An unofficial guide to setting up Vonage/VoIP on B4RN and notes on integrating with a home phone circuit

Introduction

So you’ve got your shiny new B4RN (Fibre To The Home) connection and you want to start using it for cheaper phonecalls without any traditional line rental costs! Well, read on and you’ll find it’s all pretty straightforward.

VoIP stands for Voice over Internet Protocol which is just a fancy way of saying ‘phone calls over broadband’. The quality and ease of use is much the same as a normal phoneline though do be aware it won’t work during a powercut because both B4RN and VoIP require mains power, so keep your mobile charged for emergencies during powercuts (or if your phoneline is absolutely critical then you could buy a UPS battery backup).

Vonage is one of the most established companies in the world for VoIP services and they have a good reputation so although there are other VoIP service providers, Vonage are the most popular option. Parts of this document will be more widely relevant but it has been written specifically with Vonage in mind. Other VoIP services providers can be found by searching online. Of particular interest might be pay-as-you-go VoIP services which can work out much cheaper if you only make occasional calls.

1. Vonage - Easy step by step

I suggest you read through all these steps before you place your order:

-1.1- Choose a Call Plan: First have a look at the current packages available on www.vonage.co.uk/call-plans - the standard is £8 per month (at time of this update) and includes unlimited free UK landline calls, but for a small extra premium you can get free calls to 60+ countries and/or free calls to mobiles. In most cases you can keep your existing number or you could choose to get a completely new phone number with a dialing code of your choice

-1.2- Call Vonage and Order: When you’ve decided on a package call Vonage on 0800 008 6000. They’re really helpful and friendly and will talk you through everything and check you’re happy.

If you want to keep your existing landline phone number and have it transferred to Vonage, then ask if Vonage have ever had any problems transferring numbers from your current telephone service provider. Most telcos including BT will release your existing phone number to Vonage on request, but some other telcos can be a bit tricky so it’s worth asking the question!
Tell Vonage your ISP is B4RN and that you’re due free activation (saving you £10)! You won’t get this discount if you order online.

Then tell them you’ve been referred by a friend (give friend’s name and Vonage phone number) and both you and your friend will get **two months free service**! You can use a friend, neighbour or local B4RN champion who’s already signed up to Vonage and share the benefit with them, or if you don’t know anyone on Vonage you can use my details as referrer (John Hamlett, #01524222335).

The only additional cost is £5 delivery for your Vonage Box (more info below).

By the time your call to Vonage is over your account will have been set up and a Vonage Box will be shipping out to you. Well done!

**IMPORTANT: DON’T TERMINATE YOUR LANDLINE YET!**

-1.3- **Plug It In**: A courier will deliver your Vonage Box a couple of days later. It’s very straightforward with colour coded connections (see *Useful hardware notes* on p6). Follow the included instructions in order, making sure you connect the blue cable to one of the four ports on the bottom of your B4RN box. Once the Vonage Box has completed it’s setup simply plug in one of your existing phones and you will be able to make and receive Vonage calls. Now you can try different setup options around the house (see p3-4).
-1.4- Try It Out: You now have a 30 day money back guarantee period. Try your Vonage phone and tell them if you’re unhappy with anything. I found everything worked really well and there are many special features like free ‘call waiting’, ‘caller display’, ‘answerphone’ etc that can be setup via your account on the Vonage website.

I had one problem that was resolved; I found voices were too loud so I emailed Vonage and they adjusted the volume remotely to a better level.

My only criticism now is that I have to dial the area code first when dialing local numbers. Unfortunately this will always be the case (except when using speed-dial for numbers in the phone’s memory). Oh well - I can live with that.

-1.5- Transfer Your Old Phone Number: When you sign up with Vonage they will give you a new non-geographic phone number (beginning ‘03...’), but in most cases you can keep your old landline number if you wish. Simply go to www.vonage.co.uk and log into your account’s control panel. In the main ‘summary’ panel click on the blue ‘add-ons’ icon (as shown on the left) and then select ‘move my number to Vonage’. There you can request the transfer of your existing landline phone number to your new Vonage line.

It usually takes a few weeks until the day of the transfer. You should receive an email confirming the day that the transfer will take place. You must leave your Vonage line plugged in during this period and you must have made at least one phonecall on it. Keep paying for your normal landline until the transfer is complete.

On the day of the transfer there may be a few hours disruption on incoming calls while your old number is in ‘no mans land’ mid switchover from your old telco to Vonage.

You’ll know when the transfer is complete because your landline will go dead, and your Vonage connected phone will now ring when people call your old number! Your existing telco (e.g. BT) should now send you your final bill, but if you don’t get confirmation from them ask them to send you your ‘FINAL BILL’. Do not ask for your line to be ‘disconnected’ as this is unnecessary and will usually incur a charge of around £150.

If you ever decide to leave Vonage they will allow you to transfer your number away again to a new telco/VoIP provider.

If Vonage seem to be having problems or delays transferring your phone number from your old telco, ask to speak to a supervisor and pressure them. If Vonage fail to transfer your number because your old telco won’t release it then let us know and we can warn others.

-1.6- Cancelled Your Broadband Yet?: If you haven’t already cancelled it, then getting your final bill for your landline will obviously disconnect your old ADSL broadband (presuming it’s on the same old landline). You will be asked to pay a £30 fee to have your broadband service switched off - this is normal and largely unavoidable.

You’re all done! Read on only if you want to play around with how you set up your phones around the house...
2. Optional setup with DECT phones or Homeplugs

It’s a no-brainer to connect a wired phone to your Vonage Box, beside your B4RN box, but what do you do if you don’t want to sit next to your B4RN box when you’re on the phone? You could of course use a long ethernet cable, or a long telephone extension cable; but if you want to avoid long leads you have two easy options:

- **2.1- Vonage with DECT phones:** These are digital cordless phones and so can have their base next to your B4RN and Vonage box but then the handsets taken anywhere you like around the house. Multi handset packs are available and extra handset bases can be put in other rooms.

- **2.2- Vonage with Homeplugs:** Homeplugs share B4RN’s local area network (including Internet) through your mains electric wiring. If you have a pair of Homeplugs you can plug one into your B4RN box and then plug in the other at your preferred location for a wired phone. The Vonage Box then plugs into the second Homeplug and gets the Internet connection it needs from there (see photo below). For this type of use I’d recommend a basic pair of 200av Homeplugs costing about £25. Solwise sell a range of excellent quality Homeplugs and offer proper UK based support.
Optional home phone circuit integration

It’s possible to enable your old home phone circuit with up to 5 phones for on your Vonage line. The following two setups are my experiments and are quite simple and effective. Many B4RN users have now tried these successfully, but I’m not a professional and it is at your own risk - I can’t offer support or warrantee (so if you’re unsure - hire a professional!). These setups are based on having the NTE5 linebox as your master socket - this was introduced by BT in 1991 and is still current (see Useful hardware notes on p6).

Note: I found that older phones’ bell’s didn’t ring unless I plugged them in through an ADSL microfilter (these used to be necessary for each phone on a broadband line).

-3.1- Adding Vonage at the master/primary socket

First to disconnect from the BT line! I removed the two screws on the front of the master linebox, and carefully pulled the faceplate out without dislodging any wires. This disconnects my home’s wiring from BT’s ‘test socket’ (the fundamental connection to BT’s line). This action is allowed by BT, as long as I don’t go any further!!

On the inside of the faceplate is a standard BT style phone plug (male) that sticks out of the back of the faceplate. I simply insert this phone plug into the supplied Vonage RJ11 (male) to BT (female) adaptor and voila! Now all my phones on the house circuit are functioning on my Vonage account. Simple.
### 3.2- Adding Vonage at a slave/secondary socket

First to disconnect from the BT line! I removed the two screws on the front of the master BT linebox, and carefully pulled the faceplate out without dislodging any wires. This disconnects my home’s wiring from BT’s ‘test socket’ (the fundamental connection to BT’s line). This action is allowed by BT, as long as I don’t go any further!!

I now go to a different phone socket on the house circuit and set up my Vonage Box there; first plugging it into power and the Internet (either using Homeplugs or plugging directly in to my B4RN box or ethernet extension).

Now the important bit - I then used a special ‘2 wire BT to RJ11 modem cable’ (see *Useful hardware notes* on p6) to connect the Vonage Box’s phone socket (RJ11 female) to the the phone circuit’s wall socket. This cable is shown in green on my diagram and costs about £1 on ebay. I found that an old modem dialup cable met the same specification, and even an ADSL modem cable when combined with a microfilter also did the job. The essential criteria seems to be that the BT plug (male) should only have two metal contacts (one in position 2 and the other in position 5).

**NOTES:**
- An optional 2-way splitter means I can plug both your Vonage Box and a telephone into the phone circuit’s wall socket.
- Phones over 5-10 years old seemed to need plugging in through an ADSL microfilter; I don’t know why but without this their bells wouldn’t ring.

![Diagram of domestic phone circuit wiring with optional 2-way splitter, 2 wire BT to RJ11 cable, and Vonage Box plugged into power and the Internet.](image-url)
4. Useful hardware notes

Above: New HT701 Vonage box with RJ45 network port, 12v power socket and RJ11 phone socket.

Right: BT NTE5 master socket showing both new (top) and old (bottom) branding. Bottom unit shows faceplate removed to reveal the internal ‘test socket’ which is the fundamental connection to BTs line.

Below: 2 wire BT to RJ11 modem cable - available on ebay etc (useful when I connected Vonage to my home phone circuit).
5. Using your smartphone with Vonage ‘Extensions’

I’ve been asked to include some additional information on a unique Vonage service called ‘Extensions’. Anyone with a Vonage account can set this up on their smartphone.

The free Vonage ‘Extensions’ app lets you make calls from your smartphone through your Vonage call-plan. You can do everything you’d do from your household Vonage phone including answer incoming calls, and make calls to anywhere in the world. But you don’t need to be at home to use it - all you need is a WiFi connection! So you can use it anywhere from your local cafe to your office in town, or even when overseas on holiday!

I’m told this is really handy for people who have all their contact numbers in their mobile phones and not in their landline ones. Also for people with poor mobile reception at home.

• You'll need a UK mobile number
• an iPhone® running iOS 4.3 or above or an Android™ smartphone (v2.2 or above)
• Download the Extensions® app to your smartphone from Google Play or iTunes®
• Follow the instructions in the app to link your smartphone to your Vonage account
• Start making unlimited calls on your smartphone