

2009

Link-Connect

WHITE PAPER

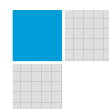
Answer in 9 Questions

Is Bonded ADSL right for your business?

Version 1.0.0 Release 5.0

www.link-connect.com
advice@link-connect.com
+44 (0)800 0354 777

Link-Connect Services Ltd, Moor Park House ,
Farnham, Surrey, GU10 1QP



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INTRODUCTION

Bonded ADSL is dismissed by many as being unsuitable for business. This is to ignore the greatest step change in connectivity available to business organisations in a generation. The large download speeds available perfectly matches the way business works today. Bonded ADSL is not for everyone and the questions that need to be answered and are covered in this document are company size, location and application demands. This whitepaper is designed to identify if Bonded ADSL could be right for your organization.

To find out more, simply call us on 0800 0354 777 and we will happily discuss any queries you may have.

1. How to use this document

Read the introductory text for each section and then answer the questions in relation to your business. To the side of each question you will find a quick pointer to advise how the answer you are providing is moving towards or away from Bonded ADSL.

2. Location Factors

If you are located at a city centre location such as London, Birmingham, Manchester or Leeds you will have lots of choice and great price competition ensuring leased lines cost less (about half the cost) than leased line prices in smaller towns and cities, suburbia or rural areas.

How far are you from the nearest telephone exchange? If you are located less than 6km from the nearest telephone exchange then DSL technologies such as ADSL, SDSL and bonded variants are possible. Check your distance from your local exchange at <http://www.kitz.co.uk/adsl/adslchecker.php>

If you have multiple sites it is important to look at the whole picture for all locations as a fast cheap connection at head office and atrocious connectivity at remote offices will negatively impact the business.

Q No.	Question	Head Office	Office 2	Office 3	Best available options
	Location				
Q1	City Centre - Lots of Fibre & Suppliers				Probably Leased Line unless massive bandwidth is needed.
Q2	Limited Fibre				ADSL solution / Hybrid solution subject to Q3
Q3	Distance from telephone exchange less than 6km?				If yes ADSL / SDSL solutions

1.1 Your users needs

A common question is how much bandwidth is enough? Whilst the trend of bandwidth demand is always upwards there are typical economic break points where people move from a low cost single ADSL line to either bonded ADSL or leased lines.

A standard user is an organisation that uses the internet for normal email and browsing customers and supplier websites.

A heavy user is an organisation that is using the internet connection in a way that is critical for the business for example designers and printers who need to send and receive large files, IT companies or companies using applications such as online customer relationship management (CRM) all day every day.

Employees	Standard Users	Heavy User
1 to 19	Single ADSL	Bonded ADSL or Leased Line
20 - 500+	Bonded ADSL or Leased Line	

1.2 Location Summary

If all locations are major city centres with lots of fibre then leased line options should be very price competitive with Bonded ADSL / Bonded SDSL solutions. The following is not a full overview of the products available but is designed to show the vast differences in speeds, reliability and pricing.

	Business ADSL	Bonded ADSL		Bonded SDSL	Leased Line
		2 ADSL Lines	5 ADSL Lines	2 SDSL Lines	2MB Leased Line
Max Download speed*	5Mbps	24 Mbps	60 Mbps	4 Mbps	2 Mbps
Max Upload speed*	750 Kbps	1.5 Mbps	4.25 Mbps	4 Mbps	2 Mbps
Lines	1	2	5	2	1
Monthly Internet Bandwidth Allowance	100Gb	200Gb	350Gb	200Gb	100Gb
Automatic failover	No	Yes	Yes	Yes	No
Public IP address range	Fixed (single)	Fixed (multiple)	Fixed (multiple)	Fixed (multiple)	Fixed (multiple)
Surveillance	Optional	24/7	24/7	24/7	24/7
Load balancing across lines	No	Yes	Yes	Yes	No
Service Level Agreement	None	99.9% monthly	99.9% monthly	99.9% monthly	99.7% - 99.9% monthly
Monthly Prices from	£50 pm	£199 pm	£399 pm	£600 pm	£300 – 600 pm

*Speeds shown are the maximum achievable, exact speeds are determined by your distance from the telephone exchange.

2 Application Factors

What applications are you running over your connection?

2.1 Internet Applications

- **Single and Multi Site Organisations**

Internet based applications will run over all connections, subject to Internet connectivity; however the speed the applications will run at is dependent upon how fast the download speed of the connection is. If you are using a lot of Internet bandwidth check the monthly download allowance available on any connection you are evaluating.

- **Example Internet Applications**

Websites, Company Intranets, Webmail

Skype, Webex

Collaboration tools: Sharepoint, Google Apps, SalesForce

Social Media: Facebook, Twitter, Instant Messaging (IM)

If you find times when you cannot get work done because the connection is frustratingly slow, you need to ensure the bandwidth is not being abused with music / films or radio downloads. If you are satisfied the Internet connection is not being abused more bandwidth will allow you to achieve more in less time.

2.2 Traditional – Client Server Applications

Client server applications are typically run by Multi Site Organisations and will run over all physical connections, subject to a private network being in place. However some applications are sensitive to time delays which may preclude VPN technologies.

- **Key delay sensitive applications.**

Citrix and Terminal services are well known to be time sensitive. Lesser known time sensitive applications are things like Chip & Pin transactions which can take 30 seconds over a VPN network and 4 seconds when the only change is the removal of the VPN.

- **Example Client Server Applications**

Microsoft, Office, Exchange Email, Access Databases

Client Server Applications: CRM, SAP, Accountancy, HR Productivity

Citrix, Terminal Services

Back Up and Security Solutions

Q No.	Question	Yes / No	Best available options
	Single or multi site businesses		
Q4	Internet Based Applications		Leased Line, ADSL, SDSL, MPLS.. Subject to Internet connectivity. Check bandwidth entitlements
	Multi site businesses		
Q5	Client Server - Not Speed Sensitive		VPN / Private Network
Q6	Client Server - Speed Sensitive		Private Network
Q7	Voice over IP / Video Conferencing		MPLS with QOS – other technology may be possible subject to Q8/Q9

2.3 Voice & Video applications

▪ Typically Multi Site Organisations

These are very sensitive to bandwidth and quality of service issues.

Voice over IP (VoIP)

Video Conferencing

For sites with large numbers of staff and very heavy voice traffic MPLS or a similar technology with quality of service (QOS) will be required. For sites with a low number of staff and light voice traffic usage then DSL technologies could provide a cost effective solution. A key question to ask is “what is the percentage of internal calls compared with external calls being routed to the remote office?” A high percentage of internal calls dramatically reduces the business risk and makes the cost savings attractive and low risk.

Q No.	Question	Yes / No	Best available options
	If VOIP or Video Conferencing		
Q8	Multi Site large populations at each location / heavy VOIP usage / High percentage of customer calls		MPLS with QOS
Q9	Multi site many small populations / Mainly internal calls		May not need QOS - so look at all options & talk to experts

3. What to do next?

Bonded ADSL fits a requirement for companies that need fast and reliable bandwidth. If your applications do not require QOS then Bonded ADSL could provide the connectivity you need and save you money.

Multi Site organisations have to also consider site to site connectivity which I would suggest our “Do you need MPLS” and “Could a data centres lower your costs?” white papers would provide additional food for thought.

LINK-CONNECT

Link-Connect have over 11 year’s expert knowledge in Internet connectivity and secure private networks.

Our Bonded ADSL network can ensure 100% up-time on your broadband connection as well making leased line bandwidth available at a fraction of the cost.

FURTHER READING

- **Do you need MPLS?**
- **Can you host in data centres and lower costs?**

Visit www.link-connect.com for additional white papers.

→ → → → → Making communication simple...

To discuss which connectivity options are the perfect fit for your company’s specific requirements contact Link-Connect Services on

0800 0354 777 advice@link-connect.com

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White Paper

Answer in 9 Questions

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Link-Connect

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Moor Park Lane
Farnham
Surrey
GU10 1QP

Tel 0800 0354 777

Fax 0845 366 23 01

Email advice@link-connect.com