Soros Fund Management LLC
ITS Technology Group	12/17 A further £1m investment in ITS Technology Group from the Northern Powerhouse Investment Fund. This is part of the £4.25m facility provided by Maven Capital Partners. The investment will be used to continue to expand the ITS fibre network and strengthen sales and operational capabilities. This positions Maven as ITS' biggest shareholder, with a shareholding of 27 per cent 15/06/17 £2.2m Maven Capital Partners as first institutional investor 20/09/16 Enterprise Investment Scheme of £1.6m by private investors
TalkTalk Group	08/02/18 Heads of Terms agreed with Infracapital, infrastructure equity investment arm of M&G Prudential, for creation of an independent company with Infracapital funding 80% and TalkTalk 20%. Potential equity investment of up to £500m enabling total investment of c.£1.5bn
TrueSpeed	11/07/17 Aviva Investors committed £75m to support roll out of full fibre broadband network across South West England to accelerate expansion strategy to pass up to 75,000 homes and businesses in region
WarwickNet	16/01/18 CableCom Networking acquired WarwickNet for an undisclosed consideration
WightFibre	08/11/17 Infracapital, infrastructure equity investment arm of M&G Investments, acquired WightFibre and will invest further £35m to fund expansion of infrastructure with full fibre network across Isle of Wight

Source: Altnets

7. Altnet sector concerns

The INCA survey asked altnets to rate how concerned they were about a number of issues in terms of challenge to their network deployment and ability to offer services to and acquire customers.

The top three concerns are:

1. Overbuild by Openreach or other operators
2. Access to suitable backhaul services
3. Engaging with developers and/or local authorities on new build housing plans.

Planning and street works delays and costs is the next priority.

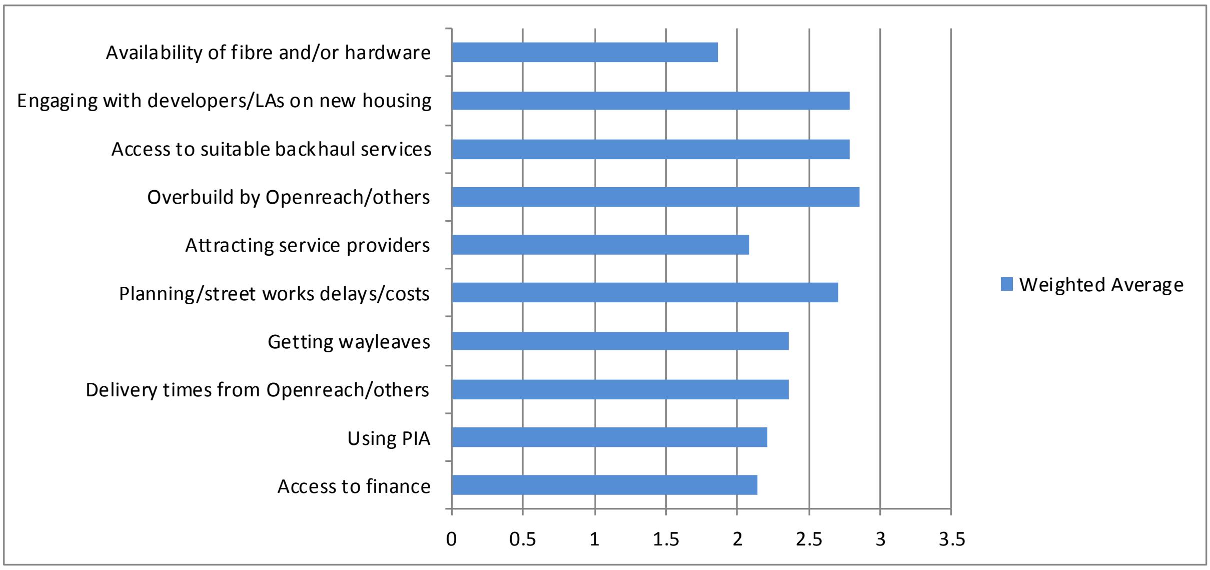
This is followed by getting wayleaves and delivery times for services from Openreach and others.

Work is being carried out including that by the Barrier Busting Task Force at the Department for Digital, Culture, Media & Sport (DCMS), other Government departments and local authorities on a number of these concerns, in particular on street works and wayleaves.

We will repeat this question in future surveys in order to track progress on key concerns and identify any new issues arising.

Figure 5 lists the full range of responses.

Figure 5: Altnet concerns



8. Appendix A

INCA/Point Topic altnet survey spring 2018

1. Your Details

Name

Company

Email Address

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2. What type of networks do you build? (tick all that apply)

	Fibre to the Premises (FTTP, FTTH) active or passive
	Fibre to the Building (FTTB)
	Ethernet/Leased line
	Fibre to the Cabinet (FTTC) LLU
	FTTC - Fibre to the Node/SLU
	FTTC - G.Fast
	Hybrid Fibre Coax (HFC / DOCSIS 3.x)
	Fixed Wireless Access using unlicensed or lightly licenced spectrum
	Fixed Wireless Access using licenced spectrum
	FWA - Point to Point
	FWA - Point to Multipoint
	Satellite Broadband
	Other (please specify)

3. Coverage
How many premises do your **fixed** networks pass – split by residential and business?
End-December 2017
Do you anticipate by the end of 2019
Your longer term aspiration by the end of 2025

4. How many premises are within coverage range of your **wireless** networks – split by residential and business?
End-December 2017
Do you anticipate by the end of 2019
Your longer term aspiration by the end of 2025

5. How many **end-users** are connected to your networks – split by residential and business?
End-December 2017
Do you aim to connect by the end of 2019
Your longer term aspiration by the end of 2025

6. What is your overall capital expenditure?
Current financial year
Next financial year

7. How much do you spend on operating and maintaining the network/s?
Current financial year
Next financial year

8. How would you rate the following issues in terms of their challenge to your network deployment and ability to offer services to and acquire customers?

Please rate issues on a scale from 1 - 'Not an issue' to 5 - 'Very significant challenge'

	Access to finance
	Using Passive Infrastructure Access from Openreach
	Delivery times for services from Openreach or other operators (e.g. EAD circuits)
	Getting wayleaves
	Planning and street works delays and/or costs
	Attracting service providers to deliver services over your networks
	Overbuild by Openreach or other operators
	Access to suitable backhaul services
	Engaging with developers and/or local authorities on new build housing plans
	Availability of fibre and/or fibre related hardware

9. Please note any specific comments that you may have on the above

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10. Are there any other issues you would like to raise?
(please specify)

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11. Point Topic collects postcodes in order to map the coverage of broadband networks. We would be most grateful if you would email an Excel sheet listing your coverage postcodes, ideally noting maximum speeds available to end users in each location if this varies – tick the option below to be contacted by us:

Please contact me on

DONE - THANK YOU FOR YOUR HELP