

Broadband Glossary

Activation

Activation is the BT process by which your existing phone line becomes enabled to receive data and voice calls simultaneously.

This is one of the many advantages of broadband because your phone line is shared, but without the inconvenience of permanently engaged phone lines. It simply means that you can be online and your phone line is still available for incoming and outgoing calls.

Activation takes place at your local phone exchange, for which BT makes a charge. This is a once only cost.

Bandwidth

Bandwidth is the information carrying capacity of your broadband connection.

- For the Home500 service this means broadband is 10 times faster than the best of other modems.
- For the Biz500 service this means broadband is 10 times faster than the best of other modems.
- For the Biz1000 service this means broadband is 20 times faster than the best of other modems.
- For the Biz2000 service this means broadband is 40 times faster than the best of other modems.

Broadband

Broadband is generally used to describe a high-speed Internet or data connection that is charged at a flat rate fee. Broadband presents you with major opportunities to manage your business cost-effectively. Not only can you realise the benefits derived from improved access to the Internet but you can also achieve significant cost-savings.

Why move to Broadband?

Broadband is suitable for most businesses with the following requirements:

- You have increased your time online
- You need a high speed connection
- You require a cost-effective solution

How Broadband works

LCBroadband works by connecting your computer to the telephone wall socket via an ADSL modem and an adapter (microfilter). The telephone line must be a BT line.

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Broadband packages

Link Connect offer a range of broadband services to suit the varied requirements of home users and business users of all sizes.

Home500

- For 1 computer
- Contention ratio 50:1
- 512kbs download
- 256k upload

Biz1000

- For up to 12 computers
- Contention ratio 20:1
- 1024kbs download
- 256k upload

Biz500USB

- For 1 computer
- Contention ratio 50:1
- 512kbs download
- 256k upload

Biz2000

- For up to 25 computers
- Contention ratio 20:1
- 2048kbs download
- 256k upload

Biz500

- For up to 5 computers
- Contention ratio 20:1
- 512kbs download
- 256k upload

Contention ratio

Since bandwidth is not infinite across BT's network, users have to share it. This means your data path between you and your ISP is shared with other broadband connections. The contention ratio is the amount of other users your connection **could** be shared with. It is always represented as the minimum guaranteed contention. For example if the contention ratio is 20:1, the maximum number of users sharing the bandwidth will be 20.

Domain Name

A domain name on the Internet is your own individual address or means of identification, like your phone number or postal address. It is unique to you and cannot be used by anyone else (for the period you have registered the domain name). A typical domain name would be info@mycompany.co.uk

A domain name can be used to host a website and/or email.

Each domain name has a unique identification number called an IP address. The email system on the Internet uses the IP address to deliver email to and from a domain name.

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Firewall security

Our appliance product line provides comprehensive, scalable security solutions, encompassing broadband telecommuters to large corporate offices, e-business sites, and carrier networks. The full-featured firewall uses technology based on stateful inspection, securing against intruders and Denial of Service (DoS) attacks. All appliances provide:

Integrated solution with security-optimised hardware, operating system and firewall, which provides higher level of security than patched together software-based solutions:

- Robust attack prevention, independently configurable on every interface, including SYN attack, ICMP flood, and Port Scan
- Network Address Translation (NAT), Port Address Translation (PAT), route, or transparent modes of operation
- The proprietary OS software is an ICSA certified stateful inspection firewall

Firewall 24*7 support

The Firewall support service gives you access to highly trained, certified support engineers to provide troubleshooting and integration assistance. This is a 24*7*365 service available via phone and/or email.

Hosting

Domain names

Link Connect can host your email and/or website on their Domain Name Server (DNS). Link Connect is an ISP, offering a complete portfolio of hosting solutions for business and home users. As one of the UK's leading providers of web hosting services, our superior network, world class support, and innovative service packages enable us to offer our clients first class quality and service.

Email

As part of our hosting service we will also provide up to 10 POP3 email accounts for your use.

HQ mail

HQ mail is email software that enables you to view your mailbox from anywhere with an Internet connection. From a safety point of view, your email is held on a mail server so it can be retrieved should your system crash or you accidentally delete mail.

HQ mail allows access to a central filing system of emails. Any individual can store their emails in public folders, which allows anyone on the network to view them. This only applies to emails you have saved in these folders, it does not give access to your inbox or emails that you have saved in private folders.

Installation

A range of installation options are available for LCBroadband.

Self-install

Broadband is simple and easy to install yourself. You will need a suitable router or modem, which we can supply. Full installation instructions are sent to you and we have a support line should you encounter any difficulty. (Please note that we can only support the installation of modems purchased from us).

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Self-install is a quick and cost-effective way of getting started with broadband, saving the cost of an engineer visit.

Engineer install

Alternatively a Link Connect engineer will set up your broadband for you. Using a modem or router supplied by Link Connect, the engineer will attach the modem to your phone socket and computer and test that the connection is working satisfactorily.

Broadband connected to network

A Link Connect engineer can install broadband on your network. This involves configuring the router to the range of IP addresses used by your network, installing the modem on the server and testing that the connection is working satisfactorily on each machine on the network.

IP Addresses

To differentiate computers, each computer connected to the Internet is assigned at least one unique IP address (Internet Protocol address). An IP address is a unique identifier for a connection on an IP network.

IP addresses are used to deliver packets of data across a network and have what is termed end-to-end significance. This means that the source and destination IP address remains constant as the packet traverses a network. Each time a packet travels through a router, the router will reference it's routing table to see if it can match the network number of the destination IP address with an entry in its routing table. If a match is found, the packet is forwarded to the next hop router for the destination network in question. There are 2 types of IP addresses - Dynamic and Static.

Static IP addresses (No NAT)

A static IP address is an address that doesn't change every time you log on to the Internet. A static IP address is essential for the following:

- **SMTP mail.** The mail server needs the same IP address to be able to collect and deliver mail.
- **Virtual Private Network.** In order to gain remote access to your network, a static IP address is needed.
- **Remote communication applications.** Software such as PC Anywhere, which enables communication between machines requires static IP addresses in order to identify the machine they wish to communicate with.

Static IP addresses are the most convenient because as the number stays the same with no re-configuration or resetting of hardware required.

All LCBroadband multi-user packages are supplied with a minimum of 1 static IP address.

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Dynamic IP addresses (NAT)

Originally all IP addresses were static, but with the growth of the Internet it soon became clear that there would not be enough numbers available for everyone to have a static IP address.

A dynamic IP address changes every time you connect to the Internet. Your ISP will have a range of dynamic IP addresses available and you will be allocated any one of these at any time.

A dynamic IP address uses a different type of user recognition and is typically used for POP3 mail and for home or light users of the Internet.

IP addresses can be public or private. A private IP address is used internally on a network, a printer for example. A public IP address is external, such as a firewall or mail server.

Microfilters

The line for which you are ordering LCBroadband will need one microfilter for each telephone/extension socket that has equipment plugged into it (telephone/fax machine/computer). This easy-to-install device splits your existing sockets into two channels and prevents any interference from the ADSL connection. Without them, you may experience noise on the line when you make a voice call.

Minimum Mac Specification

For Home500 and Biz500USB products (single users):

PowerPC 601 or equivalent 200Mhz
32MB System memory (RAM)
2-speed CD-ROM player
Video driver/display 800 x 600, 256 colours
100MB free on hard drive
Mac OS 8.6 up to OS 9.0
An available USB port


In addition to the above, business products (multi-user):
10baseT Network Adaptor + RJ45 connector

Minimum PC Specification

For Home500 and Biz500USB products (single users):

Pentium 200Mhz
32MB RAM
16-bit sound card
4-speed CD-ROM player
Video card/display 800 x 600, 256 colours
150MB free on hard drive
Windows 98, 98SE, ME, 2000 Professional or XP
An available USB port

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In addition to the above, business products (multi-user) require 10baseT Network Adaptor + RJ45 connector.

Note: Business (multi-user) products are also compatible with Windows 95, NT4 Workstation SP3. USB products are not compatible with dual processors.

For Biz 1000 and Biz 2000

Windows 95, 98, ME, 2000 Professional, NT4 Workstation or XP

180Mb free on hard drive

10baseT Network Adapter with RJ45 connector

CD-ROM drive

16-bit sound card

Video card and monitor capable of 800 X 600 resolution, with 256 colours

Modem

Your computer and ADSL modem should be situated not more than 3m from a telephone wall socket, as this is the typical length of the connecting cable. The modem comes with a CD-ROM containing the software you need to load onto your computer to allow operation of the modem. Please note that any existing analogue modem in your computer will not work with LCBroadband.

The modem may be purchased from us or from other suppliers. You may also be able to use your existing ADSL modem if you already own one.

Multi-pop/v-pop email

Multi-pop email delivers all mail on a domain name into one mailbox (for example mail@yourcompany.co.uk). The mail client software then delivers the mail to the individual recipients on the network. This enables unlimited users of the mail system, but is not as efficient or professional as SMTP. The one mailbox can fill up very quickly and therefore good housekeeping is required.

Network Management


Policy Based Networking solutions that improve the performance and ensure the quality of mission critical and time-sensitive applications running on IP networks. Our range of products allow network managers to define relationships between organisational needs and network infrastructure in order to achieve maximum efficiency from network and server resources. Network managers can track, account and bill for network usage according to the same policies that define and enforce network bandwidth allocation. Advanced tools provide capabilities for reporting on account activity, analysing specific application-level traffic flows as well as long-range traffic usage patterns.

POP3 email

Post Office Protocol. A system by which a mail server on the Internet lets you pick up your mail and download it onto your computer. A POP server is the computer from which you pick up your mail.

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POP mail services store your incoming messages on a server until you are ready to collect them. You download them using an email software package, Outlook Express, for instance. Once you download the messages, they are deleted from the server and stored on your PC. POP3 collects your email, where SMTP sends it to you.

With POP3 mail, you can create and read messages offline, and connect just to send messages and download your new mail. An almost unlimited number of messages can be kept (as long as you keep downloading them regularly) since they are stored on your hard disk. This also means that you can re-read old messages without connecting to the Internet.

POP3 mail typically uses a dynamic IP address. Whenever someone logs on for POP3 mail the IP address from which the connection was made becomes available to send and receive email for a limited amount of time.

Router

You must have a router for all multi-user installations. The router should be situated not more than 3m from a telephone wall socket, as this is the typical length of the connecting cable. The router comes with a CD-ROM containing the software you need to load onto your computer/server/hub to allow operation of the router.

The router may be purchased from us or from other suppliers. You may also be able to use your existing ADSL router if you already own one.

Security

If the Internet is now critical to your everyday business operations, then our tailored solutions are for you. Our tailored solutions portfolio offers the very best in managed IP services and solutions including high capacity connectivity, dedicated server hosting, e-mail outsourcing, security, IP integration, project management and consulting. With all you would expect of a leading IP services provider, we deliver first-class solutions that not only meet your business needs today, but have been designed with the flexibility to meet them for many more years to come.


As an established provider of IP services, we have a wealth of security technology experience and the resources needed to offer an unsurpassable range of security solutions. To ensure your business safety, we will work with you to help assess the risks and threats, and to minimise intrusion.

SMTP email

SMTP (simple mail transfer protocol) is a protocol for the process of exchanging email between mail servers on the Internet. The objective SMTP is to transfer mail reliably and efficiently.

An SMTP mail system allows unlimited email accounts on a given domain name, making it a cost effective solution for companies requiring large numbers of email addresses.

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With SMTP, incoming email to any address on the domain name (whatever@yourcompany.co.uk) is delivered centrally to a server. Your mail client software (eg Microsoft Exchange) then sorts the mail into the individual post boxes for each person. The email accounts on SMTP mail are managed by the company's network administrator enabling accounts to be added or removed easily as employees join or leave the company.

Sockets

If your BT line extends to other sockets in your house, you will need to plug a microfilter into each socket/extension, especially if you have other telephones, fax machines, etc. on that line.

Virus Protection

Virus protection is vital for business continuity. With an estimated 85% of current viruses propagated by email, we are helping to tackle the virus problem by providing mail virus protection service using award winning scanning technology.

You may already have protection at your desktop or server level, but with our email virus security solution, you have the added advantage that emails are caught at the 'Gateway' level before they get anywhere near your organisation or that of your email recipients.

Managed E-mail Anti-virus Service takes away the headache of protecting your company's emails against viruses, that pass to and from the internet through our mail servers. This means a reduction in time and money spent on this aspect of in-house protection.

VPN (Virtual Private Networking)

The VPN facility enables you to connect your local area network (LAN) or to another private network, via the public Internet, or for remote teleworkers to access your LAN securely via the Internet. A secure 'tunnel' is established and as you are making use of an existing Internet connection, there are no long distance phone charges or huge leased line costs typical of LAN links. Our solutions supports industry standard PPTP and IPSec VPN protocols, with DES/3DES encryption to link to Teleworkers or remote offices.



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