

The network is optical all the way to your home.

Gigaclear is always at, or near, the top of the speed charts.

It's not near the 1Gbps value as many of the users take the lower speed packages.



If you take the 1Gbps (1000Mbps) service this is the speed you will expect to get, all day, every day.

The Gigaclear optical Network always runs at 1Gbps, but you pay less if you don't want that much bandwidth.

The H50 service is limited to 55Mbps. The H100 service is limited to 110Mbps etc.

The network is symmetrical, you get the same speed for upload as for download.

Just received nearly £8M from a single investor.

Means they are allowed to dig up the road, etc.

See previous page!

## Who is Gigaclear?

- Privately funded telecoms company founded in December 2010
- Code Powers granted by OFCOM in May 2011
- Completed 9th 1000Mbps pure fibre network in May 2014, 4 more to go live by Summer 2014
- Consistently rated as one of the fastest ISP's in the UK
- Shortly to launch wholesale offering with a range of ISP's



Hope to start digging on ours in September

As the fibre is a utility they have to share it, just as BT, British Gas, etc. have to.

Gigaclear are an ISP, but while they are still fairly small there are only niche ISP's wanting to share.

But as they grow the Infrastructure, bigger ISP's are sure to want to join in.

Aiming to be the rural de facto, as OpenReach are for the towns.

All underground, so not affected by the weather. Once it's in, the only sign will be new Tarmac.

It's going to be in the ground for 50+ years. So even if you don't want it, it's there for the next owner. (Very big selling point!)

## What does Gigaclear do?

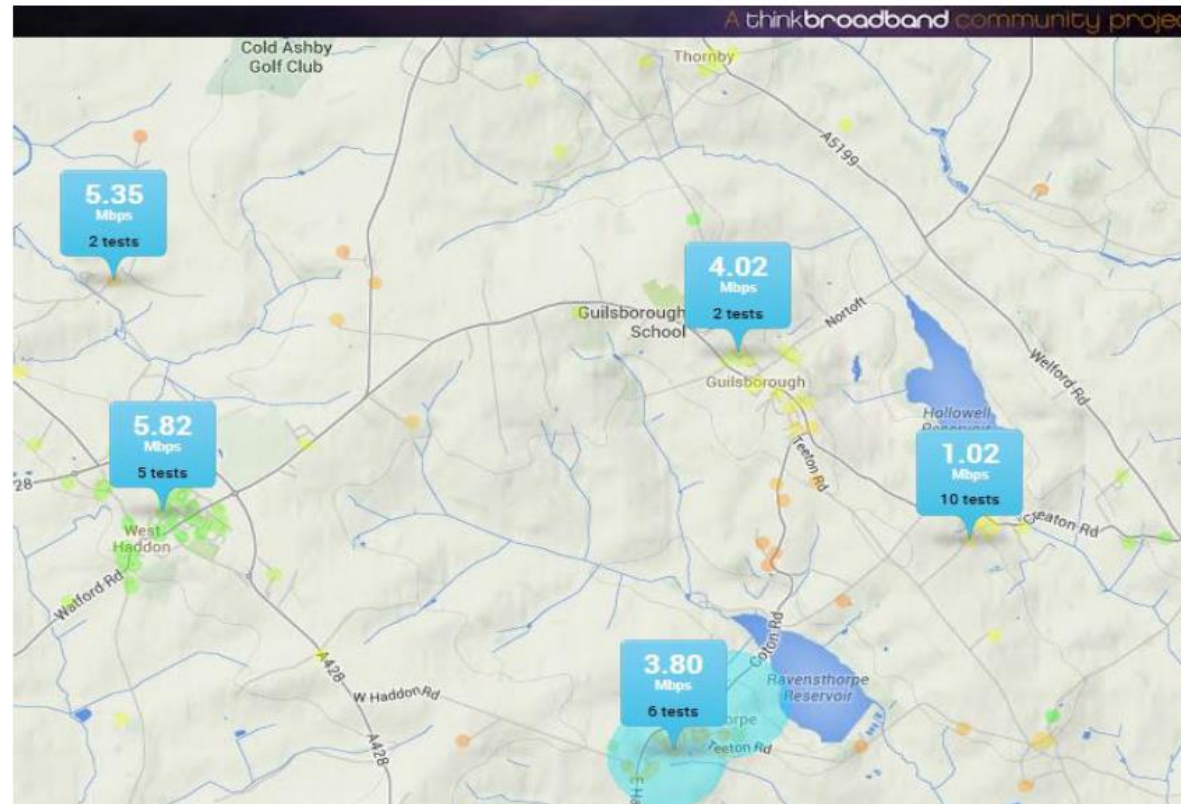
- We build pure fibre ultrafast broadband networks in rural communities
  - All underground service
  - 1000 Mbps symmetric network
- Connected to the UK's national fibre backbone
- Every property gets a connection point
- In parallel with existing copper based network
- Compliant with national regulations and local local authority & highways standards
- Use professional experienced contractors as used by other telecoms providers and utilities



It's fibre all the way from your home to the world.

It's totally separate from your existing telephone lines. (See later for how you don't need BT for your telephone calls.)

# Why are we here?



**Gigaclear**

There is a national push to get super fast broadband to 90+% of homes.

The County Council are Co-ordinating this in Northamptonshire.

(See website on the next slide).

Super fast broadband is defined as 24Mbps.

As you can see the communities currently get significantly less than that.

The screenshot shows the website header with the title "Superfast Northamptonshire" and the tagline "PROVIDING ACCESS TO SUPERFAST BROADBAND FOR ALL BY 2017". A search bar is located in the top right. The navigation menu includes links for HOME, BIG PICTURE, NEXT GENERATION STRATEGY, BT PARTNERSHIP, INTERVENTION AREA, DEPLOYMENT MAP – WHEN & WHERE (highlighted), ROLL OUT, and PLANNING & SURVEYS. Below the navigation, there are logos for Northamptonshire County Council and SUPERFAST NORTHAMPTONSHIRE. The main content area features a blue banner with the text "deployment map-when & where" and a date "Last Updated 26-06-2014" circled in blue. A "BLOGROLL" link is visible to the right. The article text is as follows:

- Gigaclear has responded to the 2014 Open Market Review
- Gigaclear proposal to cover >5000 properties in Northants that were not due for intervention 'accepted'
- New coverage map imminent
- This means the areas proposed will have the best broadband in the country!

The Gigaclear logo is displayed at the bottom of the page.

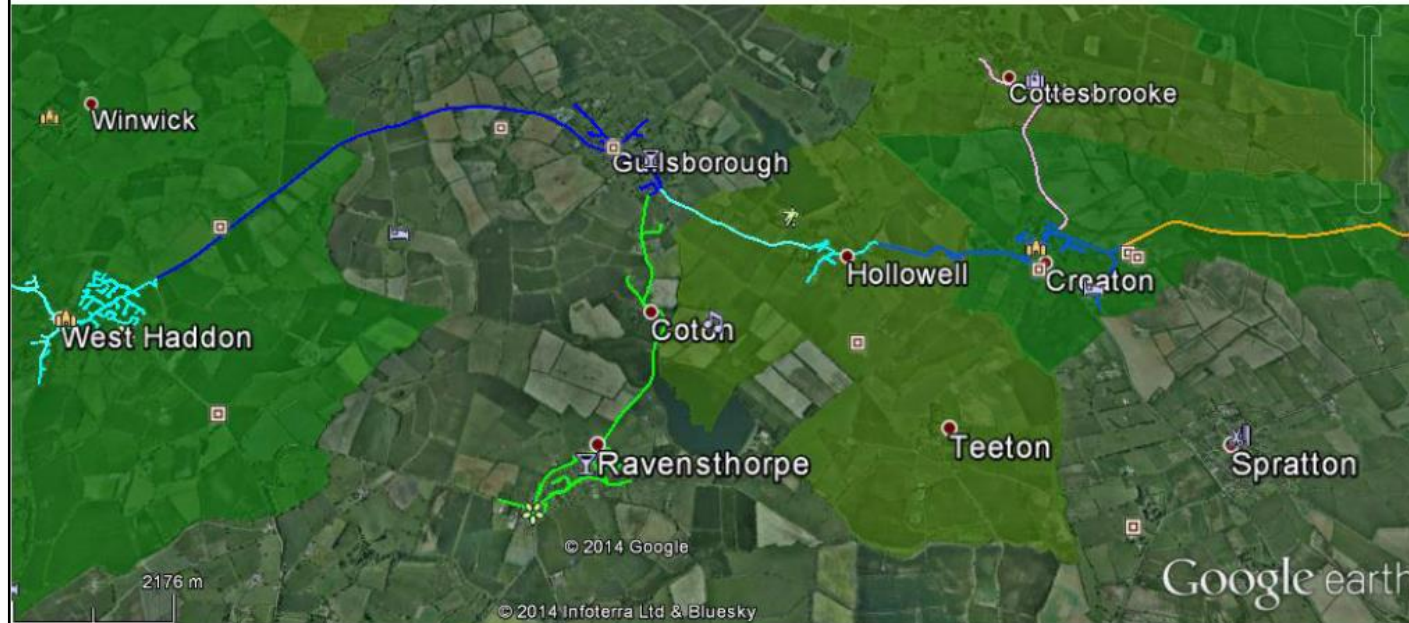
The process has been going on for some time and this is the second Open Market Review.

BT have shown no interest in supplying super fast broadband to West Haddon, Ravensthorpe or Guilsborough in either review.

NCC are delighted that Gigaclear are planning to provide a better solution, at a better price, than suppliers in other parts of the county.

This is an evolving plan!

## What are we planning to do?



**Gigaclear**

The first stage is to join West Haddon to the core network near Crick, and then to move out to Guilsborough, Coton and Ravensthorpe.

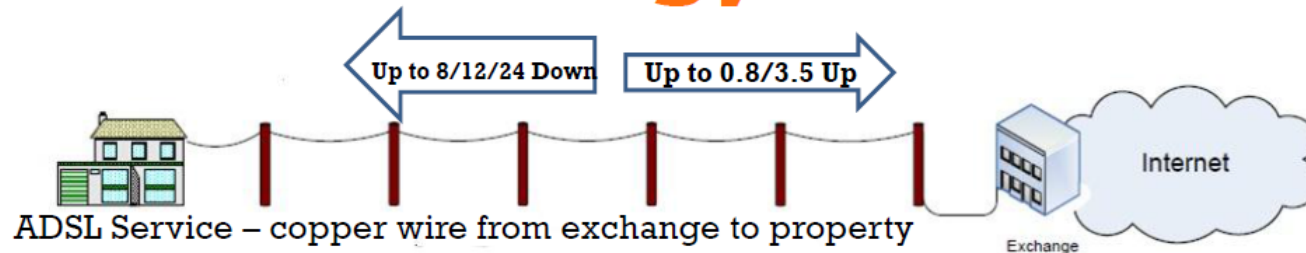
The hope is to start digging in September and have all properties running well before Christmas.

Once the first stage is finished, the deployment will then move to Hollowell and beyond.

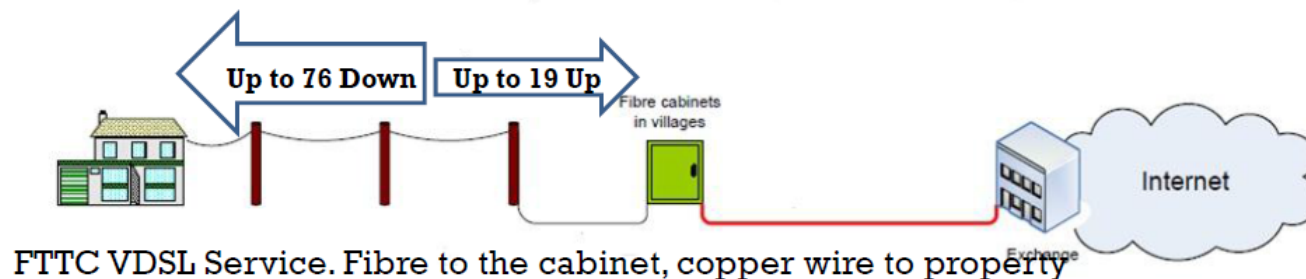
If you are on a private road, or there is some other impediment that you are aware of, then please let Gigaclear know. (They would rather hear of the same problem from 5 people now, than at a later stage in the planning.)

# Technology choices?

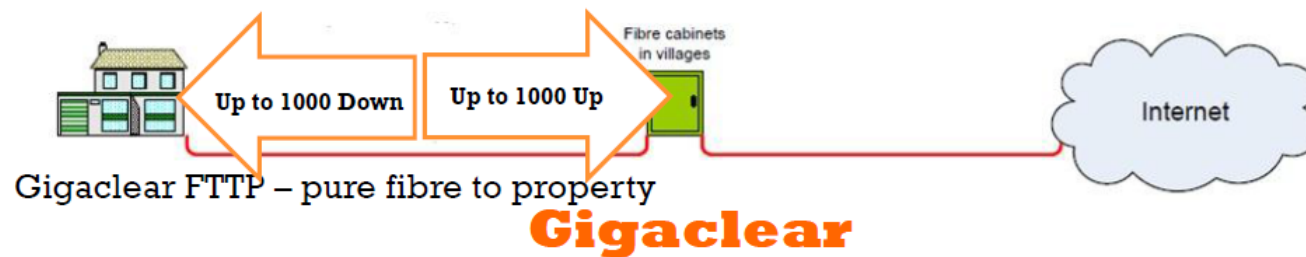
Your current service



BT Infinity, Sky Fibre, etc. have shown no interest in supplying this to us.



Gigaclear, fully optical system



The length of the often very old wire is the main limiting factor on speed. Affected by weather. Asymmetric.

Still has the old wire as the main limiting factor on speed. Affected by weather. Asymmetric.

No limiting factor on speed. Not affected by weather. Symmetrical.

You no longer have to meticulously plan ahead to achieve anything. You can just do it!

Transferring work is now a doddle. No more having to travel to work to perform the transfer.

## What difference does Fibre-to-the-premises make?

Typical Use	Typical Rural Time	Gigaclear Time
Download HD Movie	4 Hours	3-6 Minutes
Download TV Show	25 Minutes	20-30 Seconds
Upload Photo Album	1Hour plus	20-30 Seconds
Apple MAC OS download	6-8 Hours	2-3 Minutes
30Mb file Upload	10-30 Minutes	20-30 Seconds

- More free time
- Less frustration
- More entertainment
- More free or premium content

**Gigaclear**

Streaming TV now works without constant buffering.



Two of the early communities were surveyed

No more having to plan when you are going to upload that report, or having to tell everyone to stop browsing so that you can Skype the boss!

Covered in detail later

Low latency

Good broadband is a necessity to use these.

Network reliability is key

## What is it used for?

### Home:

1. All family members doing what they want simultaneously
2. Reliability – no distance, weather or 4pm issues
3. Skype video with friends and relatives
4. SmartTV
5. Catch up TV
6. Social Networking
7. Gaming
8. Phone & Mobile Signal boost
9. TV on demand (films, boxed sets)
10. Music on demand (Spotify, Napster, Sonos)
11. Home security/monitoring



It's the same speed 24/7

It works properly now with voices you can hear and video you can see.

Good broadband allows the use of 'Sure Signal' and other mobile signal boosters to give you full strength signals where you previously might have had none.

Two of the early communities were surveyed

## What is it used for?

### Small Business/Working from home:

1. Capacity for whole household/business to use Internet simultaneously
2. Reliability – no distance, weather or 4pm issues
3. Skype video/Video conferencing with colleagues
4. Multiple phone lines with no line rental
5. Instant backup, save to cloud
6. Application and data sync
7. Security



**Gigaclear**

Work efficiently without constantly waiting

It's the same speed 24/7

It works properly now with voices you can hear and video you can see.

When you share data with work servers or colleagues, they will be the bottleneck.

Plenty of capacity for many phone lines.  
(See later Vonage slide)

Very high speed, symmetrical service makes the cloud look like a local device!

Network reliability is key

Broadcast TV is dead – long live Internet TV (well it's going that way!)

BBC3 is moving to become a streaming only service – more will follow.

Catch up TV is only ever streamed across the Internet

4K TV requires at least 25Mbps in current trials. It's only ever likely to be streamed.

## SmartTV - relies on fast Internet

A *smart TV* device is either a television set with integrated Internet capabilities or a set-top box for a television that offers advanced entertainment and services

**NOW TV**  
Powered by sky

Your TV never looked so smart.

Our tiny little NOW TV Box. Your big TV screen. Get live and on demand entertainment straight to your TV. Big choice. Big screen. Tiny box.

With a NOW TV Box and a NOW TV account you can:

- Turn your TV into a smart TV
- Watch the TV that suits you with a Sky Movies Month Pass, Entertainment Month Pass or a Sky Sports Day Pass
- Access catch up TV including BBC iPlayer, 4OD and Demand 5
- Download favourite apps like Facebook and Spotify



**Gigaclear**

Ordinary TV's can be made smart with Now TV

Users can also buy Premium Sky content on a short term basis. Do you still need that huge Sky contract?

Three parts to the cost –

1 time connection  
 1 time install (or DIY)  
 Monthly fee

£43 per month?  
 I don't pay anywhere near that now!  
 (wait a couple of slides and we shall see...)

On such a high speed connection to the fibre Backbone, contention is unlikely.

Home user:  
 contention ratio is 25:1  
 Business user:  
 contention ratio is 10:1

See website for business prices.

## What does it cost?

### Gigaclear Home Broadband Products

Code	Product	Description	Usage Limit	Parental Controls	My Gigaclear website	Telephone Support 9-5 Working Days	Gigabit Router	Static IP Address	Connection Fee	Cost
H50	Home 50 Unlimited	50Mbps Downloads, 50Mbps Uploads	Unlimited	✓	✓	✓	✓	-	£100	£37.00/month
H100	Home 100 Unlimited	100Mbps Downloads, 100Mbps Uploads	Unlimited	✓	✓	✓	✓	-	£100	£42.00/month
H200	Home 200 Unlimited	200Mbps Downloads, 200Mbps Uploads	Unlimited	✓	✓	✓	✓	✓	£100	£49.00/month
H1000	Home 1000 Unlimited	1000Mbps Downloads, 1000Mbps Uploads	Unlimited	✓	✓	✓	✓	✓	£100	£69.00/month
BOOST48	Boost to Home 1000	48 hour boost to Home 1000 Unlimited	Unlimited	-	-	-	-	-	-	£4.80
Home Products Contention: 25:1				-	Not Available	✓	Included	✓	Included & Optional	All Prices Include VAT

**Gigaclear**

12 months minimum contract  
 PLUS 3 months rolling termination period

(3 months + 3 months for tenanted property)

Get that boost for :  
 LAN party  
 Children home from Uni  
 Show off to visitors  
 Very large up/download

It goes to every property!

Gigaclear only want to disrupt the community by digging up the road once, so they will provide fibre to all properties.

All properties already have a small pot around their boundary with the water meter and stopcock (it's the round one in the lower photo)

The Gigaclear pot will probably be nearby (it's the square one in the photo)

The engineers will suggest where they think is the best place to put the pot, but you can negotiate.

## How is Gigaclear installed?

- Gigaclear will deliver a fibre connection point at every property we pass at no cost
- It is installed in the verge or just inside the property boundary, underground
- To connect to the service a fibre cable needs to be connected from this connection point to the property
  - Self Install – no cost
  - Boxcom installation
    - Typically £95 (for 20M)



**Gigaclear**



It's going to be in the ground for 50+ year. So even if you don't want fibre broadband, the pot is there for the next owner. (Big selling point!)

The right hand photo shows a Boxcom installation (darker Tarmac and white conduit)

Self install instructions are at [www.Gigaclear.com/Documentation](http://www.Gigaclear.com/Documentation)

So you use your telephone for talking to people?

Essentially, you're just using your broadband for voice transport rather than BT's wires.

Your existing phones plug into the Vonage 'dongle', which then plugs into your router.

Your dongle 'becomes your telephone number' so you can plug it into broadband anywhere and receive and make calls as though you were at home. (Check with Vonage for any caveats to that.)

## Telephone service

Keep your phone number, use the same phones and save money



**No line rental** – saving around £150 a year!

**Unlimited Anytime calling package** - covers landline calls in the UK

**Over 20 free calling features** - including Voicemail to email, CallerID, 1471, call forwarding...

**No redial after 60 minutes** – no clock watching – Vonage is truly unlimited

**Unlimited International landline calls** – up to 49 countries with International call plan

**Excellent voice quality** – Vonage has consistent high quality and the service is highly reliable

**Number portability** – Choose any non geographic number as well as your existing landline number

**Unlimited free Vonage to Vonage calls to any country**

**1 month rolling contract** – from £6 per month

**30 day money back guarantee**



Keep your existing telephone number or choose a new one.

Each dongle can hold two telephone numbers and you can plug multiple dongles into your router.

If you have many lines, contact Vonage for their best solution for you.

There is a free App that will take voice mail. It provides an attempt at converting to text as well as holding the recording.

# How do Gigaclear prices compare?

Comparison of BT and Gigaclear Broadband and Telephony Services  
 Comparison made against pricing published at [www.bt.com](http://www.bt.com) 22/06/14 This DOES NOT include any promotions or extras such as BT Sport

	BT Unlimited Broadband Extra	BT Infinity 1 Unlimited	Unlimited BT Infinity 2	Gigaclear H50	Gigaclear H50 + Vonage	Gigaclear H1000 + Vonage
Transmission Medium to premises	Copper twisted pair	Copper twisted pair	Copper twisted pair	Optical fibre	Optical fibre	Optical fibre
Contract length	18 months	18 months	18 months	15 months	15 months	15 months
Installation (one-off)	Included	Included	Included	DIY or from £95	DIY or from £95	DIY or from £95
Connection (one-off)	Nil	£30	Nil	£100.00	£118.98	£118.98
Wireless Router	Included	Included	Included	Included	Included	Included
Line Rental*	£15.99	£15.99	£15.99	Nil	£6 (Vonage)	£6 (Vonage)
Service Rental	£16.00	£23.00	£26.00	£37.00	£37.00	£69.00
Typical Call Features**	£7.00	£7.00	£7.00	N/A	Included	Included
Anytime Calls	£7.00	£7.00	£7.00	N/A	Included	Included
<b>Service + Line Rental</b>	<b>£45.99</b>	<b>£52.99</b>	<b>£55.99</b>	<b>£37.00</b>	<b>£43.00</b>	<b>£76.00</b>
Maximum Download speed	16 Mbps***	38 Mbps***	76 Mbps***	50Mbps	50Mbps	940Mbps
Maximum Upload speed	0.8/3 Mbps***	9.5 Mbps***	19 Mbps***	50Mbps	50Mbps	940Mbps
Usage allowance	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

\* This is the monthly cost - if you pay 12 mo's in advance the cost is lower at £159.84

\*\* BT charges £3.50 per call feature eg ring back, call waiting, call barring, call diversion, 3 way calling - Vonage includes these and more in the call plan

\*\*\* Depends on distance from the cabinet and quality of wire - this is the theoretical maximum.

**Gigaclear**

On the left is the 'best' we can hope for on our existing infrastructure. (£45.99)

Assuming that you are wanting to continue with voice calls, the cheapest Gigaclear price is already less. (£43.00)

Now compare apples with apples (and just assume that BT would actually deign to provide fibre services) we would be looking at Infinity 1 Unlimited, which still has a much lower 'up to' speed and is significantly more costly. (£52.99)

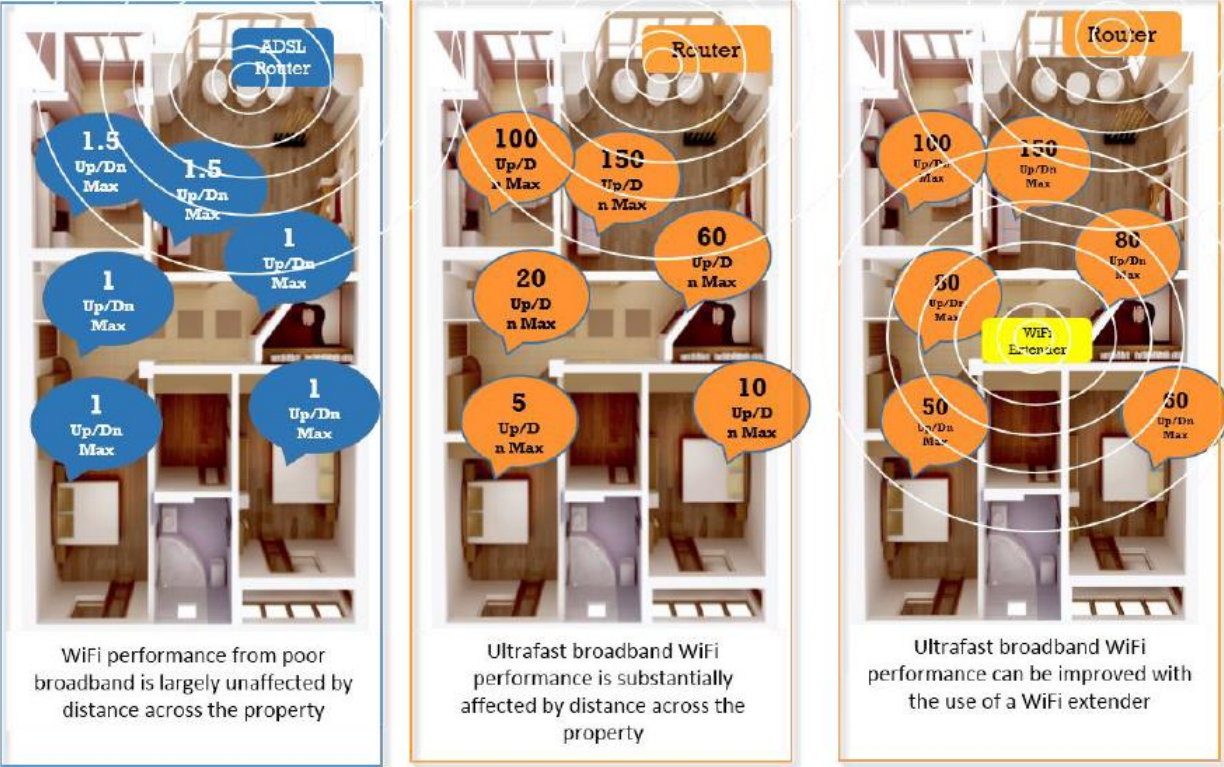
One thing to note is that there are some lower cost fibre bundles from BT with 10Gb/month download limits. But last year the average download per month across the country was 34Gb!

“Ya canna break the laws of physics!” - Scottie

Wireless signals have a limited range in ‘free air’. Place a wall in the way and it becomes much less.

With your existing router the throughput is limited by the broadband speed, and is so low to start with, that the degradation due to the wireless range is not noticed.

# What about Wi-Fi?



With good broadband, the wireless speed is the limitation on throughput and the signal degradation really becomes noticeable.

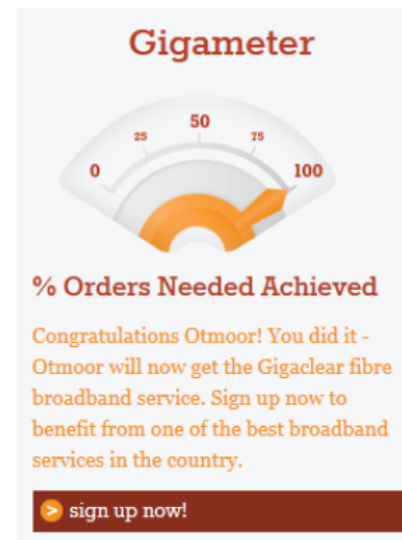
For many people it will become a requirement to employ some kind of boost to the wireless to maintain the speeds they become accustomed to.



If you want a faster Broadband, with a clearer Telephone, for a cheaper price then please sign up at your earliest convenience.

## What happens next?

- Gigaclear is planning to invest and build across your communities this summer, we only need 30% of you to place an order
- All you need to do is place an order online or via our paper forms, this signs you up for 15 months
- We DO NOT collect any payments until the network is being installed
- If you are in an existing contract don't worry, your Gigaclear service can start at the end of the contract if you can wait
- If you are a tenant you can have a shorter contract



**The sooner you order the sooner we will build – scheduled for September 2014**

**Order at [www.gigaclear.com/order](http://www.gigaclear.com/order)**

**Check Progress at [www.gigaclear.com/northants](http://www.gigaclear.com/northants)**

**Gigaclear**

We need to achieve a 30% signup rate for the scheme to go ahead.

Otherwise we are left with no prospect of super fast broadband in the foreseeable future.