KC Bonded DSL (UK)

NO LONGER AVAILABLE FOR NEW SUPPLY

Service Description

KC Bonded DSL (UK) is a nationally available product that bonds up to 4 lines together, creating a single virtual broadband connection to the internet for your business at up-to 4 times quicker than a single broadband line. Where available, multiple ADSL2+ products are used outside KC's original licenced area to deliver this service.

Benefits

It's the ideal solution if you are looking for a cost effective way to increase your internet speed and are unable to benefit from other solutions such as Fibre Broadband.

- Our preconfigured routers combine multiple broadband lines together
- The bandwidth is combined - creating one high speed connection. Only a tiny part of your bandwidth is lost during this process.
- This not only means faster speeds for your business but also the simplicity of managing your connection as if it were a single line.
- As Bonded DSL uses more than one line, it is more reliable than standard broadband, giving your business peace of mind. Should one router or line between you and the exchange fail, your connection will continue using the remaining lines.

Connection & Rental Charges

The connection charge is payable below which covers our costs of enabling broadband on the telephone line and router hardware costs per line. It does not cover the cost of any telephone line connection or rental that is a pre-requisite of taking the bonded DSL service. Prior to ordering Bonded DSL, you will need to have as many BT telephone lines as you want to bond together, installed into your business at the same physical location.

KC Bonded DSL UK	2 Lines		3 Lines		4 Lines	
	Exc. VAT	Inc. VAT	Exc. VAT	Inc. VAT	Exc. VAT	Inc. VAT
Connection Charge	£100.00	£120.00	£150.00	£180.00	£200.00	£240.00
Monthly Rental – Unlimited Usage	£120.00	£144.00	£155.00	£186.00	£190.00	£228.00

Requirements

Bonded DSL can be ordered and installed in 15 days - compared to the usual lead time of up to 72 days for an Internet Leased Line.

Before ordering, you will need to have the BT telephone lines installed into your business at the same physical location, as all the routers need to be connected together. You will need an Ethernet switch and as many electrical sockets or extension sockets available as bonded lines as the solution uses one router per line.

For optimum Bonded DSL performance, the following conditions must be met:

- All Bonded DSL routers must be able to communicate with each other on your LAN
- All devices on your LAN must be able to communicate with any of the Bonded DSL routers

- All devices on the LAN should use the VRRP address as the default gateway. This should happen automatically but devices with manually configured IP addresses should be checked to make sure they are using the VRRP gateway and not an individual router.

Technical Router Information

The Bonded DSL service uses normal ADSL routers with custom firmware loaded onto them. Your routers have been preconfigured with your connection details by our Technical Support Team, so all you need to do is plug them in and perform a few basic checks.

The Routers IP Address is printed on the sticker on the base of the unit. The login details to access the Routers are:

Username: admin

Password: Your Bonded DSL Password

Please make sure that you use the stands provided for the routers and please do not stack the routers on top of each other as they get warm and this will degrade the life of the unit.

The routers should be connected to the phone line like any normal ADSL router, using a micro-filter and avoiding the use of extensions or un-necessarily long cables.

The Bonded DSL solution can be physically connected in a number of different ways, to suit your installation requirements. In short, you need to plug an Ethernet cable from each of the Routers into a switch, along with the rest of your network.

About VRRP and DHCP

If you have setup ADSL before, you will know that computers on your network use a 'default gateway' address to route traffic to the internet. The default gateway is the LAN address of your router and is normally 192.168.0.1 (or similar).

With Bonded DSL, there can be up to 4 routers each with their own LAN address. In order for your LAN devices to route traffic properly, the group of routers act as one big 'Virtual Router' and the default gateway should be the LAN address of the Virtual Router, normally 192.168.0.250.

If your LAN devices are configured for DHCP (automatic IP setup), they will automatically pick up the settings. If you have devices configured manually, you will need to make sure they are using the Virtual Router as the default gateway and not an individual router in the group.

How to change your DHCP range

To change your DHCP Range, simply log into each of the Routers, and click on "Network configuration" on the menu. From here, you can alter the DHCP range.

Note: You must update the range on each of the routers for the change to take full effect

Recommended Network Configuration

The recommended configuration is for all bonded DSL routers to be connected to an Ethernet switch (use the yellow Ethernet cables provided). Other devices on your LAN should be connected to this switch and make sure that you have enough switch ports for all your devices!
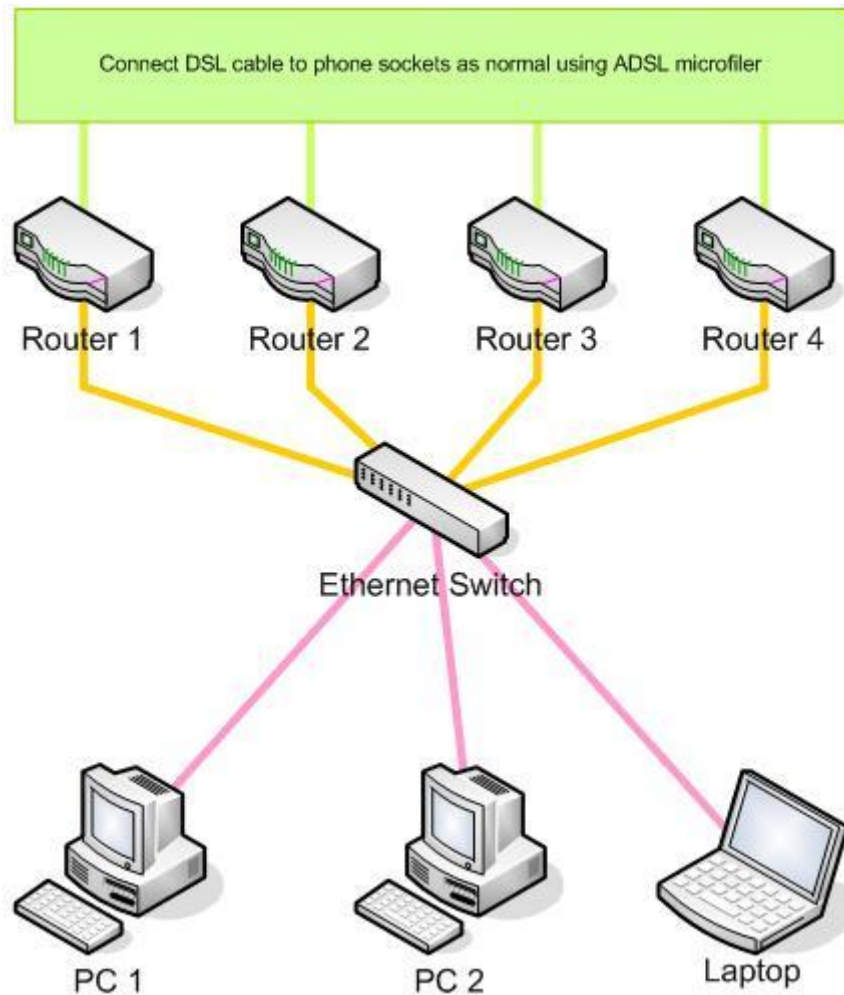
Routers 1 - 4 are able to communicate with each other via the switch. This allows the bonded DSL software to make use of all routers and route traffic according to the performance of each line.

PCs 1 & 2 and the laptop are able to communicate to all routers via the switch. If any router, cable, or DSL line should fail then the system will continue to operate with the remaining lines. No manual intervention is necessary.

Alternative configuration (not recommended except in emergency)

If you do not have access to an Ethernet switch, devices on your LAN can be directly connected to the bonded DSL routers, as long as all the routers can also communicate to each other.

Connect the Bonded DSL routers in a daisy-chain using the yellow Ethernet cables provided. You can then connect your LAN devices to any remaining ports on the routers.

This is not optimal as manual intervention may be required in the event of a hardware failure, depending on how your LAN devices are connected.
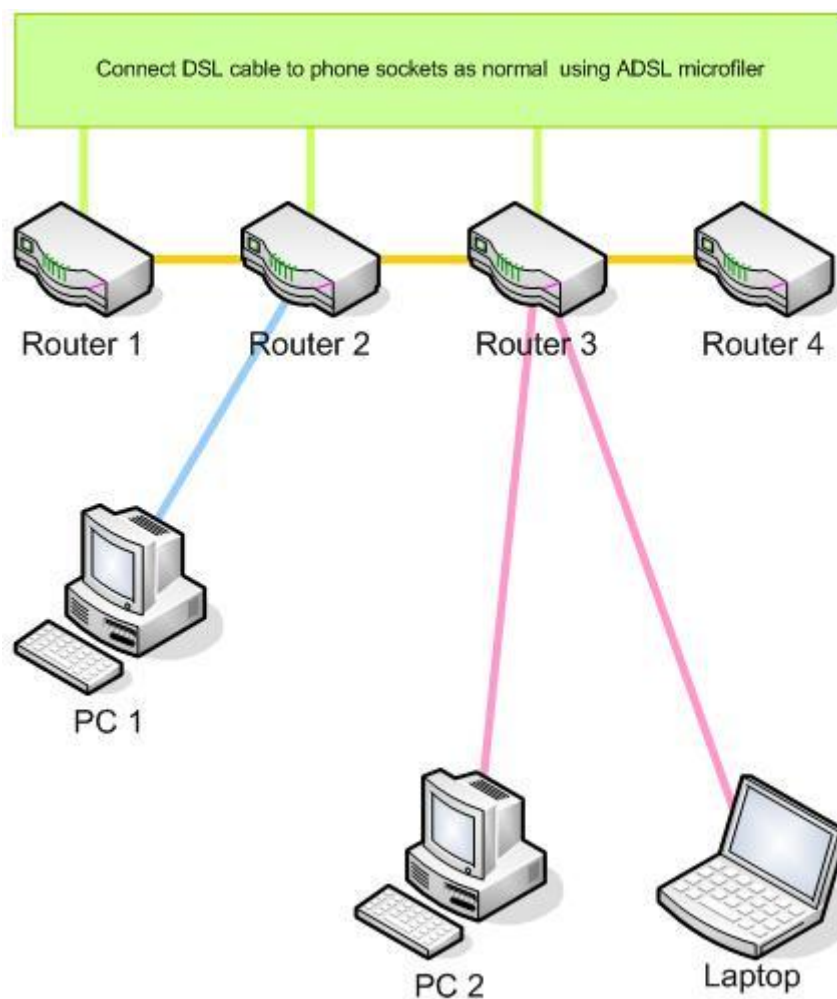
While everything is working, this will still give you all the benefits of the bonded setup with the aggregated bandwidth of all lines and the service will continue to operate with the remaining lines, if there is a failure on any line.

In the example above, if Router 2 or Router 3 hardware or LAN connections should fail then the devices directly connected to them will lose connection to the internet.

If any of the daisy chain links between the routers are broken then the bonded DSL software will not be able to use all the lines effectively, as isolated routers will not be able to add their bandwidth to the group.

Adding wireless to your network

You can easily add Wireless to your network by simply plugging a Wireless access Point or Wireless Router into your switch. In most situations you can simply leave the device to obtain an IP address from the Bonded service automatically, however No-NAT setups would require the device to have its own Public IP Address.

Configuring for No-Nat Setups

Bonded DSL is set-up by default as a NAT configuration. You can easily configure your Routers for No-Nat setups. But in order for you to use No-NAT we need to make a minor change in our network too. Once you have made the changes in your routers, please contact us and ask us to remove NAT from our end.

To Change to No-NAT, you will need to log into one of your Netgear Routers. Once logged in, click on "Configuration" on the menu. Next, change the Virtual Router Address to the First usable IP in your static range. Next, update your Virtual Router Netmask to your public Subnet Mask. Finally, click save. You Need to make this change on All of your Routers.

Adding a Hardware Firewall

Some customers may wish to add a Hardware Firewall to their Network.

There are several ways that you could implement a Hardware Firewall into the solution. If your hardware Firewall includes NAT and DHCP, then the best solution would be to operate your Bonded service in a No-NAT setup with DHCP disabled. Once done, you can simply assign a Public IP address to your Firewall, and allow the rest of your Network to connect via your Firewall - all from the same Unmanaged Switch.