

## Guide to using Sipgate for your VOIP phone service

Once you have your B4RN fibre broadband service up and running the first thing you will probably want to do is to say goodbye to those monthly line rental charges, which, if you still want a regular 'landline' telephone means taking a VOIP (Voice Over Internet Protocol) service. For simple plug-and-play Vonage is the obvious choice and has a lower monthly charge than a regular landline, but if you want *no* monthly charge at all, then German company Sipgate's 'Sipgate Basic' service is worth considering.

<http://www.live.sipgate.co.uk>

### Advantages/Features

- Sipgate has the choice of PayG (Sipgate Basic), or various monthly call packages.
- You can use either your choice of regular phone with an adaptor, or a VOIP phone, or a computer based 'soft' phone, the latter being not dissimilar to using Skype's paid service.
- You can choose any primary UK area code, then pick one of 5 offered phone numbers. e.g. you can choose 01524 and a 6 digit number beginning 88-, but not area code 015242 unless you're keeping your present number.
  - Free call forwarding
  - Free web based SMS
  - Free voicemail
- You can have more than one phone number - one per email address. You just need to buy an Analogue Telephone Adaptor (ATA) that supports the number of lines you want. This could be good if you've got a houseful of teenagers who all want their own dedicated phone line. You could then let them pay for their calls out of their own money!
- PayG service is reasonably priced for calls to UK landlines. At time of writing it was 1.18p/min with no connection charge, while many overseas landlines cost 1.9p/minute to call.
- You can choose to hide your own number when calling out, or display a different number. For instance I choose to display my mobile number. Displaying any phone number that does not belong to you is likely to become illegal if it is not already by the time you read this so do check the law on this.
- My combination of phone and ATA used with the B4RN service has resulted in audio quality somewhat better than I was getting with my copper wire landline.
  - My choice of ATA (Grandstream) gives me the ability to hold 3-way conference calls

- Sipgate to Sipgate calls are free.

### Disadvantages

- Not plug and play. Requires entering a fair bit of information on a couple of web forms, following a supplied Sipgate guide.
- If you want/need to keep your existing phone number the transfer costs £30.
- PayG price to call UK mobiles is high (9.9p/min) compared to, say, Three Mobile PayG (3p/min). Overseas mobiles are also expensive to call.
- A copper wire phone will work during a power cut because telephone exchanges have banks of batteries, unlike any VOIP service, unless you have a backup power supply (UPS).
- For the purpose of emergency calls ensure that your Sipgate account has your correct geographical address recorded. This would only be an issue if your billing address is different from where your Sipgate phone service is, in which case you would need to manually correct the 'Emergency Address' on your account page on the Sipgate website.

### General comments

The basic setting up is not too arduous. For extra features the plethora of choices can seem a little daunting. For instance, for voicemail you can choose to use your own telephone, Sipgate's voicemail service, or the voicemail option built into your ATA (analogue telephone adaptor, the bit of kit that links your phone to the internet). I use our telephone's built-in answering machine because it's a doddle to use, I can ring into it remotely and I'm already familiar with it. For comments on hardware choices, see my Hardware Choices section at the end.

### Equipment required

- A computer with ethernet socket (RJ45) and a browser, only for set-up. "Windows or Unix, not MacOS" says the Grandstream user guide but my old MacBook Pro with an ethernet socket seems to be OK with it.
- An Analogue Telephone Adapter (ATA). Before purchasing make sure it is a brand supported by Sipgate (see below). I bought a Grandstream HT702 which gives the option of having a second phone line and optional additional phone number. One ethernet cable (RJ45 to RJ45) is included. I paid just under £40 delivered. So, if you want 4 phone lines, the Grandstream HT704 would be the 4-line equivalent ATA. You wouldn't *have*

to use Sipgate as your VOIP provider for your other lines. Theoretically you could choose any VOIP provider and telephone number from around the world...

<http://www.ebay.co.uk/itm/Grandstream-HandyTone-702-HT702-2-Line-Analogue-SIP-VOIP-Adaptor-/122122482024>

- An RJ11 to BTS Adaptor (a short lead that converts a U.S. phone plug to a UK phone socket). Under £4 delivered.

<http://www.ebay.co.uk/itm/UK-BT-Socket-To-RJ11-Plug-Adaptor-With-Telephone-Ringer-/160853680991>

- An extra RJ45 ethernet cable
- A telephone! Anything will do, but I can recommend our 'Gigaset A540 Trio' (from £60 delivered) which has an answering machine, 3 wireless handsets and good sound quality. It is easy to use.

<http://www.ligo.co.uk/gigaset-a540a-trio>

### How to connect your B4RN Router, ATA, Telephone and Computer

- a) Connect the supplied ethernet cable (RJ45 to RJ45) from your B4RN router to your ATA
- b) Take your RJ11 to BTS Adaptor lead, plug the RJ11 end into the ATA's first FXS (phone) port (marked as No. 1) and plug your phone into the BTS socket at the other end of the lead.
- c) Plug in your ATA's power supply.
  - the above connections remain in place permanently
- d) For setting up only, connect another ethernet cable from your B4RN router to your computer.

### The Set-up procedure for Sipgate VOIP using a Grandstream HT702 ATA

These instructions apply only to these Grandstream HT7\*\* ATAs, but will give you a good guide to the sort of thing that is involved should you buy a different ATA.

Pick up your phone, dial \*\*\*02 and listen. That is, you dial 'star-star-star-zero-two'. A voice will tell you your ATA's (local) IP address. Write this down, then with everything connected as above put this address into your computer's

web browser and press Enter. It will be something like 192.168.1.125. You don't need to add http:// etc.

This will give you access to the Grandstream's Control Panel. From here on you follow Sipgate's guide to setting up. The following link shows which ATAs Sipgate supports.

<https://basichelp.sipgate.co.uk/hc/en-gb/categories/200656382-Setting-Up-VoIP-Phones-Devices>

The Sipgate guide will give you (almost) everything needed to set up your Grandstream ATA. After filling each of the two web forms, do scroll down to the bottom and choose 'Apply' so that you don't lose the data entered. If you want to use 3-way conference calling or get into more esoteric stuff such as free IP address to IP address calling it would be as well to also download the Grandstream User Guide from the Grandstream website, link below, and click on "HT701/702/704 User Manual".

<http://www.grandstream.com/support/resources/?title=HandyTone%20702/704>

### Using Sipgate when you are away from home

I mentioned that my Three mobile offers cheaper calls to mobiles. For calls to landlines, Sipgate calls are slightly cheaper than Three. When you are on the move and have access to free Wifi, you can make calls on your mobile from your Sipgate account by downloading the app: Zoiper and registering your Sipgate account within it. For instance this could be handy when you are abroad and want to make a call to a UK landline.

### Hardware Comments

Telephones: Gigaset has had good reviews in Which? and our Gigaset A540 Trio uses plain english text in its menus - no obscure icons to learn. It also has good audio quality and it is easy to make internal calls between the three handsets.

ATA: My only experience is with the Grandstream HT702 ATA which appears to do what it is supposed to do, and is small and compact.

<http://www.ebay.co.uk/itm/Grandstream-HandyTone-702-HT702-2-Line-Analogue-SIP-VOIP-Adaptor-/122122482024>

If you have a small business with a few employees then you could be considering something like the Gigaset DX800A PRO used with Sipgate and B4RN's business services.

<https://www.gigasetpro.com/systems/systemsdetail/product/en-dx800a-pro/>

### Making Free Calls Over The Internet

One reason for choosing a PayG phone service is the proliferation of free alternatives to paid for phone calls. If you have a tablet or smartphone making voice or video calls worldwide using WhatsApp, WeChat or Skype is simplicity and for long regular chats to friends who also have either a smartphone or tablet it is a bit of a no-brainer, which may leave you needing to make quite few paid-for phone calls.

<https://www.whatsapp.com>

<http://www.wechat.com>

<https://www.skype.com/en/>

### Backing up your data

With a fast broadband connection, backing up your whole computer's contents online becomes more practicable. I've just signed up with Backblaze for \$5 a month. They give you 14 days free trial to test out the service. It took two or three days to upload the contents of my computer (they have a speed adjuster you can set to maximum) which amounts to 326,000mb. Subsequent incremental backups are quite fast. You can set it to continuously backup or backup on demand and it seems pretty easy to use. I could then download selected files as required. I haven't done a proper comparison of the different services available.

<https://www.backblaze.com>

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