



babyTEL Self Install Guide



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Welcome

Welcome and thank you for purchasing babyTEL service from Nucleus. The babyTEL service from Nucleus provides a fully-featured telephone service over your **existing high-speed internet** connection. The service offers a rich set of features including some that are not offered by your telephone company.

This guide will provide supplementary information to the babyBOX Installation Manual that you have either received or will be receiving after ordering your service with Nucleus. Specifically this guide will provide you with the proper configuration for your babyTEL service, on your existing Nucleus DSL High Speed Internet Service.

****Please note that 911 services are not currently available****

What You Need.

You need to have a high-speed Internet connection, which is also referred to as a broadband connection. This connection can either be of the **DSL** or Cable type.

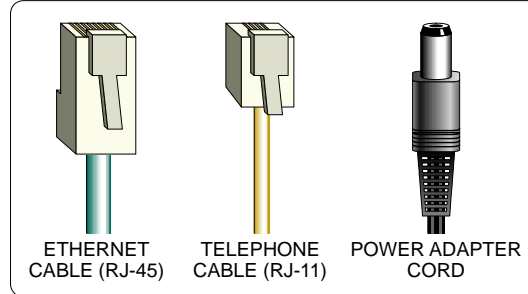
If you have such a connection then all you have to do is insert our babyBOX between your high-speed modem and your computer to enjoy great telephone features while still being able to surf the net.

A quick summary of what you need:

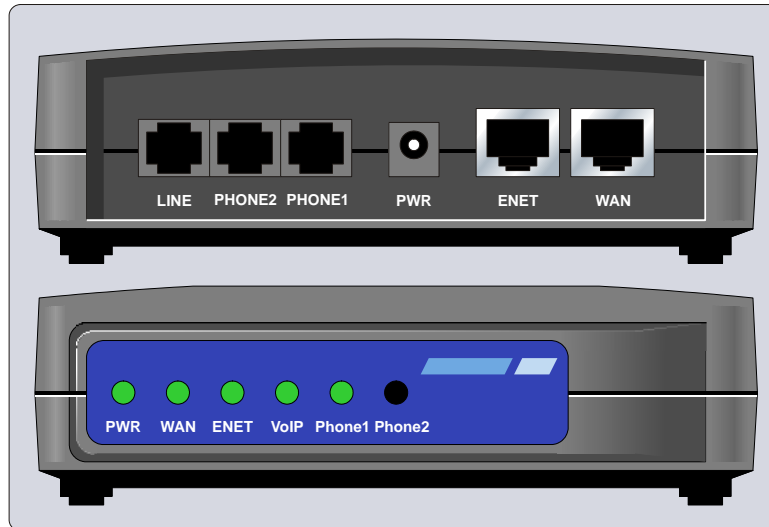
- | |
|---|
| <ol style="list-style-type: none">(1) High-speed Internet connection(2) DSL/Cable modem(3) Computer(4) Ordinary telephone set(5) Nucleus babyBOX(6) Network & Phone Cables |
|---|

Cables & babyBOX

The following is a crash course in the contents of the package that you received for your Nucleus babyTEL service:



Although similar in appearance, it is easy to tell the difference between the Ethernet cable and the telephone cable. The Ethernet connector (RJ-45) is the larger of the two.



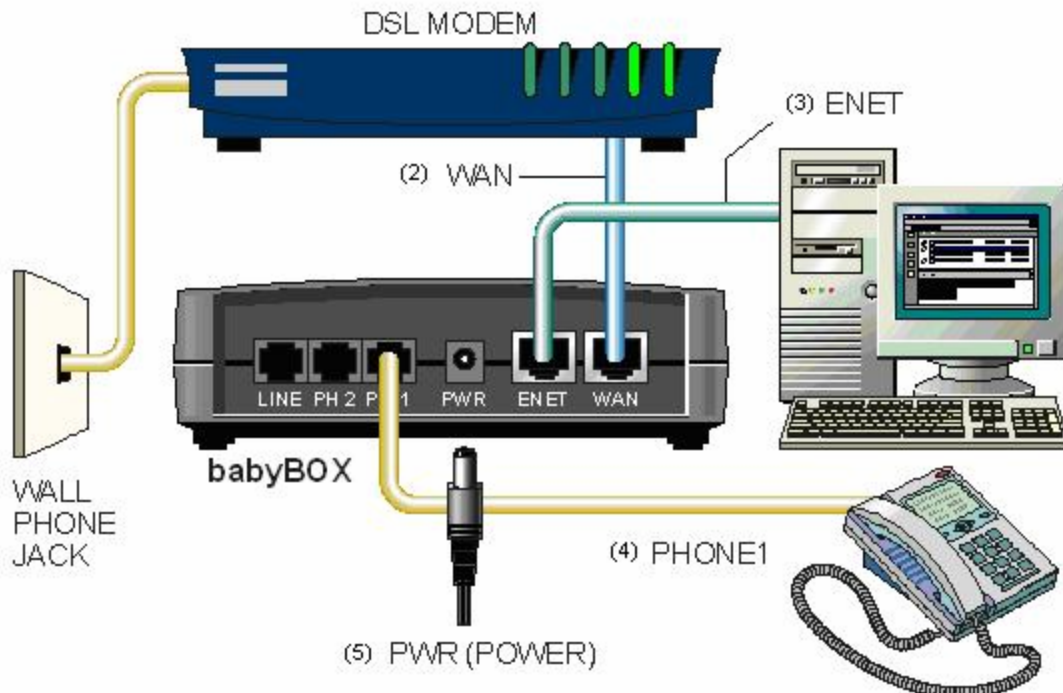
Back View (Jacks)	Front View (Lights On)
<p>PHONE1 (Telephone): Your telephone set connects to it.</p> <p>PWR (Power): The power cord from the AC adapter connects to it.</p> <p>ENET (Ethernet): Ethernet cable from the PC may connect to it, depending on your configuration.</p> <p>WAN (Wide Area Network): Ethernet cable from the Modem or Router connects to it, depending on your configuration.</p>	<p>PWR (Power): Indicates that the babyBOX is powered on.</p> <p>WAN (Wide Area Network): Indicates that a modem or router is connected to this jack.</p> <p>ENET (Ethernet): Indicates that a computer or another device is connected to this jack.</p> <p>VoIP (Voice over Internet Protocol): Indicates that the babyTEL telephone service is ready.</p> <p>Phone1 (Telephone): Indicates that the telephone set connected to this jack is in use.</p>

Note: Flashing lights can either mean that the babyBOX is rebooting, or the babyBOX is being upgraded automatically.

babyBOX Configuration (Basic Setup)

Since you already have a High Speed connection to the Internet, this means that you have everything you need. If you already have an existing Local Area Network (LAN) please refer to the Advanced Setup (babyBOX & Router) portion of this document.

- 1) Turn off the power to the DSL modem. Disconnect the ethernet cable that runs between the modem and the computer. Unpack the babyBOX and preserve the original packaging in case you need to return the babyBOX to Nucleus for whatever reason. Now proceed as shown below.

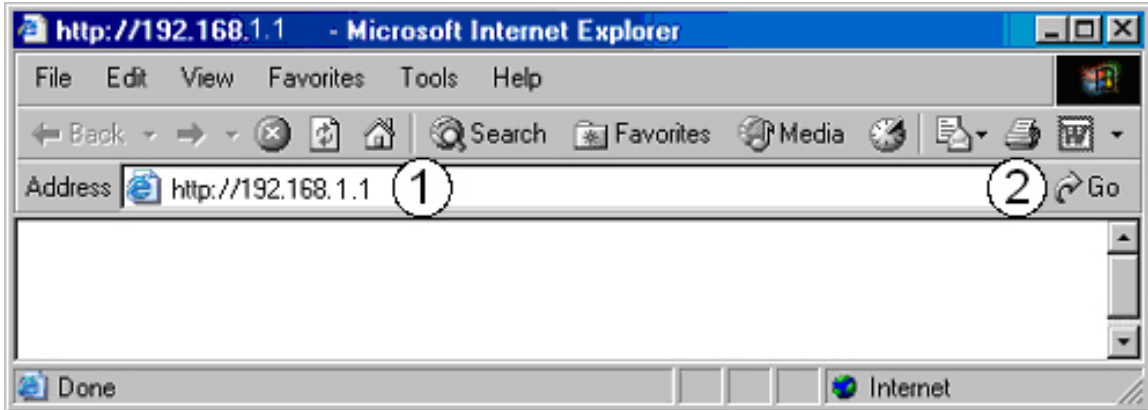


- 2) Connect an Ethernet cable from the Ethernet jack (10Base-T) of the DSL modem to the WAN jack of the babyBOX. ***Note*** If you have a Linksys ME3 modem be sure to use the yellow cable that came with the modem for this connection as it is a special cable (crossover cable) that is required for proper operation.
- 3) Connect a second Ethernet cable from the ENET jack of the babyBOX to the Ethernet jack (also called Network Jack) of the computer.
- 4) Connect your telephone set to the PHONE1 jack of the babyBOX.
- 5) Power up the DSL modem and wait a few moments for it to boot up. Plug the AC adapter that came with the babyBOX into a wall socket, or preferably, into a surge-protected power bar. With the DSL modem now powered and ready, connect the power cord from the babyBOX power adapter to the PWR socket of the babyBOX.

Wait at least 2 minutes for the babyBOX to boot and for the VoIP light to be solid.

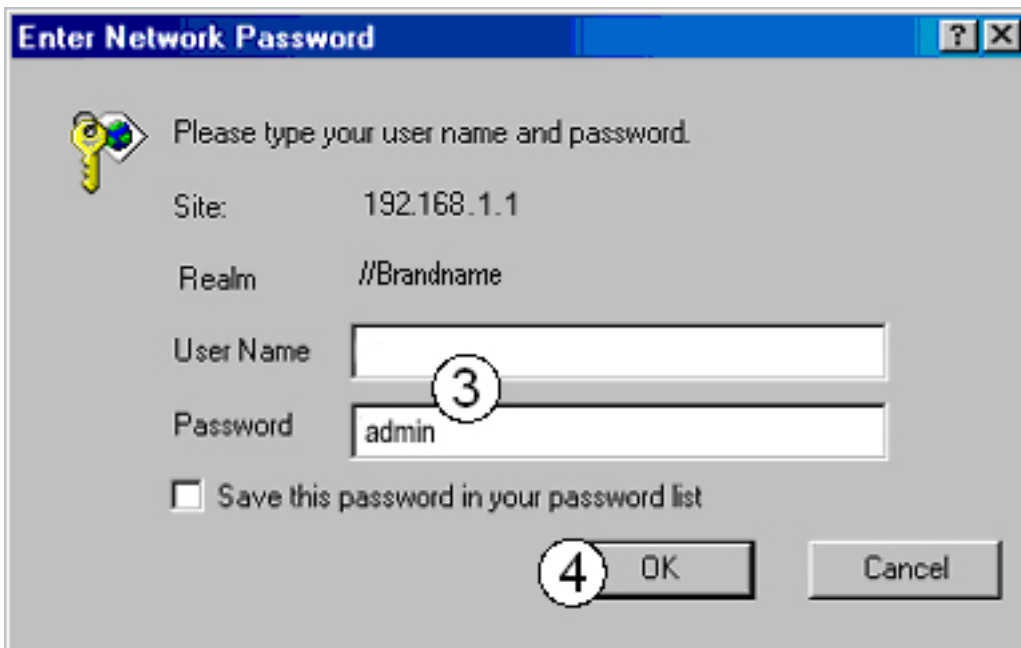
IP Address Configuration

Open your web browser (e.g. Internet Explorer).



- 1) Enter the IP address of the babyBOX. This is normally set to 192.168.1.1 at the factory.
- 2) Click on Go (or press Enter on your keyboard).

The following password window will appear:



- 3) The username field is left blank and the password field should be “admin” by default.
- 4) Click on OK.

The following home page will appear showing the Basic Setup page.

LINKSYS
A Division of Cisco Systems, Inc. Firmware Version: 1.28.03

Broadband Router with 2 Phone Ports **RT31P2**

Setup

Setup | Security | Voice | Applications & Gaming | Administration | Status

Basic Setup | DDNS | MAC Address Clone | Advanced Routing

Internet Setup

Internet Connection Type

Obtain an IP automatically

Optional Settings (required by some ISPs)

Host Name:

Domain Name:

MTU: Enable Disable Size:

Network Setup

Router IP

Local IP Address: . . .

Subnet Mask: . . .

Local DHCP Server: Enable Disable

Start IP Address:

Number of Address:

DHCP Address Range: 192.168.15.100 to 192.168.15.149

Client Lease Time: minutes (0 means one day)

DNS 1: . . .

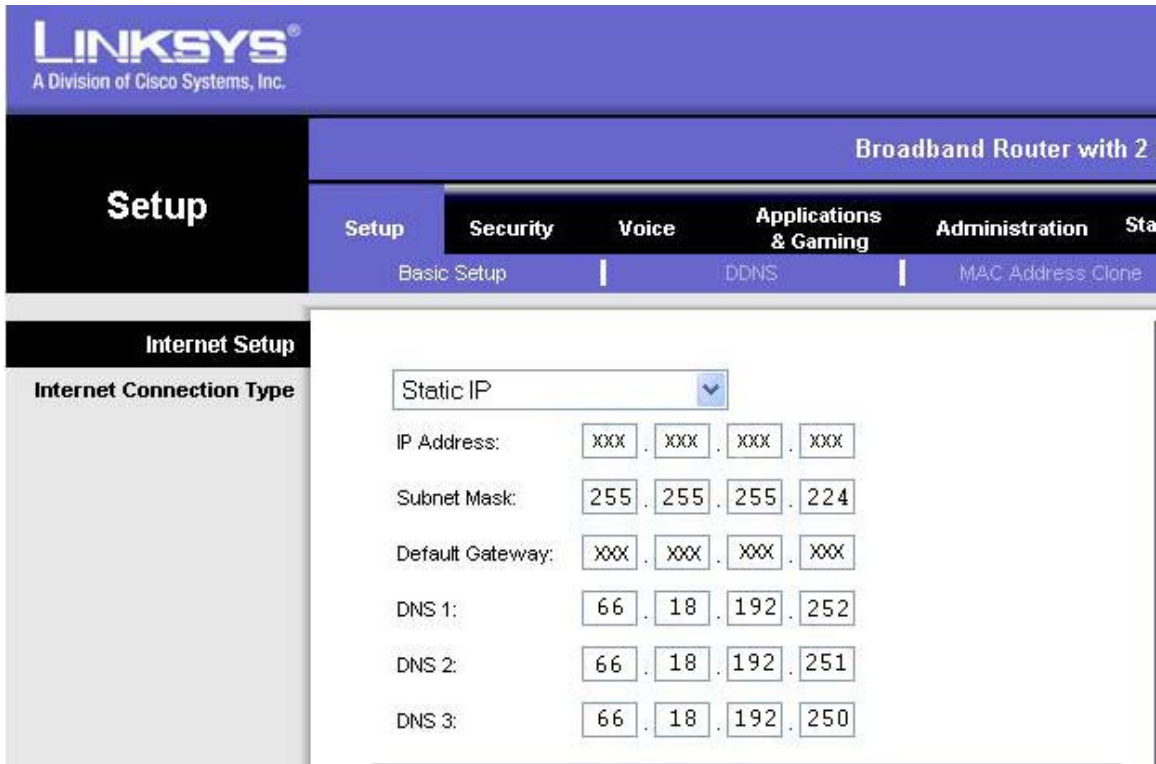
Basic Setup

The Basic Setup screen is where basic configuration is performed. Some ISPs (Internet Service Providers) will require that you enter the DNS information. These settings can be obtained from your ISP. After you have configured these settings, you should set a router password from the *Administration->Management* screen.

Completing the **Internet Setup** section is all that is required to set up for your specific ISP. Please look at the table below to configure the Router for your Internet connection.

[More...](#)

For static IP customers please select Static IP and enter the appropriate IP information into the required fields (xxx represents the your IP and Gateway address)



LINKSYS
A Division of Cisco Systems, Inc.

Setup

Broadband Router with 2

Setup | Security | Voice | Applications & Gaming | Administration | Status

Basic Setup | DDNS | MAC Address Clone

Internet Setup

Internet Connection Type

Static IP

IP Address: xxx . xxx . xxx . xxx

Subnet Mask: 255 . 255 . 255 . 224

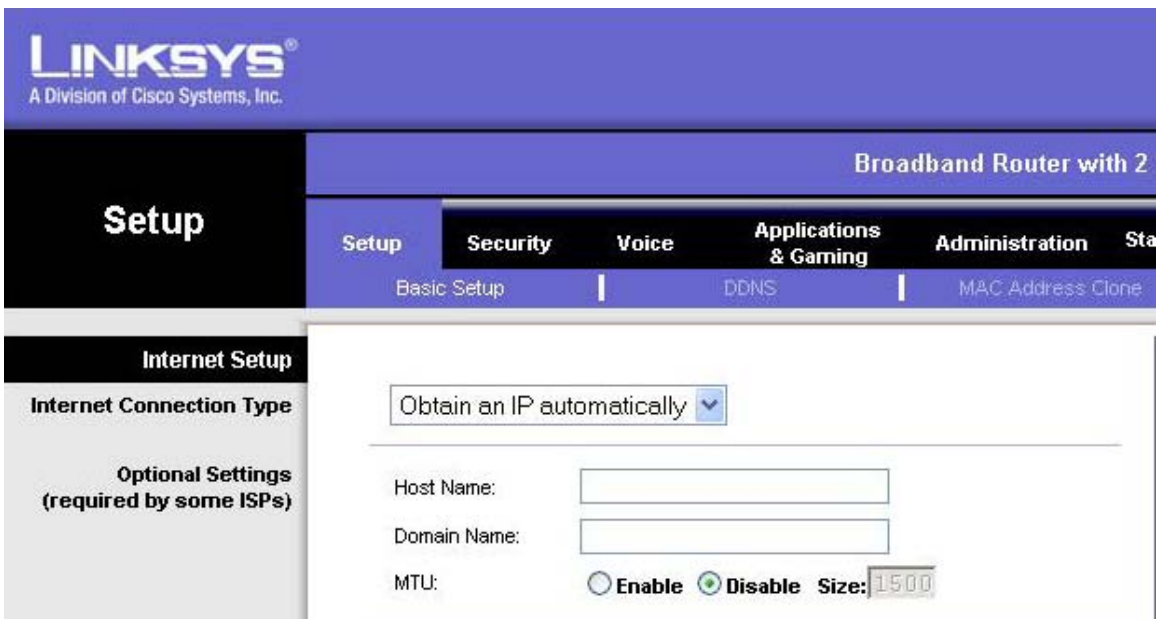
Default Gateway: xxx . xxx . xxx . xxx

DNS 1: 66 . 18 . 192 . 252

DNS 2: 66 . 18 . 192 . 251

DNS 3: 66 . 18 . 192 . 250

For Dynamic IP customers please select Obtain IP automatically or Automatic Configuration-DHCP and enter in your DHCP ID in the Hostname field (be sure to include "NIS-" (without quotes) in capital letters).



LINKSYS
A Division of Cisco Systems, Inc.

Setup

Broadband Router with 2

Setup | Security | Voice | Applications & Gaming | Administration | Status

Basic Setup | DDNS | MAC Address Clone

Internet Setup

Internet Connection Type

Obtain an IP automatically

Optional Settings (required by some ISPs)

Host Name:

Domain Name:

MTU: Enable Disable Size: 1500

Scroll to the bottom of the page and enter in your DNS servers:

**Network Address
Server Settings (DHCP)**

Local DHCP Server: **Enable** **Disable**

Start IP Address: **192.168.15.**

Number of
Address:

DHCP Address
Range: 192.168.15.100 to 192.168.15.149

Client Lease Time: minutes (0 means one day)

DNS 1: . . .

DNS 2: . . .

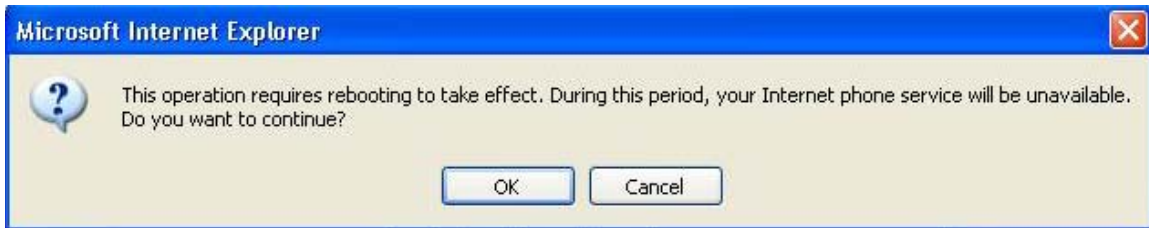
DNS 3: . . .

WINS: . . .

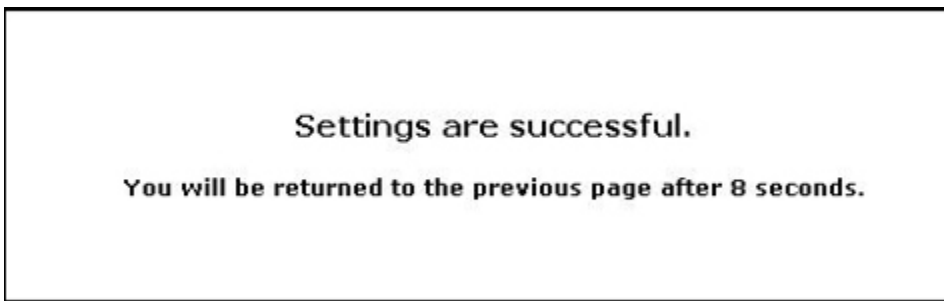
5) Click Save Settings at the bottom of the screen.



6) Click on OK.



7) You will see a screen like the following. Don't close the browser window until you are returned to the main page.

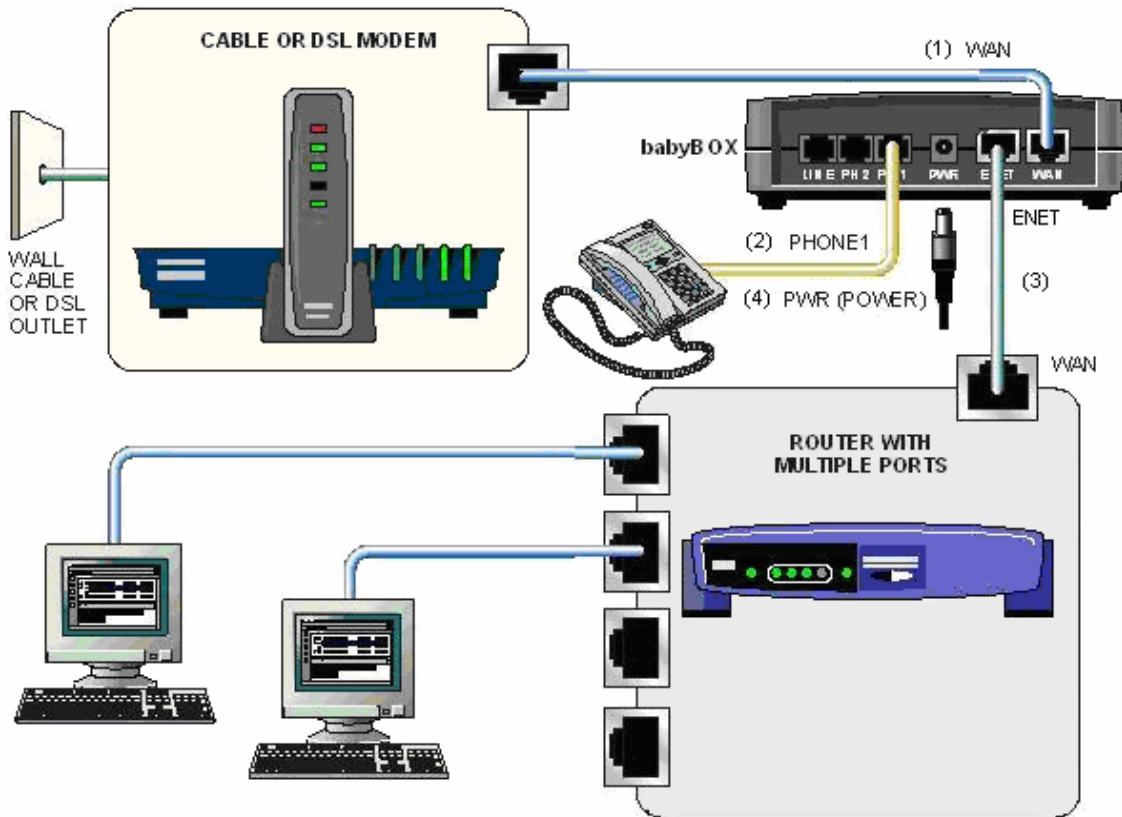


Wait at least 2 minutes for the babyBOX to reboot and for the VoIP light to be solid, you are ready to use the Nucleus babyTEL service or surf the Internet. When you pick up the telephone receiver you should hear a dial tone. Dial a friend to confirm that it is working..

Advanced Setup (babyBOX & Router)

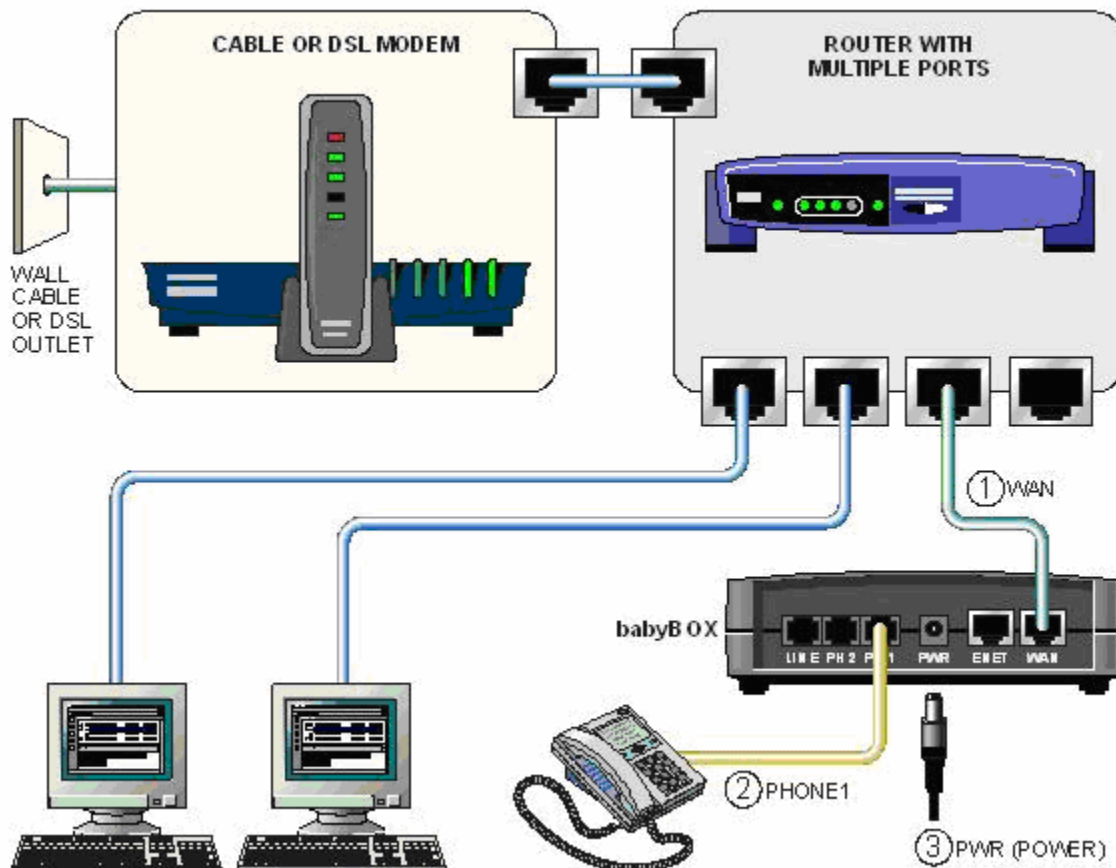
This section will describe the two possible scenarios of adding a babyBOX to an existing Local Area Network (LAN). Please note option 1 is the recommended setup because babyBOX voice traffic gets priority over all other internet traffic, meaning that the quality of your telephone call will not be interrupted if you are using your internet connection for other purposes. Option 2 is an alternative scenario that is only recommended as a last resort because there is no Quality of Service filtering (there is no priority given to babyBOX traffic) and voice quality may suffer.

Option 1



- 1) Connect an Ethernet cable from the DSL or cable modem to the WAN jack of the babyBOX.
- 2) Connect your telephone set to the PHONE1 jack of the babyBOX.
- 3) Connect an Ethernet cable from the ENET port on the babyBOX to the WAN (UPLINK) port on the router
- 4) Plug the AC adapter that came with the babyBOX into a wall socket, or preferably, into a surge-protected power bar. Connect the power cord from the adapter to the PWR socket of the babyBOX.
- 5) Please refer back to "IP Address Configuration" for details on configuring the babyBOX.

Option 2



- 1) Connect an Ethernet cable from a spare Ethernet jack on the router to the WAN jack of the babyBOX.
- 2) Connect your telephone set to the PHONE1 jack of the babyBOX.
- 3) Plug the AC adapter that came with the babyBOX into a wall socket, or preferably, into a surge-protected power bar. Connect the power cord from the adapter to the PWR socket of the babyBOX.
- 4) Cycle the power on your router (unplug the power connector, wait 5 seconds and plug it back in).
- 5) Depending on the configuration of your network the babyBOX will now obtain an IP address, this will be needed to manage the device. Please refer back to "IP Address Configuration" for details on configuring the babyBOX.