An exploration of UK full fibre broadband

Simon Hunt
For a few dollars more

A tale of:
• Grabbing the money
• Self-inflicted wounds
• Twists and turns
• Winning

But no engineering.........
UK Full Fibre Broadband

For a few dollars more

A tale of:
- Grabbing the money
- Self-inflicted wounds
- Twists and turns
- Winning

Told with some economic and engineering and insight.....................
Infrastructure
Grabbing the money and self-inflicted wounds

- 29m UK Homes, not evenly distributed
  - 68%* Gigabit capable
  - 37%* FTTP
- Two incumbents Openreach and VMO2
  - Homes passed
    - 8m Openreach
    - 2m VMO2
    - 6m 100+ Altnets
- Plans to cover 55m homes passed

Goodness = \frac{1}{\text{Badness}}

* Ofcom Connected Nations Autumn 2022
Infrastructure

An access network needs a core and metro networks too

ISPs and London Internet Exchange See Record UK Data Traffic
Thursday, Oct 20th, 2022 (2:15 pm) - Score 1,896

Internet traffic across UK broadband ISPs surged last night on the back of several Premier League football matches streamed on Amazon, which resulted in data usage across the London Internet Exchange (LINX) reaching a new record peak of 7.179Tbps (Terabits per second) and TalkTalk hitting 9.105Tbps.

The new peak record of 9.105Tbps was set on TalkTalk’s network last night at 9:20pm, overtaking their previous record of 8.715Tbps set on April 27th. A similar surge was also witnessed by other ISPs and can be seen by viewing yesterday’s aggregated traffic data from LINX, which handles a key chunk of UK and global data traffic through their switches via around a thousand members (broadband ISPs, mobile operators etc.).

However, LINX does not provide a complete overview of the internet traffic flow from all ISPs, but they do give a useful indication of how much traffic is flowing around when compared with normal conditions.
Infrastructure

Its not all about networks

Operating model is key
• Retail is more complex than wholesale
Systems are key
• Low automation holds back growth
Service
The customer perspective

**PRICE**
The headline retail prices have changed little over 5 years

**ACTIVATION**
A two-week wait is acceptable, two months is not

**SPEED**
I want to feel the speed

**RELIABILITY**
Always on
Importantly, 42 of our CP customers have already signed up to the Equinox pricing deal on our full fibre platform. And we continue to strengthen our CP relationships. For example, Sky’s engineers can now connect their customers to our network directly.
Service Innovation

Service Provider Engineer

Agree FTTP Sale
Align installation appointment
Place Openreach order
Openreach build from the kerb to the wall

Drill hole in wall
Check light on fibre
Match the Appointment
Openreach Issue installation task to contract

Install ONT
Plug in router
Clean up
Test & Demonstrate

Unappointed task is more efficient
Missed appointment rate is lower
Failure rate is much lower

Contract for your own installation work
Feel The Speed

You get what you measure

Figure 12: Average 24-hour download speeds, by broadband package: March 2022 (Mbit/s)

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<td>TalkTalk</td>
<td>451.6</td>
<td>303.9</td>
<td>159.9</td>
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<td>Virgin 516 Mbit/s</td>
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Ofcom broadband speeds published October 2022
The Final Scene

- Embrace uneasy partnerships
- Beware the twists and turns
- Be prepared to disrupt
- Don’t be fooled by illusions

But there are a few dollars more to be found in full fibre broadband