

The logo for VUMA, consisting of the letters 'VUMA' in a bold, white, sans-serif font. The 'V' is stylized with a diagonal slash. The background is a solid magenta color with white wavy lines at the top and bottom.

Fibre to the home • www.vumatel.co.za

THE VUMA

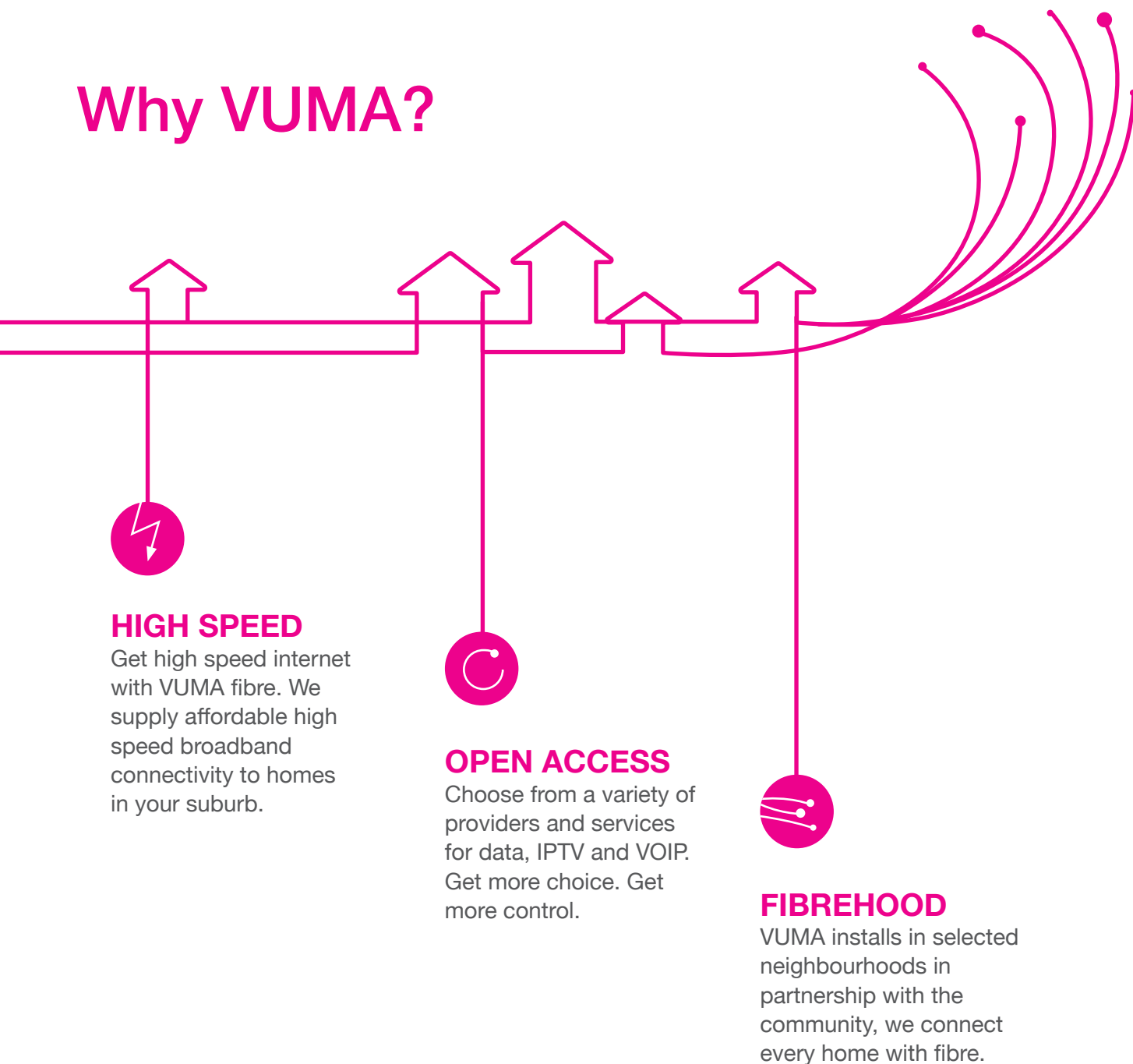
Fibre Manual

Who is VUMA?

VUMA installs fibre optic cables to all the homes in your suburb.

We only install in neighbourhoods in partnership with the community and with their support. We will connect every home with high speed open access fibre. You can then choose from a variety of providers and services for data, IPTV and VOIP.

Why VUMA?



Why Fibre?

Data use doubles every year. New services emerge that require proper bandwidth. It will become progressively difficult for any technology, other than fibre, to support the future demands for speed and capacity we need.



Better speeds

VUMA fibre is 250x faster than today's basic broadband. Fibre future proofs your home and supports a host of new and future services.



Improved security

Rolling out a fibre network makes it possible for CCTV camera's to be placed throughout the community. CCTV camera's are known to reduce crime and can play a significant role in improving the overall security in the areas they cover.

With fibre the high quality live feeds from the CCTV camera's are taken back to a central location via the fibre network. The live feeds enable appointed security providers to offer live monitoring of the areas covered as well as other services such as number plate and facial recognition.

VUMA is open access. We will work with any specialist CCTV and security providers chosen by the residents association to make this possible



New possibilities

Entertainment

Download the latest movies, HD TV shows, games and music in no time or stream TV over the internet.

Remote working

Work hassle free from home. Fibre upload and download speeds are significantly higher than ADSL. No more long waiting times to upload files or to send large files. Video conferencing is made easy.

VOIP

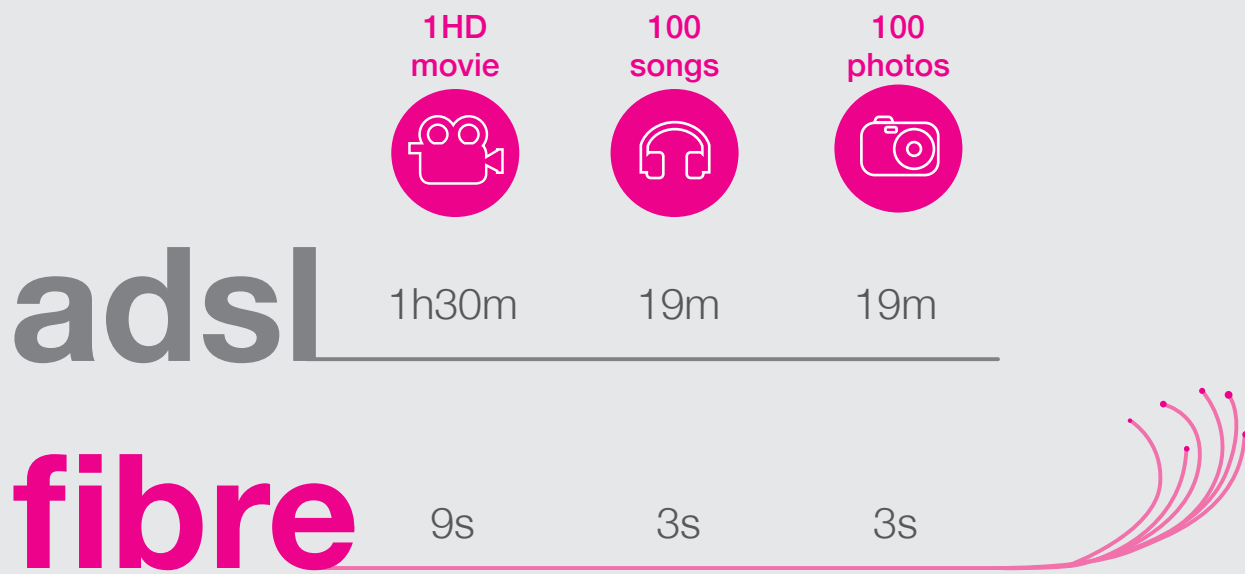
Cut your phone bill. With fast connectivity making calls locally and internationally from your home is cheaper with crystal clear quality.

Smart metering

Turn your house into a smart home. Measure water and electricity use. Remotely control devices, lights and appliances in your home.

What does high speed really mean?

The VUMA network is capable of delivering 1 Gigabit/second bandwidth to every home. This means you can download an HD movie in 9 seconds.



VUMA fibre is 250x faster than today's basic broadband. With fibre you get what you want instantly. It is more reliable and stable than ADSL which uses copper infrastructure.

adsl vs fibre

250x faster

More desirable homes

Another benefit of FTTH (fibre-to-the home) is the impact that it can have on the value of properties.

FTTH will increase the desirability of your suburb and your home. The latest research shows a clear link between broadband speeds and house price value. Recent studies have indicated that connecting your home with fibre will increase your property value up to 8%.

Upload photos
download games



Work remotely
conference via
videos



Download HD
movies



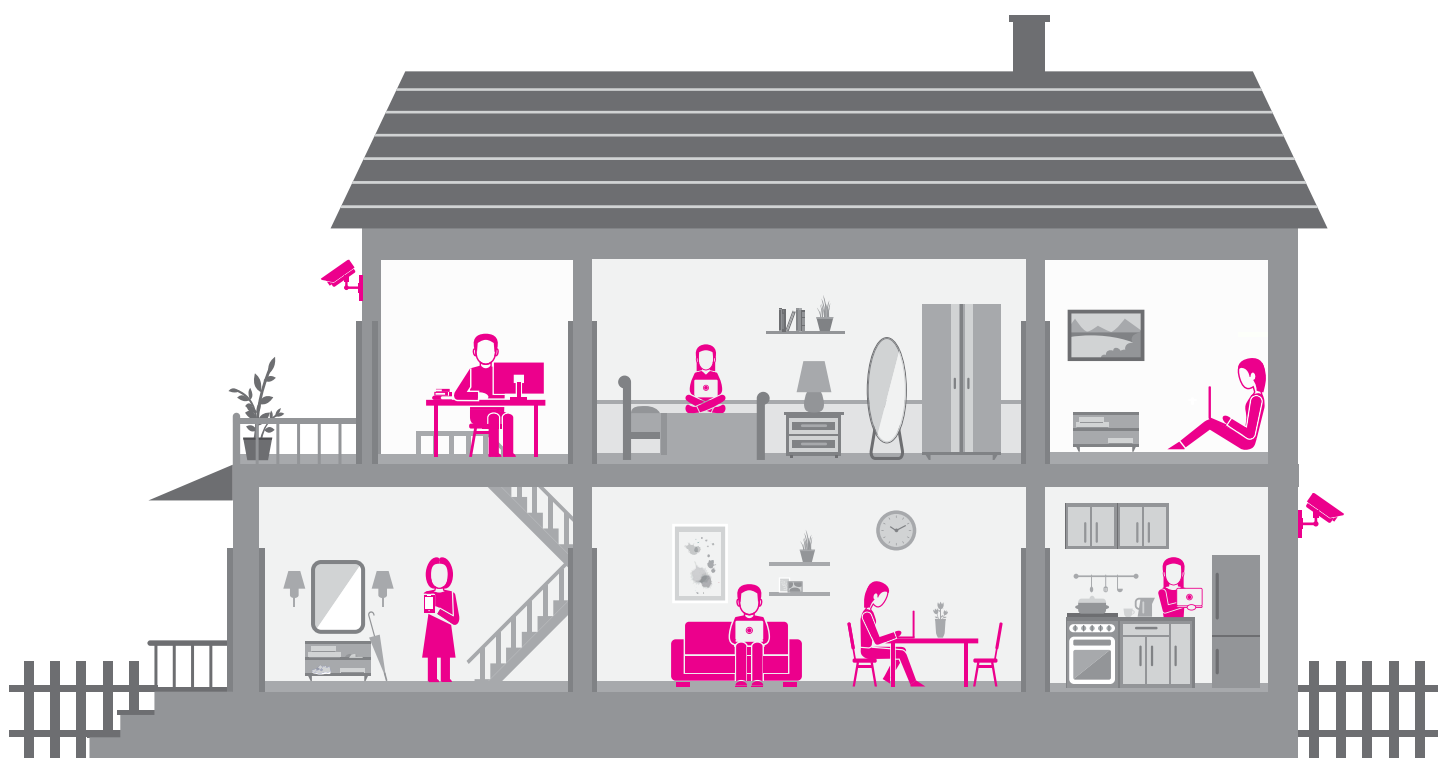
Social media



Home monitoring



VOIP



Source: <http://mybroadband.co.za/news/broadband/107554-how-to-easily-increase-your-homes-value.html>

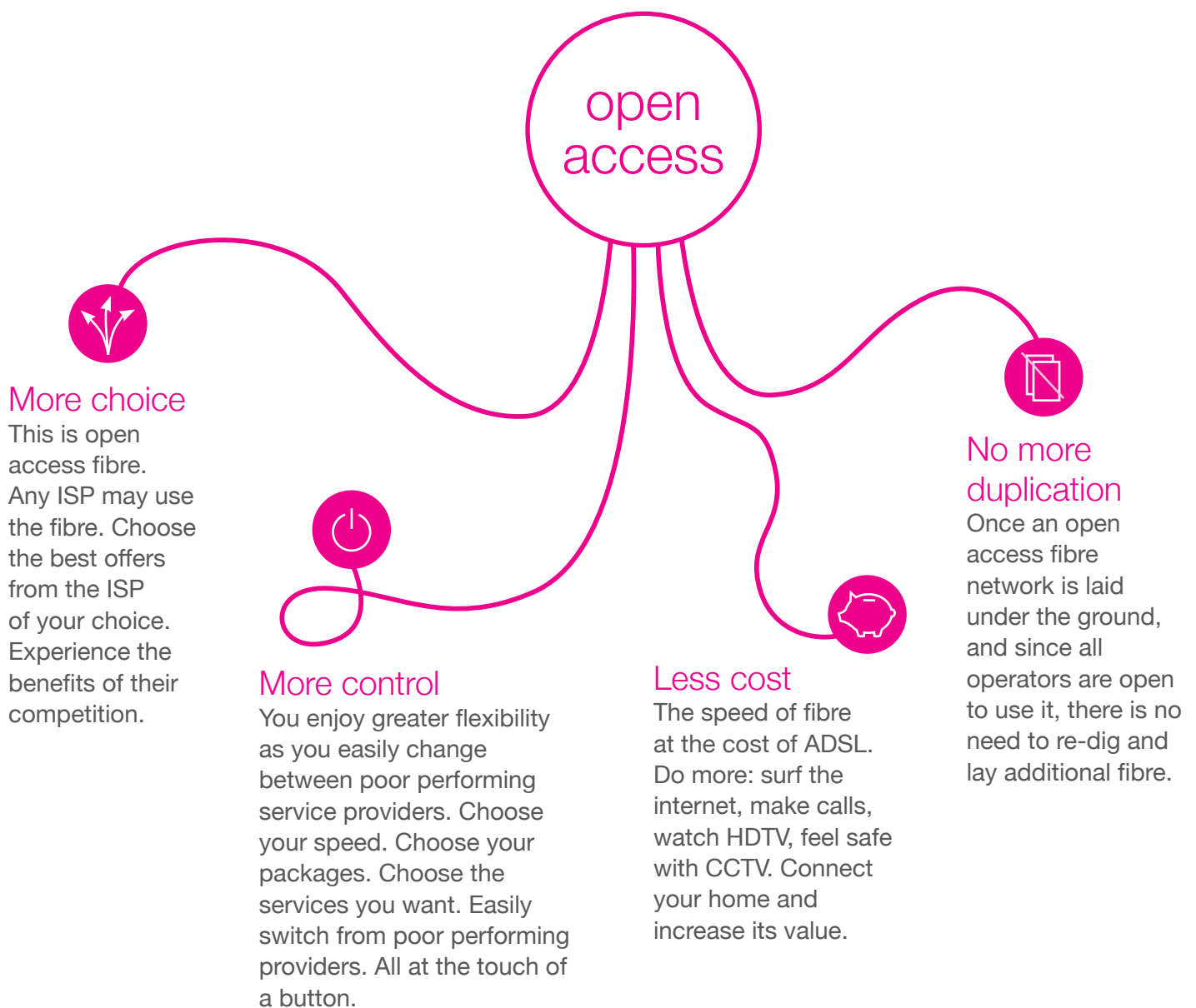
What does open access mean?

The VUMA fibre network is available to Internet Service Providers (ISPs) to supply you with their best offers.

We supply the common infrastructure whilst the ISPs compete for your business across it.

It is this separation of the infrastructure (the fibre cable) from the service (the data) supplied across it that makes VUMA different and brings you benefits.

We believe a separation leads to more competition that improves both price and service.



What can I expect to pay?

ONCE OFF INSTALLATION FEE

VUMA places a fibrebox on the boundary wall of every home at no cost. Homes that decide to take up a service will be charged R1710 to install the fibre into their home.

MONTHLY SERVICE FEE

VUMA is Open Access. Service Providers create their own packages over VUMA fibre. The service providers set prices and offers. They range from basic connectivity products, VOIP services, bundled services, triple play, month-to-month and contract options which gives consumers more choice.

The pricing is dynamic and driven by market forces as service providers compete. The current offerings can be found at VUMA's online portal **www.vumatel.net**.

The below table is a simplification of the packages & prices available. Due to the wide range of offers, the below is indicative. Please refer directly to **www.vumatel.net** for a full breakdown of charges and T&C's.

The VUMA line rental fees are included in the Service Provider's fees to you. Prices you see at **www.vumatel.net** are final monthly prices.

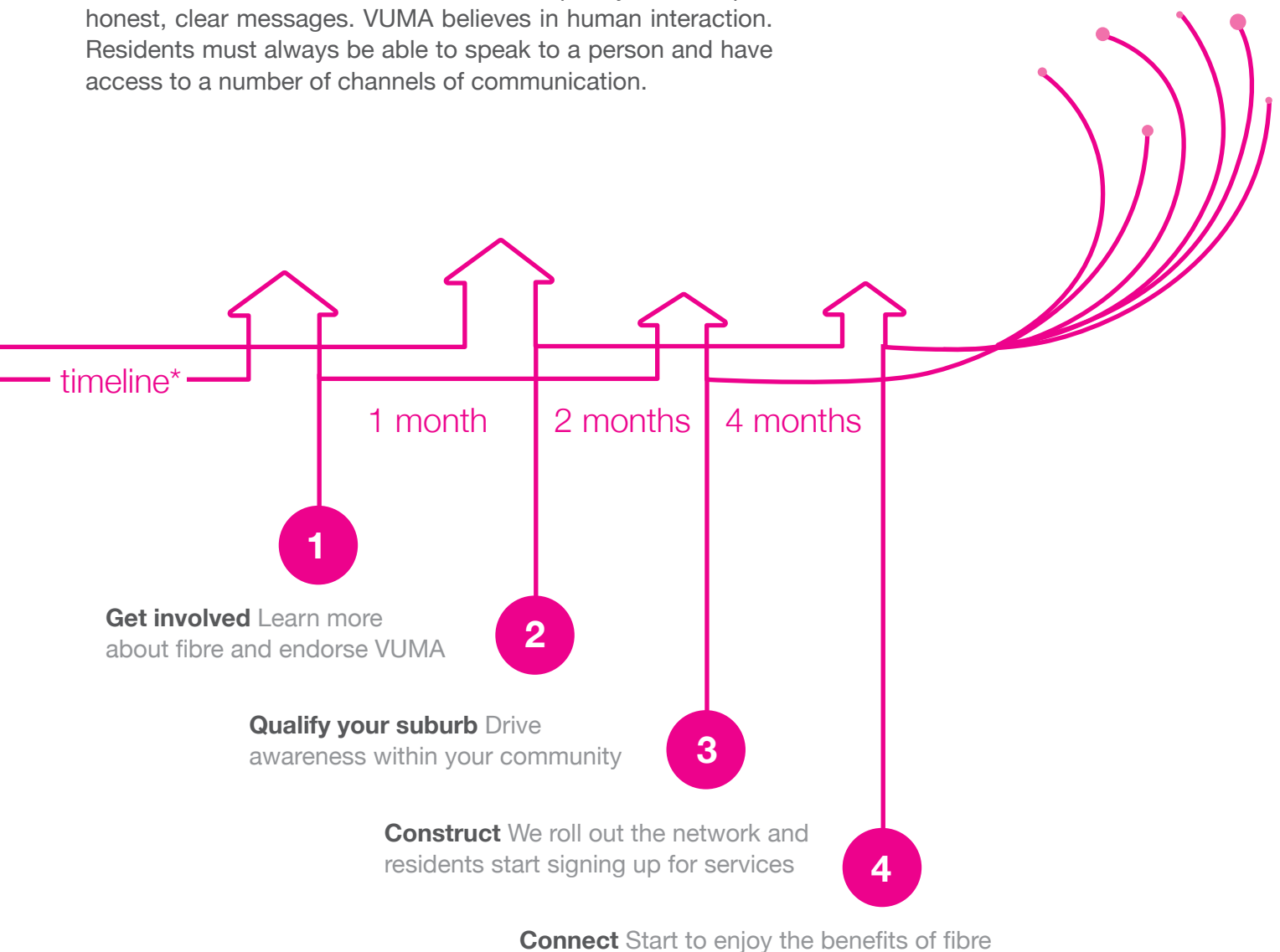
DOWNLOAD/UPLOAD SPEED	LOW USE	MEDIUM USE	HIGH USE
	(<100 Gb)	(100-500 Gb)	(Uncapped)
4/1 Mbps	R424	R449	R549
20/2 Mbps	R699	R769	R799
50/5 Mbps	R899	R999	R999
50/50 Mbps	R999	R1079	R1499
100/10 Mbps	n/a	R1449	R1999
100/100 Mbps	n/a	R1649	R2899
1000/100 Mbps	n/a	R2499	n/a

How do you become a fibrehood?

Community engagement is vital to successfully roll out a fibre network. The most effective way to do this is by getting the support and working with local Residents Associations (RA's) and Champions (volunteers keen on rallying the community) in the neighbourhood to drive the initiative.

There is no easy way to get fibre into the ground and although a painful process in the short term, VUMA views this as a joint project and will work with the community to ensure it is as seamless as possible.

Regular information sharing and managing resident expectations is critical. The secret is to communicate quickly with simple, honest, clear messages. VUMA believes in human interaction. Residents must always be able to speak to a person and have access to a number of channels of communication.



* Indicative timelines, subject to residents commitment and relative to sign up of other suburbs.

Steps to becoming the next VUMA fibrehood



1. Get involved - learn more about fibre

- We share an information pack about the benefits of becoming a fibrehood, use this to distribute to residents and meet with us to answer any questions you might have and endorse us to turn your suburb into a fibrehood.
- Help us define your fibrehood by supplying a map showing boundaries of your suburb, estimated number of households to be covered, and the percentage of residents signed up to the residents association.



2. Qualify your suburb – help us drive awareness within your community

- Use our toolkit to socialize the idea of FTTH in your community. Share information using templates, brochures and social media. Your community needs to understand the benefits, the costs, timelines and implementation plans.
- We present to your community at a town hall meeting to answer questions directly from residents.
- We activate your suburb on an online portal where residents express their interest for the project by completing a short survey. You will need to drive people to the portal.
- Once the expression of interest target level is reached, we start rolling out the network.



3. Construct - we roll out the network and residents start signing up for services

- Roll-out schedule is published
- We begin civil construction. We lay fibre and take it to the boundary of every property.
- Services and promotional offers are made available on-line for residents to sign up for services from service providers.
- Throughout construction we routinely communicate with residents to keep the community updated.



4. Connect - start to enjoy the benefits of fibre

- We arrange a time with residents who have signed up to install the fibre from the boundary into their home.
- It takes about 4-8 hours to complete this in-home installation.
- Residents can immediately activate their service on-line once this is complete.
- Enjoy the benefits of high speed open access fibre – surf the internet, download movies, make VOIP calls etc.





FAQ's

What is FTTH?

FTTH is shorthand for Fibre-to-the-Home. It means that a fibre optic cable is installed directly into your home. A fibre cable is a thin strand of glass capable of transmitting beams of light that deliver high-speed internet services significantly faster than traditional ADSL copper infrastructure.

What are VUMA's credentials?

VUMA is pioneering and leading the adoption of FTTH in South Africa. We successfully connected 2196 homes in Parkhurst to our 1 Gigabit/second network in 2014 and since then we have connected several thousand more homes in surrounding suburbs. We are continuously being endorsed by new communities to expand our footprint. See the coverage map on our website.

How does VUMA decide who becomes the next VUMA Fibrehood?

VUMA asks residents in suburbs to express their interest for fibre by completing a short online non-binding survey. Once the minimum level of interest has been reached, we will start building the network.

Where do I express my interest?

Go to www.vumatel.co.za and click on "show my interest". Enter your address and complete the survey.

What is the minimum level of interest required?

It varies from suburb to suburb and is dependent on the cost of building the network. On average we require about 30% of residents to indicate their support.

How does VUMA work with the community during the rollout?

A key aspect to our rollout is community engagement. We understand that getting fibre into the ground is a painful process and can be disruptive. It is critical to keep the community informed and give them someone to speak to. We communicate regularly, in an open and honest manner. We own up to mistakes or issues, accept criticism and take ownership of issues until they are successfully resolved. We set up various channels of communication including direct contacts (email, website, call centre, shop) and social media. We also have a resident liaison team who specifically look after communication and resident issues during the rollout.

What speeds are possible across your network?

The VUMA network runs an Active Ethernet technology that can deliver up to 1 Gigabit/second to every home. We offer both symmetric (down and upload speeds are the same) and asymmetric services. Each home also receives two dedicated fibres. There is no sharing, splitting, contention or shaping among residents on our network. We understand everyone is different and one size does not fit all. With Active Ethernet it is possible to provide residents with a range of speeds and packages from 4 Mbps up to 1 Gbps. For the full range of speeds and prices go to www.vumatel.net

VUMA uses Active Ethernet, while many others use GPON. Why?

In general there are 2 types of design for a FTTH deployment, namely GPON and Active Ethernet. Active Ethernet provides a number of benefits, especially in an Open Access model. It is more cost competitive long term, more flexible, has higher security levels, provides adequate capacity to allow traffic from multiple TV providers, supports a simplified and cheaper installation process of CPEs, facilitates flexible capacity management, allows for synchronous services, empowers end users to easily switch between service providers, enables different speed allocations in the network for various services and has a trouble-free process to introduce or upgrade services/providers to the network.

Is there shaping or contention on the VUMA Network?

No. Due to Active Ethernet and Point-to-Point topology there is no splitting, shaping, throttling or contention to the home. The speed subscribed for, is the speed received and not dependent on the behavior of other users on the network. We offer a speed test on our network that allows you to check whether the speed you are paying for is the speed that you are getting.

Can I get uncapped data packages?

Yes. There are both capped and uncapped packages. Visit www.vumatel.net to see what packages the ISPs have on offer.

How long are the contracts I have to sign?

There are both month-to-month and longer term contracts. Most of the packages are month-to-month and give you the flexibility to change between service providers. Visit www.vumatel.net to see what packages the ISPs have on offer.

Who do I pay? Will I get two bills every month?

You will pay VUMA a once off fee for the installation. Thereafter you contract directly for services with the service provider of your choice via the VUMA online portal (www.vumatel.net). You will therefore be billed only by the service provider on a monthly basis.

Who do I call if I have a problem with my service?

You report faults directly to your service provider. The service provider is therefore responsible for the first line support and has access into the VUMA Network to perform troubleshooting. If the service provider cannot resolve the issue they will log the fault with VUMA.

Can we use the fibre for the CCTV cameras in our suburb?

Yes. VUMA's network is Open Access and available to any security firm, including community security initiatives. This separation of the infrastructure from the service, does not bind the community to a single provider. It allows flexibility to change between security providers if the community is not happy with their service.

How will you get fibre into my home?

During the roll out, we trench and lay fibre cables down both sides of the pavement. We then connect a fibre termination box to the boundary wall of every home. Once this is complete, we define the home as being "fibre-ready." Up to this point, there is no cost to the resident or anyone in the community. Only if a resident decides to take up a service, they would order an installation to "run" the fibre from the fibre box on their boundary wall, into their home. This will incur a standard once-off installation fee.

Why do you need to trench? Is aerial fibre not cheaper and less disruptive?

Each method has its pros and cons. Aerial fibre is cheaper in the short term but has some major disadvantages. It is difficult to maintain since it runs on poles and can only be reached with

specialist equipment. It can look very messy over time and become a real eyesore. It is more open to damage and it is not easy to add capacity. Trenching is disruptive in the short term, it requires more capital and comes with the risk of damaging existing services. However once this short-term pain is over, it's protected, scalable, easy to maintain and out of sight.

How long will the construction phase take?

It depends on the size of the suburb, but in our experience it generally takes about 4 months to connect 2000 homes to fibre. The total duration is dependent on some external factors such as council approval or the weather.

How long will my home be affected by construction?

A block of houses takes about 10-14 days to complete construction depending on the size.

Will my suburb have to wait until every home has fibre to make use of the service?

No. We rollout the fibre in phases and as they get completed, those residents can connect and can start making use of the service.

Will you be digging up driveways and sidewalks in my suburb?

Yes. We cannot avoid this, as we need to provide a connection to each home. We will re-instate the driveways and sidewalks to their original or better condition. We will contact every resident prior to the trenching and explain the process. If we cause damage, we will repair it. Your resident association will be involved in signing off on the quality of the work. We take before and after photo's. We guarantee all driveways and sidewalks for one year.

What if you damage my property?

We will take every precaution that this does not happen. If we accidentally do, we will repair it. Please contact our project management team or VUMA resident liaison's responsible for the area.

What about safety and security?

We have dedicated health and safety officers on site. Barricading is erected around construction areas to prevent injury. Workers carry identification tags and sign in and out of site every day. If you are aware of any safety risk please contact us immediately.

When the construction is complete, what do I do to get connected?

We need to connect the fibre from the fibre box on your boundary wall to a suitable location inside your home. You can order this online via the VUMA website, our Call Centre, or the VUMA Shop. A convenient installation date will then be scheduled for you.

Do I need to be present for the installation?

Yes, or your household representative, provided they are 18 years or older. You will need to tell us where to place the Consumer Premises Equipment (CPE).

Do I need consent from my landlord?

If you are not the owner, we do ask that you obtain consent from your landlord before you order an installation.

How long does the in-home installation take?

The physical installation will take between 2-4 hours depending on the complexity of the installation.

What does the installation involve?

Once the fibre box has been installed on your boundary wall and the fibre has been tested, you are ready for your in-home installation. The installation involves running the fibre cable from the fibre box on your boundary wall into your home. The installer will drill a small hole through your boundary wall where the box is located and reticulate the fibre cable through your home to a device in your house called a CPE (Consumer Premises Equipment). The CPE device is a small home switch. It converts the fibre to Ethernet ports so you can connect to all your devices in the home. Once the CPE has been installed you can plug in your computer, and browse to the VUMA portal. From here you will be able to select a service from your desired service provider. Your service will provision within seconds, and then you're connected to high speed open access fibre!

How much does in the installation cost?

It is a once off cost of R1710 (Incl. VAT)

Is the CPE WiFi enabled?

No. You will need to plug your wireless router into the CPE to create your home's wireless network. Most of the service provider's offer free routers as part of their packages.

What line speed do I need?

The speeds indicate how fast you will download data from the internet. We recommend the 50Mbps for most home users and 100Mbps for the tech savvy, larger families, and homeworkers. If you really don't use the internet much other than email or booking the occasional thing online, then a 4Mbps or 20Mbps is for you.

Can I upgrade my line speed?

Yes. You can do this directly on the VUMA portal. It can be done with a click of a button. The higher speed service is available within 20 seconds.

What happens if my data bundle is used up?

This depends on your ISP. Some of them will offer top-up services, or others will apply out-of-bundle rates. Contact the ISP directly, or view their terms and conditions on the VUMA portal.

Can I port my existing phone number?

Yes. You can transfer your existing phone number to your new service provider. You will need to discuss this directly with the service provider of your choice.

Will there be 24hr support?




Who do I call?

For technical support, contact your service provider's support desk. The VUMA support desk operates Mon – Fri, 8am – 9pm and Saturday 9am-1pm. The VUMA Shop will be operational during normal business hours and on a Saturday from 9am until 1pm.

VUMATel

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Become a VUMATel fibrehood now!

-  Go to www.vumatel.co.za
-  Select “SHOW MY INTEREST”
-  Complete the non-binding survey

www.vumatel.co.za

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