

INFORMATION SECURITY: HOW TO CHOOSE AN INTERNET SERVICE PROVIDER

[Introduction](#)

[Your requirements](#)

[Different types of service](#)

[Web site hosting](#)

[Summary](#)

[Further help and advice](#)

Introduction

An ISP is a company that provides a gateway to the Internet for individuals and companies.

A small company is likely to use the Internet to seek ways to market its goods/services, to access information and to provide a means to bring the world to its door. Your choice of ISP can be critical.

Choosing an ISP requires a simple first step. Ask yourself: 'What do I want to use the Internet for?' If you can answer this, you can then start to work out your requirements.

The Internet Service Providers' Association (ISPA) is the UK trade association for providers of Internet services. See www.ispa.org.uk

Your requirements

These are the most important guides you will have to choosing an ISP. Remember that you will be entering a dynamic world that changes quickly and this will have an impact on how you want to use the Internet. To operate in this environment you need to be flexible and understand that what you think is appropriate to your needs today may not apply tomorrow. This applies especially to upgrading from one type of service or technology to another. Answers to the question 'What do I want to use the Internet for?' can include:

- 'To advertise my services'
- 'To allow me to get new sales leads'
- 'To let me trade across the world without moving from my comfortable rural home.'

The above question inevitably leads to supplementary questions including:

- 'How much will I use the Internet each month?'
- 'What time of day will I use it?'
- 'How much web space can I have?'
- 'Can someone host my web site for me?'
- 'Is customer support important to me?'
- 'How many e-mail addresses will I need?'
- 'Can the ISP support online payments?'
- 'How much will it cost?'

Different types of service

Once you have considered all these questions you then need to know the different types of service available. These include:

Pay-as-you-go

If you access the Internet on an occasional basis and don't want to have a web site, then this will be the solution to choose. Costs can be very competitive and these accounts can be set up very quickly and require little, if any, registration information.

Off-peak deals

These are for Internet usage generally between 6 pm and 8 am and at weekends. They will incur a flat monthly fee that allows unlimited access at the specified times. You can also go online outside the specified hours, but you will be charged according to call rates at that time of the day, an example of this type of service is BT Surftime. However, if most of your business use is during the day, this type of package might not be appropriate.

Unmetered access

There are numerous packages on offer by ISPs that will allow access to the Internet at any time for a flat monthly fee. However, most of these require the use of a BT line. There can be cut-off times when the user is disconnected after a specific time online and must reconnect to carry on. There can also be limits on the size of documents you may download and other usage restrictions may be imposed by the ISP, so read the terms and conditions carefully.

Leased lines

These are point-to-point connections varying in speed. They provide a direct, 'always-on' connection straight to an ISP, giving Internet access 24 hours a day, 7 days a week, usually via a device called a managed router (this provides a connection onto the Internet via the leased line). There is also the cost of a Service Level Agreement (SLA) to consider. The SLA provides agreed timescales for service and repair of the connection.

Broadband

Broadband is a term which refers to the connection to the Internet via a wide band of frequencies which can transmit information. There are several options for broadband: Digital Subscriber Line (DSL), which includes the common Asynchronous Digital Subscriber Line (ADSL), cable, commonly available for home use as well as business, satellite and wireless.

- ADSL utilises existing standard copper telephone lines, changing them into a high-speed digital link capable of carrying broadband services. This means most new subscribers don't have to install new connections, and many don't have to change main telephone numbers. The user installs a device called an ADSL modem that connects via a filter to the standard telephone socket. Users need to be within a certain minimum distance of a telephone exchange for ADSL to be available.

For further information, see www.bt.com/athome and follow the broadband links.

- Cable broadband normally uses fibre-optic cables, commonly installed in metropolitan areas for cable TV connection. Many such connections can run up to 40 times faster than standard narrowband, but require local cable access.

Connection is via a device known as a cable 'modem', although in reality it is not a true modem; it is similar to a cable TV set top box. If there are multiple broadband users on your local cable loop, the communication speeds can be dramatically reduced.

Many smaller packages offer five or more e-mail addresses as standard on setup of the account. If you take this option, make sure you can add more e-mail accounts if required.

- Satellite broadband can be an option if you are not within the reach of the other Broadband services. You will need a satellite dish for this type of connection. There can be limitations e.g. in terms of speeds so this type of connection may be better suited to home rather than business use.
- Wireless broadband is, relatively speaking, in its early stages and has limited availability but the technology is fast moving and this type of access is increasing in popularity and in particular it offers Internet access whilst on the move ("WiFi hotspots"). Security should always be a consideration in these circumstances.

Web site hosting

You will probably want to have your own company web site. Some ISPs can help develop this (for a fee), or you can provide your own web site code and then pay a 'rental' charge for space on a dedicated server.

You may find that there are various restrictions placed on such web sites. For example, the amount of traffic that can be handled (often called the 'bandwidth') can be restricted. This will become increasingly important should you seek to expand your Internet investment into trading online. Increasing traffic can mean a slower web site which can be off-putting for users.

Having established your requirements, the following points should be investigated:

- Range of offerings. What services does the ISP offer? For example:
 - web site hosting
 - web server housing
 - domain naming
 - web page development
 - online trading
 - security services.

Once you have established your requirements, you should be able to check whether a potential ISP can meet them through the services it offers.

- Performance. What bandwidth can the ISP provide? In other words, how quick will my link be? Ask potential ISPs the following questions:
 - If pursuing broadband: 'What is your connection ratio?' The connection ratio is the number of people with whom you share a broadband connection. A ratio of 50:1 means you would share bandwidth with 50 others. Similar issues exist when using cable-based broadband and can have an impact on performance.
 - Are there any bandwidth restrictions? Some ISPs limit the amount of data you can transfer in a given period. If you are a heavy user (downloading large files, such as graphics or sound), this could cause you problems.

- Account management. A major issue is management support of any contract you set up with an ISP. Whilst technical support is normally essential, it's worthwhile checking out a number of other issues. The first point is to establish whether you have an account manager or single point of contact.

This can make an enormous difference to the way you relate to an ISP. A good contact can make or break a relationship. Also, check the following issues, most of which relate to hidden costs:

- If you require extensive technical support, you may find that telephone charges mount up. Assess the technical competence of the people in your company. If they are inexperienced, you may find that you will need substantial telephone support. If you need assistance 24 hours a day, make sure you build this into your contracts.
- Make sure the ISP can meet your requirements. For example, it may not be able to handle secure payments. Double-check on the ISP's capability, as some make claims they are unable to fulfil e.g. check with your local Chamber of Commerce or with one of their current customers.
- An ISP can supply you with a 'domain name'. This is the name of the address you would use to tell people where to find you on the Internet (such as www.company.co.uk). Some ISPs lease the domain name to you. If this is the case, you may encounter problems should you ever wish to change to another ISP. Your domain name can prove valuable so if you think you are going to expand your use of the Internet, it may well be sensible actually to buy it.
- If you want to introduce changes to the technical set-up of your site or to your contract, make sure you know how such changes will be managed and invoiced. You may find that some alterations are charged at a standard rate whilst others are provided on a 'time and materials' basis. If you suspect you are likely to want to upgrade your service, ensure your ISP can offer such an improvement. If it can't, either don't use that ISP, or ensure your contract includes a 'get out' clause that won't affect you financially or result in a downgraded service.

The following is a common example of such a situation:

Be wary when upgrading to different forms of e-mail format. Many smaller users use Microsoft Outlook Express and a method known as POP mail as a way of managing incoming and outgoing email. As systems evolve, it may be sensible to use more sophisticated methods, one of which is called SMTP Relay. If you anticipate that your requirements will expand and evolve, it is worthwhile checking what kind of assistance an ISP can give in such matters, and also how it would charge for managing such change.

Summary

- Make sure you understand your requirements and that prospective ISPs do so as well. If these are mutually agreed, the chances of an appropriate, sustainable contract are much higher.
- Choosing an ISP is not just a technical matter; there are security, contractual and legal issues that need to be considered, understood and agreed. Technical details should reflect your commercial requirements.
- Ask the ISP about the potential for subsequent upgrades. If your ISP is offering a limited service and does not seem to have plans to enhance this,

- perhaps it is not the right ISP for you. If you plan to expand, make sure your ISP is able to offer a suitable upgrade.
- Technical advice will never replace standard business practice, especially due diligence. Make sure your intended ISP is going to stay around for as long as you need it. As with checking your ISP's capability it is worthwhile seeking the opinion of one of their current customers (many ISPs will direct you to client sites) or checking their credentials with a local organisation such as the Chamber of Commerce. If it goes out of business, your business may be severely restricted. If you don't own your domain name, this could become a difficult situation.

Please refer to the guidance material on Broadband, Online Trading, and our Guide for New Computer Users contained in the General section of our business advice pages (see below) for further information.

Further help and advice

General

BERR Information Security Health Check Tool

<http://www.securityhealthcheck.berr.gov.uk/>

BERR Information Security Home page

www.berr.gov.uk/sectors/infosec

BERR Information Security Business Advice pages

<http://www.berr.gov.uk/sectors/infosec/infosecadvice/page10059.html>

BERR Information Security Publications (available to order or download)

<http://www.berr.gov.uk/sectors/infosec/infosecdownloads/page9935.html>

Published by the Department for Business, Enterprise & Regulatory Reform.

www.berr.gov.uk

© Crown Copyright. URN 09/644.