



# E-COMMERCE

## A GUIDE FOR NEW ZEALAND BUSINESS

New Zealand will be world class in embracing  
e-commerce for competitive advantage



Ministry of Economic  
Development



*Manatū Ōhanga*

# HOW TO USE THIS GUIDE

Electronic commerce is changing the face of business and all business people should be thinking about the implications.

The guide is designed to give you enough basic information to start assessing the opportunities open to your business. It will:

- give you some understanding of how the Internet may affect your business
- offer an insight into how other small New Zealand businesses are taking advantage of e-commerce
- provide some practical advice on how to get started, and
- alert you to some of the pitfalls and issues to be addressed.

In writing the guide, we have kept the needs of beginners in mind as well as those with more experience. Beginners will benefit from reading the whole book from beginning to end. The more experienced may prefer to use it as a reference book, and to fill in the gaps in their knowledge.

The guide is divided into three parts.

Part 1 explains what e-commerce is and the changes it is likely to make to the way we do business, and looks at the changes driving the rapid growth in e-commerce.

Part 2 looks at the experiences of a few New Zealand businesses that have taken the plunge, and are now successfully using e-commerce and the Internet as important business tools.

Part 3 provides some practical guidance and advice. It outlines some of the issues you need to think about.

We have assumed that you already know what the Internet is, and that you know about e-mail and the World Wide Web. But if you need more information on these topics, there is a brief explanation at the back of the Guide. There you will also find a list of places to go for more help. There is also a glossary to demystify the jargon, so you'll feel more confident when you deal with suppliers of specialist services.

Although we can't tell you how to run your business, or what changes you should make, at the very least we hope that this guide will stimulate your thinking, and help you begin the task of navigating through the changes, avoiding the pitfalls, and maximising the benefits. For an extensive range of links to more detailed information, go to [www.ecommerce.govt.nz](http://www.ecommerce.govt.nz)

# FOREWORD

The emergence of the Internet in the 1990s has fueled the recent rapid growth of electronic commerce, and this in turn is changing the nature of business. Increasingly, no matter what business you are in, whether it be services, manufacturing, or the primary sector, the capacity to access and process information, and to interact more directly and speedily with suppliers and customers, is becoming the central means of creating value.

Today, electronic commerce is having an effect on the way many New Zealanders do business. New opportunities for exporting, for creating new businesses, and for growing established businesses are resulting. In researching this guide, it has become clear that younger people especially are creating their own Internet-based businesses instead of working for someone else. Equally, a growing number of New Zealanders of all ages and from all walks of life are grasping the opportunities the Internet offers. All these businesses are creating exciting new products and services and are adding value and dynamism to the economy.

This new environment also poses risks. Markets are changing and customers are becoming more demanding. Labour, products, and services flow ever more easily across international borders.

The purpose of this guide is to

demonstrate some of the possibilities based on real New Zealand success stories, and to encourage more of New Zealand's small and medium-sized businesses to use these new technologies to similar advantage.

To this end we encourage you not only to read this guide, but also to find out as much as you can about the Internet and electronic commerce from other sources, and how these new technologies are changing the face of business.

There is ample information available, in books and magazines, and of course the information that can be found on the Internet itself. Find something you feel comfortable with. Talk to others in your industry and in your community. Grow your knowledge, and together we will grow the economy.

## Acknowledgements

We are grateful to the following people for their expert help in preparing this guide: Laurence Chiu, Deloitte Touche Tohmatsu; Prashanta Mukherjee, IBM; John Pettigrew, Consultant; EAN NZ. The guide was based on original research by Catherine Wallace, Department of Human Resource Management, Massey University, and written by the Ministry of Economic Development, assisted by Anne French. Designed by Sublime Design.

Published by the Ministry of Economic Development, PO Box 1473, Wellington



# CONTENTS

---

3 PART 1: BACKGROUND

9 PART 2: CASE STUDIES

18 PART 3: IMPLEMENTATION

31 GLOSSARY

32 APPENDIX 1: WHAT EXACTLY IS THE INTERNET?

33 APPENDIX 2: INTERNET ACCESS

35 APPENDIX 3: WHERE TO GO FOR HELP

LIST OF WEB SITES

## PART 1: BACKGROUND

There are some very big changes going on in the way the world does business. These changes are being driven by the availability of fast, powerful, and cheap computers, fast and cheap telecommunications, and the rise of global electronic networks, particularly the Internet.

These technologies are driving the rapid growth of electronic commerce. In the next few years, e-commerce will certainly impact in some way on your business, if it hasn't done so already.

E-commerce brings with it many opportunities. It also poses some risks. Whole industries are being transformed beyond recognition. Some businesses will prosper, while others will perish. About the only thing that's certain is that you won't prosper by ignoring what's happening. The better you understand what is going on, the better you will be able to use it to benefit your business.

### How big is the change?

At the beginning of the 1990s, no one had heard of the Internet, apart from a few researchers and academics. Just ten years later, some 360 million people around the world have Internet access, and the number of Internet users continues to grow rapidly. (For the latest figures, see [www.nua.ie/surveys/how\\_many\\_online/index.html](http://www.nua.ie/surveys/how_many_online/index.html)).

Five years ago, few people were thinking about electronic commerce, other than large companies that could afford to buy expensive proprietary systems. Today, New Zealanders from all walks of life are buying and selling goods and services on-line, from the weekly groceries to airline tickets, software, music, arts and crafts, and clothing.

Today, dairy farmers can use the Internet to access information from [www.fencepost.com](http://www.fencepost.com), a Web site that gives suppliers to Kiwi Dairies data such as farm-specific daily production figures.

Electronic market places are being set up in a variety of industries. [Lignus.co.nz](http://Lignus.co.nz), for instance, is an Internet-based marketplace for trading timber and wood-based products.

Job search sites like [monster.co.nz](http://monster.co.nz) are changing the face of recruitment.

In 2000, IDC (a research company) estimates that the value of New Zealand's Internet-based electronic commerce will exceed \$800 million. That is not counting New Zealand's wholesale electricity market, which in itself is worth a billion dollars annually, and which operates the first electricity trading system in the world accessible through the Internet (see [www.m-co.co.nz](http://www.m-co.co.nz)).

Globally, Forrester Research (a research company) predicts that the value of Internet-based e-commerce will grow from \$US5.7 billion in 2000 to US\$6.8 trillion in 2004.

The message is simple. E-commerce is big, it's global, it's growing rapidly, and it's here to stay.

### Quick Kiwis

Research shows that New Zealanders are usually quick to embrace new technology. When it comes to the Internet, we are true to form. We have been buying computers, signing up with Internet Service Providers, and getting on line at a pretty impressive rate.

New Zealand has a strong foundation on which it can build its e-commerce capability and become a world leader in the field. We score well against all the internationally accepted measures of e-commerce uptake, such as number of Web sites, the growth in commercial Internet domain name registrations, and the number of secure servers.<sup>1</sup>

The cost of accessing the Internet in New Zealand is almost as low as it is in the US. Broadband access to the Internet at a reasonable price, via ADSL, cable and wireless technologies is available now in a number of locations – in fact, we are ahead of Australia in this respect.

In addition, New Zealanders have already adapted to the *idea* of electronic transactions, as can be seen from our high use of EFTPOS and telephone banking technologies. In New Zealand there is one EFTPOS machine for every 54 people – that's the highest penetration of EFTPOS in the world.

All this means that we already have a well developed infrastructure, and a foundation of understanding and experience on which to

<sup>1</sup> Statistics are available at [www.ecommerce.govt.nz](http://www.ecommerce.govt.nz)

build. The challenge for New Zealand business is to make the leap to the next stage and take advantage of the huge range of e-commerce opportunities before us, while managing the new competitive risks that are emerging.

### Way to go

Many large New Zealand businesses have already begun to use the Internet to do business – and in the process they have been changing the way they do business. For them, the ‘e’ in e-commerce stands for ‘efficient’ and ‘effective’.

Research indicates that New Zealand’s smaller businesses have not been as quick as the larger firms to take advantage of the Internet and e-commerce. Small businesses are the powerhouse of New Zealand’s economy. For everyone’s sake, it’s important that all New Zealanders in business – owners, managers, and employees alike – understand and come to terms with the way the Internet will affect their business.

Smaller businesses have much to gain from these technologies. Indeed, as we will show, there are some very fine examples of small New Zealand businesses that *have* grasped the opportunities, dramatically enhancing their products and services and the way they do business.

### So just what is e-commerce?

E-commerce means on-line trading, that is, buying and selling goods and services over electronic networks. Although e-commerce refers to all electronic transactions over *any* electronic network, today we tend to think of it as transactions carried out using the Internet.

Like the Internet, electronic commerce has in fact been around for a long time. Large corporations have been conducting electronic transactions via Electronic Data Interchange (or EDI) for years. The problem is that EDI is run on proprietary networks, and uses proprietary software. It is too expensive to be used by smaller businesses.

The Internet, on the other hand, is an open network. The software that makes the Internet work is in the public domain. Anyone can install it for free. The Internet Service

Providers (ISPs) who sell you Internet access are often owned by large companies, which also own the telecommunications networks over which the Internet runs, but they don’t own the Internet itself. No one does.

This means that accessing and using the Internet is relatively inexpensive. It makes it possible for a one-person business in Morrinsville, say, to use technology that once would only have been available to a multinational company. It means that our Morrinsville business, courtesy of the Internet, can operate in the global environment, participating in global networks and markets.

### E-business – connecting the inside with the outside

As well as e-commerce, the experts also talk about e-business. The distinction between the two can be slippery.

Using this distinction, ‘e-commerce’ is about financial transactions, while ‘e-business’ is about all business processes, from marketing and sales to information management and human resources.

Most businesses already use information technology (computers) to a greater or lesser degree in the management of their internal processes.

Many businesses are now connecting to the Internet, and using Internet technologies to communicate and transact with external customers and suppliers, and to market their products on the Web. So there are internal systems, and an external network. Connect the internal systems to the external system, creating one *integrated* system, and you have e-business. If you want a more technical definition:

*E-business merges the standards, simplicity, low cost, and connectivity of Internet technologies with traditional information technology and business processes to create new business value, enable new relationships, and build trust for an enterprise, its customers and its industry.<sup>2</sup>*

That all sounds a bit abstract, so here are a

<sup>2</sup> Laurence Chiu, Deloitte Touche Tohmatsu, Wellington.

few concrete examples of things a company thinking 'e-business' might do:

- use e-mail to place orders with suppliers or receive orders from business customers
- give customers access to order and invoice information electronically via a Web site
- replace paper-based systems (internal and external, e.g. purchase orders and invoices) with electronic documents
- share access to documents or other information on an internal network within the business (so that sales staff can get access to sales figures while they're on the road, using their lap-top computers, for instance)
- enable the customer's computer system to 'talk' directly (i.e. electronically) to the company's computer system
- obtain customs clearance electronically for incoming shipments of goods, and
- track courier consignments electronically (this can be done by the courier company itself or by its customers).

As you can see, and as the case studies in this guide will demonstrate, outside of the textbooks e-commerce and e-business come in many shades. There are many levels of uptake, from the simple use of e-mail, to a fully e-commerce-enabled Web site that is completely integrated into your internal business systems, as well as those of your key customers and suppliers.

The bottom line is that all organisations, not just large corporates, now have an opportunity to take advantage of world-wide networks.

### The value of e-commerce for business

Electronic commerce is about moving physical business processes to the electronic environment of the Internet. Instead of sending a fax or a letter, you send an e-mail, or access a Web site.

By using electronic instead of physical means, these processes are faster and less susceptible to human error, reducing the cost of transactions and contributing significantly to business efficiency. Other benefits of the

electronic environment include:

- the potential for much greater collaboration and customisation in design
- lower inventory costs
- faster production
- lower supply costs.

Besides the simple reduction in costs through increased efficiency, there are other benefits:

- the reach of the organisation is increased, enabling it to interact with new and different ('non-traditional') suppliers or customers
- business relationships can change by connecting businesses that were not directly connected on the pre-Internet supply chain
- businesses are better able to reach or combine markets across borders, making national borders less of a barrier
- it is easier to enter new export markets, making activities possible that cannot be supported by the local or national market (particularly beneficial for those SMEs located in low population areas and operating in niche markets)
- time-zone differences can become an advantage, and
- managers can get a much better understanding of the real value drivers in the business.

In a nutshell, the Internet makes possible a much more varied and richer range of supplier and customer relationships. It provides an ability to collect and analyse much greater amounts of information *about* those relationships. This opens up opportunities for new business models to develop, creating new sources of wealth.

All this may seem somewhat abstract, but once you have read the Case Studies in Part 2 you'll be clearer about how e-commerce works in practice, and you'll be able to get an idea of the benefits for your business.

### What you already know about e-commerce

Though you may not realise it, as a New Zealander, you already know a bit about

### Take this simple test

Have you ever used an automatic teller machine or EFTPOS? Of course you have. Have you ever ordered theatre or movie tickets using an automated phone system? Checked your bank balance over the phone? Have you ever signed your name on a hand-held computer to accept delivery of a package? Do you ever receive electronic mail from your customers? Do you receive e-mails or faxes from your suppliers with quotes, product information, or delivery status updates? Have you ever used the World Wide Web to get more information about a type of product you're interested in buying?

*If you answered 'yes' to any of these questions, then you have engaged in electronic commerce.*

e-commerce.

### The e-commerce bonsai

The most familiar example of e-commerce in New Zealand is EFTPOS. In fact it is so familiar we have forgotten what a big shift in behaviour EFTPOS represents.

New Zealand is the most EFTPOS-enabled country in the world. Our rapid uptake of EFTPOS, and our first-hand experience of its convenience can give us valuable clues about the effect that Internet-enabled e-commerce will have on us. It's a bit like comparing a bonsai pine tree with a real pine tree – EFTPOS is the miniature or bonsai version of e-commerce.

EFTPOS has many advantages for users. It:

- eliminates unnecessary or expensive steps in the transaction process (no need for cash or cheques)
- speeds things up – money is instantly moved from the customer's bank account to the retailer's
- automates systems, and
- enables the retailer to be integrated directly into the banking network.

EFTPOS has had a dramatic effect on people's behaviour. Most consumers use fewer cheques these days. The value of cheque transactions fell from \$464 million in 1993 to \$277 million in 1999. Most of the cheques still being written are for business to business transactions. Consumers expect retailers to be able to give them cash when they make a purchase – in effect, New Zealanders' access to their bank accounts is now as close as the corner dairy or petrol station. When you include telephone banking, our access to banking services is available pretty much anytime, anywhere.

### Telephone banking

Many people are so familiar with EFTPOS they find it difficult to see it as revolutionary. So if you aren't convinced yet, think about telephone banking as a way to understand how Internet technologies can change the way you do business.

Telephone banking has lots of advantages for the customer. It:

- provides 24 hour access to the bank
- eliminates unnecessary steps in the transaction process
- does away with cheques, stamps, and trips to utility offices to pay bills
- allows payment of bills any time of day or night, and
- gives customers greater flexibility and control (a big bill can be paid off a little at a time over several weeks).

Telephone banking has changed the way people handle their money and their bills, by making it all much easier to manage and easier to track. No more reconciling the cheque book. Overdrawn at 2am? Just ring the bank and transfer money into the account. (And, of course, it offers significant cost savings to banks as well.)

### The big pine tree

One way to get to grips with e-commerce is to think of the ideas behind EFTPOS and telephone banking (automating the business process, eliminating unnecessary steps, speeding processes up, saving costs, and providing a better service) and apply them to

the *whole* business using Internet technologies.

Now take this a step further. Telephone banking enables you, the customer, to *directly* interact with the bank's systems without the need for a teller, or any other intermediary. You are your own teller. What is more, you can do it at a distance. Your terminal is any telephone.

What if you could interact directly with your suppliers in the same way?

What if your customers could interact with you in the same way, on-line and at their convenience?

This is what Internet-based e-commerce makes possible.

### But the Internet is different from EFTPOS...

... for one very simple reason. EFTPOS and telephone banking are limited in what you can do with them (you need a card and a terminal to pay for something, or a telephone, a password, and a bank account to perform some simple transactions); but the Internet, to all intents and purposes, is unlimited.

EFTPOS and telephone banking are designed for one purpose – moving money around. The Internet, on the other hand, is specifically designed to be multi-purpose. It is a platform over which you can run any application you want. Hence it can be used to send and receive photographs, spreadsheets, documentation, software, audio and video, reports, invoices, and orders. Indeed, if something can be turned into digital ones and zeros, the Internet can deliver it.

The big difference with Internet-based e-commerce is its flexibility and the potential to apply it to the whole business, not just the movement of money. This can have profound implications for how the business is run, and indeed can change the nature of the business itself.

### The power of networks

To understand the power of the Internet it is necessary to understand the power of networks. Back in the days when the telephone had just been invented, telephones

weren't very useful, because there weren't very many people you could ring up. Now that almost every household has at least one phone, and many people also have a phone in their pocket, they are so useful that most of us regard them as essential. Telephones are a perfect illustration of Metcalfe's Law: the value of being connected to a network grows exponentially as the network grows, while the cost per user stays the same.<sup>3</sup>

The power of the Internet comes from its size. A connection to the Internet in the year 2000 with 360 million users and access to 2 billion Web pages is much more valuable to the user, yet is much less expensive, than a connection to the Internet was in 1990 with less than a million users and no Web pages at all. The result is that the bigger the Internet grows, the more important it becomes. Already, having an e-mail address is as important as having a fax machine. Soon it will be just like having a telephone.

### Think B2B, B2C, G2B, dooBdoo

Increasingly, e-commerce is described in terms of relationships and processes. We have already noted the need for experts to differentiate between e-commerce and e-business. Other kinds of relationships need further definitions.

Electronic buying and selling can be done between businesses (this is known as **B2B** for short) or between businesses and consumers (commonly called **B2C** or **e-tailing**). Governments and businesses also inter-relate a lot, and this is known as **G2B** (or **B2G**). And indeed consumers are transacting directly with other consumers, which is of course **C2C**.

Buying CDs from Amazon.com is known as **dooBdoo** (actually, we made that bit up). But seriously, buying books or CDs from Amazon.com is for lots of people the most familiar example of e-commerce of the B2C kind. (New Zealand examples include FlyingPig.co.nz or www.nzbooks.com for

<sup>3</sup> *Metcalfe's Law states that the number of connections increases exponentially as users are added to a communications network. The value of each additional user increases as users are added, while the cost per user remains constant.*

books and Cdstar.co.nz for CDs.)

An example of B2B is Biolab Direct (www.biolab.co.nz). Biolab sells laboratory and scientific supplies to the Australasian market. They have implemented an electronic commerce system that enables customers to browse their database for product specifications, availability, and price. Customers can create orders and send them via the Internet. Biolab can integrate the Biolab Direct system with customers' own purchasing systems.

An example of B2G in New Zealand is registering a company on-line at the Companies Office Web site (www.companies.govt.nz). This facility has made the process much faster and greatly reduced the cost.

C2C is an Internet-generated phenomenon. Auction Web sites like the massive ebay.com in the United States and our own Trademe (www.trademe.co.nz) are enabling millions of individuals to sell goods and services to each other. Indeed in the United States some businesses are bypassing Web sites altogether and selling directly through Ebay.

These relationships are not new: they have always existed. We have never before felt the need to separate them out and give them names. So why are we doing it now?

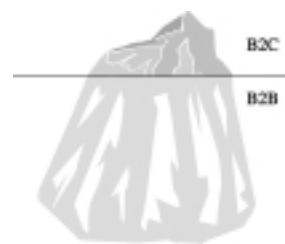
The simple answer is that the rise of e-commerce is forcing us to think. E-commerce is about automation and interaction. It is about networks and relationships and systems. In order for it to work, organisations, from large government agencies to small businesses, have to put serious thought into what their business actually does, with whom it actually deals, and to what purpose.

For instance, what is it the business does to create value? Sometimes the answer is unexpected.

At a fundamental level, e-commerce is about logistics and systems. As you go down the e-commerce route you will have to do some serious thinking about the nature and functions of your business. Until these relationships and processes have been worked out, any e-commerce systems you implement are unlikely to be truly effective.

### Confused? Think of an iceberg

It may help to think of e-commerce as an iceberg. B2C is the visible tip sticking up above the water – the part we all hear about. But seven-eighths of the iceberg, the B2B part, is out of sight below the water. You can't see it, but it's there – and it's incredibly important.



In this guide, we have used the term **e-commerce** to refer to the whole iceberg, following common usage, and have used the terms B2B and B2C to distinguish between business-to-business and business-to-consumer transactions.

### B2B or B2C?

The experts think that most small and medium-sized businesses in New Zealand stand to benefit from B2B, but that B2C won't be as important to many of them. (There's more on this point in Part 2.) In fact, the jury is out on what will constitute a successful e-tail strategy, as even huge companies like Amazon.com have yet to make a profit. It is likely that a combination of storefront shops and e-tailing facilities will be the most successful business model. (This is known as 'clicks and mortar'.) Alternatively, 'pure play' e-tailers (like Amazon) may form alliances with existing 'bricks and mortar' networks, to provide a shop front.

B2B is more to do with streamlining relationships with customers and suppliers, making dealings faster and more effective. At a more abstract level it is about networks and computers collecting, processing and moving information which makes the operation of markets more efficient and more responsive. Several case studies in Part Two illustrate the potential benefits of B2B.

## PART 2: CASE STUDIES

There are many examples of New Zealand businesses that are using the Internet and e-commerce. The following case studies illustrate the range of ways in which the Internet can be used, and the kinds of results that can be achieved.

If you haven't done so already, make it a priority to go browsing, to form your own view of what is being offered. As a starting point look through a New Zealand on-line directory such as [www.accessnz.co.nz](http://www.accessnz.co.nz)

Find out what other companies in your

industry sector are up to. (If you can't immediately get on line to look, ring a few of your mates, and ask them what they're up to. You'll find out quite quickly if you're way behind your competitors.) Don't be afraid to apply the thinking of others to a similar problem of your own, especially if their business model looks as though it could work in your industry sector. Imitation is the sincerest form of flattery – and there's no harm in imitating a success story.

### B2B: BECOMING MORE EFFICIENT

#### Renaissance Distribution

[www.renaissance.co.nz](http://www.renaissance.co.nz)

[www.thewebconduit.com](http://www.thewebconduit.com)

Renaissance is a computer distribution company based in Auckland, handling technology products for Apple, Hewlett-Packard, Toshiba, Compaq, and Microsoft. Currently it does 30 per cent of its transactions on-line – about \$1 million worth of business every week.

In the three years since Renaissance started using an e-commerce platform called Conduit, transaction values have doubled, while the number of people required to service that business has gone down by a third.

According to Clive Lewis, one of the directors, 'The principal reason we went into the partnership [with Conduit] was to reduce the overall cost of transactions. There's no question about it, we are delighted with our success; and the reason is that we have re-engineered the business around the system. The changes have made us more price-competitive, which is good for our customers, and made us more profitable, which is good for us.'

Customers who order on line can see what they are buying and check its availability. Orders are converted into despatch notes instantly, and sent out the same day. This replaces a system where orders were taken over the phone, confirmed by fax, and keyed into a distribution system, allowing errors to creep in. 'We have calculated that it takes us six times as long to implement a credit note than it does an invoice. With our error rate now below 1 per cent, we are making significant savings in time, and so are our customers.'

Renaissance expects to be transacting at least 50 per cent of its business on-line by the end of 2000, and is seeking to reach 100 per cent eventually. They are trading 24 hours a day, seven days a week, and 12 per cent of their orders come in after dark, so the new business hours obviously suit their customers.

But Lewis warns, 'For businesses to gain the full advantage of e-commerce does require considerable thinking. It's a great opportunity to look hard at the business model you are operating and eliminate a huge amount of wastage.'



### Servotech

[www.servotech.co.nz](http://www.servotech.co.nz)

One company that has had to fit in with its key customers' procurement systems is Servotech Instrumentation Ltd. Servotech is an ISO 9001-accredited company that designs, manufactures, and repairs laboratory and industrial temperature equipment, mainly temperature probes and their associated electronic instrumentation. It's the only New Zealand company that specialises in temperature measurement.

Servotech has a network of specialist suppliers around the world, such as Japan, the UK, the US, Canada, Germany, and Asia, and sources raw materials such as stainless steel, cable, adhesives, and welding supplies from New Zealand suppliers.

Servotech customises products to customers' requirements, and offers fast delivery and high quality for virtually any temperature application. Its competitive advantage comes from its specialist knowledge of temperature probes, the ability to customise, and fast delivery of a quality product. Nearly 70 per cent of its business is repeat orders of existing designs for regular customers.

Servotech's three major customers, BHP NZ Steel, Fletcher Panel, and NZ Dairy/Anchor Milk all use electronic procurement systems. All three work with their key suppliers so they can place orders electronically. BHP NZ Steel, for instance, has automated its inventory system. When stock gets low, an email order is automatically sent to Servotech to supply.

Servotech plans to upgrade its Web site with an interactive catalogue, showing existing customers their special probes, with part numbers. Customers will be able to place an order by point-and-click, or build their own probe on screen and click to order it. Currently Servotech takes payment from the site using credit cards, but once the new site is up they will progress to electronic invoicing and purchasing.

## B2B: FINDING NEW CUSTOMERS AND OVERCOMING DISTANCE

### Talbot Plastics

[talbotplastics.com](http://talbotplastics.com)

Talbot Plastics Ltd is a private company that was established in 1972 to provide specialist custom injection-moulding and tool-making services. Well over half the company's output is exported, and the majority of its New Zealand customers are exporters in their own right.

Talbot Plastics was originally set up to serve South Island industry, but its customers now range from Invercargill to Auckland as well as Singapore, the Philippines, Japan, Indonesia, the United States, the Pacific Islands, and Australia. Its customers are generally manufacturers who value quality and service, and require technical back-up and continuous product and process development.

Manager Steve Wilson explains how they have made the Internet an important marketing and sales channel. 'We are certainly not e-commerce whizzes at Talbot Plastics. While e-commerce plays a major part in our business and its development, it is very much at the 'oily rag' end of the technology spectrum. There is nothing particularly clever or glamorous about what we do. We have a crude Web site, but it is not important to us, as we have very few proprietary lines that we want to use it as a shop window for.

'We use the Internet extensively to establish and maintain contact with export customers. We begin by researching potential new customers (generally in the US), and then we cold-call on them by e-mail. Because we can carefully target customers whom we can be fairly sure of attracting, the success rate is good. These initial cold calls include a simple company profile in

Word, photos of our factory and myself (to personalise the approach), and details of referees and their email addresses. When we have attracted some interest, and we have convinced a customer to send us a digital design file of a plastic part or assembly they want us to price, we try to get a quotation back on their desktop by the next morning. We use the key strategic advantage that we are awake, and at work, while they sleep.

'We offer to have rapid prototypes made for them and, if they agree, we courier them via FedEx or DHL. Often we can get a prototype on their desk within a week to 10 days of their original enquiry. That impresses them. In the early days of a relationship this is important.

'Once we convince a customer to email us an order for a new mould (generally in the \$10,000 to \$50,000 range), and telegraphically transfer us a tooling deposit, we then send them digital photos showing the progress with tool-making, to cover the natural nervousness of sending money to the other side of the world, and not being sure that anything is happening for it.

'Generally, once a relationship is established, it becomes a steady one. We probably get to know our Internet-based customers better than our local ones, as email communication forces you to personalise things, and to be explicit.

'Our experience illustrates what a leveller the Internet can be, if it is used effectively. Furthermore, it allows a customer to fit their own image to a supplier, based entirely on performance. It gives a New Zealand supplier with customers in other time zones a competitive advantage that helps off-set the distance from its markets.'

### Needlecraft Distributors Ltd

[www.needlecraft.co.nz](http://www.needlecraft.co.nz)

Needlecraft Distributors is a supplier of embroidery and patchwork requisites, based in Palmerston North, and calls itself 'the largest specialist stitching supplies retailer in New Zealand'. Needlecraft has three channels: the shop, the mail-order business, and the Web site.

The Needlecraft site has an electronic catalogue to display patchwork fabric and embroidery supplies. This has several advantages over the tabloid publication *Needlecraft News*, which is published bi-monthly, with only some pages in colour. The Web site is updated weekly and all samples are in colour. While some of Needlecraft's customers do not wish to order on-line, they use the virtual catalogue on the Web site to select their purchases.

Another benefit of the on-line catalogue is that designers see the site and approach Needlecraft to carry their products. This has meant reduced travel costs. The owners used to travel to the United States to find new products but now find that they can view these on the suppliers' and manufacturers' Web sites.

Needlecraft's Managing Director, Vallis Peet, says: 'The Internet has opened the world for our business, both in additional customers and in helping us find new and exciting products to add to our range. I recommend getting on to the Net ASAP but make sure you update your site frequently, otherwise the hits will stop coming. The Internet and e-commerce will only continue to grow, and those businesses that do not have Web sites will miss out.'

## B2C - MAIL ORDER GETS WIRED

E-tailing has taken off in the United States, and is the public face of e-commerce. Most people have heard of the on-line bookstore Amazon.com. While Amazon has been

phenomenally successful in capturing global attention and market share, it has yet to make a profit.

In New Zealand, attempts at mass-market

*continued on page 13.*

### [Cranium.co.nz](http://www.cranium.co.nz)

[www.cranium.co.nz](http://www.cranium.co.nz)

The founders of Cranium Music know about catering to a niche market and thinking globally. The guys at Cranium are based near Hamilton, but their site, selling a rather specialised range of music, attracts enthusiasts from all round the world. The site offers CDs, LPs, videos and books for sale (with free shipping to 'anywhere on the planet'), a searchable catalogue, links to other sites of interest, discussion forums, free MP3 downloads, and a sense of community through a shared interest.

Cranium shows how NZ e-tailers can be successful, not by emulating the mass market approach of an Amazon, but by selling to a 'global niche' – in this case by being a supplier to the world of Progressive, Space, Kraut Rock, Psychedelic, Electronic, and Experimental music from all around the world, and backing that up by being a clearing-house of information on such music.

### [OBO Goal Keeping](http://www.obo.co.nz)

[www.obo.co.nz](http://www.obo.co.nz)

OBO sells protective hockey gear for goalies. Based in Palmerston North, it is already a market leader, with annual sales totalling nearly \$3 million. One third of its market is in Europe, where it has up to 60 per cent market share in some countries. OBO went into manufacturing in 1992, and eight years later the gold-, silver-, and bronze-medal teams at the Olympics in Sydney were wearing OBO gear.

OBO sells a niche product, and the New Zealand market is small. But there are 100,000 goalies in 120 countries round the world, and OBO can now reach them directly via its Web site. OBO sells via agents in 15 countries, with another 11 handled by the European agent. OBO's Web presence, [www.obo.co.nz](http://www.obo.co.nz), has enabled the company to reach a much wider audience than that previously served by agents.

The site is working well – there are now 100,000 visitors to the site annually and around \$150,000 in sales. But it is important that the site should not compete with the existing distribution channel in the biggest markets. Prices through the site are higher than those through the agent network, so that the retail presence is maintained in key markets.

Company director Simon Barnett says: 'The Web site has been an enormous effort. You can imagine that a company that is set up to deal with 15 agents is quite different from one that sells to 100,000 people. The site is very information- and communication-oriented. We are pretty clear that it is a support mechanism for the brand and the sale of equipment through the agents – and we will pick up the odd sale here and there.'

A strong relationship with field hockey goalies has been made by establishing a virtual community. Barnett comments: 'We sponsor goalkeepers. We email out to 900-1000 people bi-weekly, and give them the opportunity to ask an expert about the game and the equipment, join a database, link to other hockey sites, and seek readers' opinions. We try to get people involved by having their photo on the Web site. If we can get people involved, they'll love the brand name and the image and the feelings that go with it.'

'We use the Web site for research and development through focus groups. We give a topic such as goal-keeping shoes – is there a need for them? What features should they have? What pricing? The focus group is carefully selected off the database, given the brief, and asked to respond by the end of the week with their opinions. People write pages and pages... We circulate the responses by email, draw them together, ask for comments on the final summary, and then write the product brief for the shoe. It costs us almost nothing.'

Barnett summarises succinctly: 'You need to distil a key point of difference. What is the point of difference you are providing that is relevant to the market? You need to be able to provide it in an on-going way.'

e-tailing have not been all that successful. On-line supermarket shopping is probably the most successful example, but that is probably because it caters to a niche market – those people who are too busy to do the weekly shopping themselves and can afford the delivery charge. Indeed, in New Zealand successful e-tailers have tended to be those businesses that cater to a niche market, often combined with a global outlook. Consequently they don't have a very high profile in the media.

Companies best equipped for B2C or 'e-tailing' are those that already sell by mail order, as these companies have already addressed many of the issues that arise from the e-tailing business model (such as fulfilling orders). Those retailers that move into e-tailing must decide what it means for the focus of their business, and how they will manage a whole range of issues from marketing, fulfilment and customer relations

to how to manage returns.

Of course, if your business is based on a product that can be delivered digitally *via* the Internet, like software or music, then obviously the Internet is the way to go.

What exactly is a 'global niche'? Good question. The 'global niche' can be defined as a market that is too small to be profitable in any one locality, but becomes viable when aggregated on a global scale.

OBO is an example of an existing business that has established Web-based transactions in addition to traditional channels. Many B2C e-commerce examples start off as a traditional business ('bricks and mortar') and then develop their on-line channel ('clicks and mortar').

Some e-tailers use the Internet to create an entirely new business model, creating extra value for their customers and themselves. One of those is International Cars Direct, a New Zealand importer of used Japanese cars – to order.

### International Cars Direct

[www.carsdirect.co.nz](http://www.carsdirect.co.nz)

Cars Direct is the virtual side of a Christchurch car company. They offer 3,000 cars to choose from on their Web site, half of which are in New Zealand already, and the remainder in Japan. If you can't find the car you want, you can specify your requirements – such as make, model, year, engine size, mileage, colour, any other features, and maximum price – and Cars Direct's representative will contact you by phone.

When you have decided what you want, Cars Direct's Japanese agent will try to source the car from Japan. Once the car has been located, photographs are taken inside and out and e-mailed to Cars Direct for the prospective customer to look at. If you are still interested, the car is shipped to New Zealand for your inspection.

Even after freight costs have been included, prices are somewhat lower than usual, because most vehicles are bought by the customer who initiated the order, rather than waiting in the yard for a buyer to turn up. The agent saves on inventory costs, and the customer gets the benefit of buying in the huge Japanese market. Other features offered include the ability to search the database to compare features and get the best deal, as well as warranties, finance, and leasing options. The advantage is that the customer is buying from a licensed New Zealand motor vehicle dealer, based in New Zealand, and subject to New Zealand consumer law – with premises in central Christchurch. Today, Cars Direct is doing more than 60 per cent of their business via the Internet.

### Internet-only businesses

Many B2B business models could not have been implemented in the pre-Internet world, because they depend totally on its

connectivity. One of these is Sparesfinder.

Sometimes people manage to create a successful business out of their own enthusiasms. Arts & Letters Daily is a case in point.

#### Sparesfinder.com

[www.sparesfinder.com](http://www.sparesfinder.com)

Not yet three years old, Sparesfinder has already signed up all the major companies in the petro-chemical industry in Australia, New Zealand, and the North Sea, and almost all those in the power generation industry. With sales and representation on all five continents, Sparesfinder.com is now a global business.

Engineering consultant Brian Oxenham used to walk around large engineering and manufacturing firms every day, and observed that almost every site carried far too big an inventory of spare parts. Thousands, sometimes millions, of dollars worth.

Ironically, parts not needed at one site could be desperately wanted elsewhere, even within the same company. But with no secondary market with which to sell or trade surplus parts, there was no easy way for buyers and sellers to find each other.

One evening Oxenham asked colleague Stephen Herstell, 'Could we do this?' 'I thought it was an absolutely brilliant idea,' says Herstell, 'and we did.'

The result is an entirely Web-based business. Clients, typically large industrial companies, pay an annual subscription per site. For that they receive easily loaded software that plugs into their own inventory control database and automatically updates their stocks of spare parts to the Sparesfinder.com Web database.

Viewing rights for the information can be restricted so that only the parent company's world-wide sites can see the data, or unrestricted so that any other client can use the data, depending on the client's requirements.

Users looking for a spare part on the Web site use a simple text-based search engine, doing away with complex, inter-site cataloguing issues. 'We have been able to jump over this problem by using a fuzzy logic search engine,' says Herstell.

If a match can be found among the 34 million items currently listed, (with a combined value of US\$1 billion) clients are guaranteed the telephone number of one or more sites holding the part within 90 seconds.

'We simply provide a matching service... we don't take any part of the transaction, which could be in cash, a swap or a loan,' Mr Herstell says. 'We're working with one large client who expects to save £250 million, just by connecting their various site inventories together around the world. They expect to make this saving through avoiding purchasing, and by sites collaborating and sharing stock which will lead to sites carrying lower stock levels.'

To make their initial idea a reality, the co-founders worked out their business model in detail. This included offering the service globally via the Internet, and extending the marketing of the service internationally using franchise agreements. The model also included no administration, employees or large assets and no corporate presence outside the Internet.

The development of the database software, Web site and management system was contracted out to Hamilton-based Internet specialist CSE. It was a six-month job.

Today, Sparesfinder.com is purely a marketing company. 'The site provides a one-stop shop for industrial clients to optimise multi-site engineering inventories and to locate engineering spare parts at best cost,' says Herstell.

'Marketing to prospective users is easy. Clients are impressed just by showing them the system as it is. 'The idea was simple – an obviously sensible market proposition we could deliver efficiently using the Internet and technology, ending up with effectively a zero marginal-cost base.'

### Arts & Letters Daily

[www.cybereditions.com/aldaily/](http://www.cybereditions.com/aldaily/)

Back in 1998, an academic at the University of Canterbury, Denis Dutton, started an e-zine called Arts & Letters Daily ('Ideas, criticism, debate').

Denis Dutton explains the thinking behind his project: 'At this stage in its evolution the Web resembles a typical Australian gold field, with vast mountains of low-grade ore.

'Mining in both cases can be arduous. On the Internet it means sifting through endless streams of verbose, under-edited, often self-indulgent prose, frequently accompanied by tedious graphics that negate the "instant information" advantage of the Web.

'Precious nuggets of real content are there to be found, however, and it's the mission of Arts & Letters Daily to extract them for our readers.'

Arts & Letters Daily was free, and provided readers with a fascinating range of tidbits and articles from the Web on a range of topics, from literature to politics. Unlike similar US e-zines, such as Slate ([www.slate.com](http://www.slate.com)) or Salon ([www.salon.com](http://www.salon.com)), Dutton's project didn't involve a large team of people, advertising, or much graphic design. Nor was it actively marketed; instead, it attracted readers on the basis of its content, the old-fashioned way – by word of mouth. Readers tended to be people with an interest in the arts, and with a taste for irony and irreverence – well read, somewhat sceptical of hype. Dutton 'got out of bed early' every morning for a year to produce a new edition of his e-zine. As the months went by, the readership became increasingly international. When he received a substantial offer from a US company to buy Arts & Letters Daily, he accepted.

Dutton explains:

'As the Web has continued to grow, so must we. In November 1999 we agreed to be acquired by University Business, LLC (subsequently renamed Academic Partners, LLC), which publishes University Business and Lingua Franca magazines. This new partnership will provide the resources necessary to continue mining the ever-expanding Web.

'With more sifters in our crew and valuable technical support, we will continue to pan and select from among the most intellectually stimulating sites on the Internet, updating daily, and making the best of the Web available at a click.'

Today, Arts & Letters continues with Denis Dutton as Editor, and a team of people carrying on the good work within the original editorial guidelines.

## B2B EXCHANGES

What exactly do we mean when we say that B2B improves internal business processes and streamlines the relationships between businesses?

B2B exchanges are a new Internet-based trading model that pundits believe will bring huge efficiencies to B2B relationships. A B2B Exchange is a centralised on-line market-place where businesses can buy and sell goods and services from each other. One example is the trading of New Zealand's wholesale electricity, which takes place entirely electronically in an on-line exchange run by [www.m-co.co.nz](http://www.m-co.co.nz).

An example of an exchange dealing in

physical goods is the LIGNUS trading exchange. The exchange was set up in March 2000 by two Christchurch brothers, John and Rodney McVicar, who teamed up with Cardinal Enterprise Systems to develop a global electronic trading portal for the timber industry. The McVicar family has been in the timber industry for four generations and the brothers left the family company, McVicar Timber Group, to establish Lignus Corporation.

The Timber Industry Federation is right behind the LIGNUS portal. According to Chief Executive Wayne Coffey, the Federation exists

to promote more efficient business, 'and this site will do that.'

For more information, take a look at the

LIGNUS site, and note its distinctive features. It also covers the basics well, being simple to navigate, easy to use, and secure.

### The LIGNUS trading exchange

[www.lignus.co.nz](http://www.lignus.co.nz)

LIGNUS is a neutral trading exchange for logs and timber. It enables buyers and sellers to negotiate and directly transact with one another through its marketplace. The LIGNUS exchange is leading the way in bringing the competitive advantages of e-commerce to the wood industry.

As a neutral, negotiation-based trading exchange, LIGNUS serves both buyers and sellers. All members can trade faster and easier, across town or across the world. Missed phone calls and faxes, and the double-handling of information are eliminated. Fewer errors, less paperwork, and faster transactions mean reduced costs, tighter inventory controls, and more time to focus on business.

Membership is open only to approved wood industry organisations, and is free. There are no set-up fees, and no licenses. A 1 per cent transaction fee is charged to the seller; while buyers pay no fees. All members of LIGNUS are security- and credit-checked to protect other members of the trading community.

LIGNUS is accessed by individual members through their own private window. It enables the detailed specification of product and terms, facilitates negotiations between trading members, enables binding transactions to be formed, issues invoices and purchase orders, and then stores all historical information on the trade in the members' private areas.

LIGNUS does not own, buy, or sell any products itself; it simply provides a secure trading exchange for buyers and sellers. It eliminates the barriers of time, distance, and market knowledge to enable smooth business trading in solid timber, logs, panel, plywood, veneer, and chip. LIGNUS members include forest owners who sell logs, saw-millers who buy logs and sell timber, panel manufacturers and veneer mills who buy logs, industry brokers and traders, wholesalers, and retailers. Members trade both domestically and internationally on LIGNUS.

LIGNUS was founded on three important principles: neutrality, functionality, and relationships. These guiding principles ensure that traders on the exchange remain in control. **neutrality** LIGNUS is a completely neutral and independent organisation formed to operate a global exchange for professionals in the wood industry. Neutrality is vital to the successful operation of any trading exchange. Buyers and sellers must be able to come together in a fair and impartial environment to do business. Members must be treated equally whether they are buying or selling. Neutrality is critical to general security and ensuring that commercially-sensitive information is kept confidential at all times.

**functionality** LIGNUS uses state-of-the-art software to provide its members with the most sophisticated and secure electronic exchange available today. All organisations have different business processes – but traders shouldn't have to change these to operate on-line. LIGNUS members are able to transfer their present trading practices to an easy to use, efficient electronic environment. Members make contact, negotiate, and conclude binding agreements with other members based on their own product specifications, price, and terms and conditions. LIGNUS does not make the rules. Members choose which currency they want to deal in, what the price will be, what the terms will be, and most importantly, who they want to do business with.

**relationships** The wood industry succeeds by virtue of well-developed and valuable relationships that are based on trust and quality. The ability to maintain and service existing

relationships is as important as the ability to forge new relationships. LIGNUS puts the control firmly in the hands of its members, who choose whom they trade with, who sees their offers, whom they negotiate with, and whether they remain anonymous. LIGNUS gives traders the flexibility to operate different pricing strategies and control how they leverage their existing relationships.

Using LIGNUS, traders can:

- offer to sell a product for a particular price or under certain terms and conditions
- make an offer to buy a product and specify what price they want to pay
- search a database of products for sale
- search a database of products wanted
- specify what type of offers they are interested in
- directly receive offers that match their interest profile
- negotiate the price and terms and conditions they want, and
- conclude a contractually-binding deal.

For buyers, LIGNUS helps optimise purchasing decisions, and reduces transaction time and cost. Buyers use LIGNUS to increase their choice of suppliers, discover new products and negotiate the best prices.

For sellers, LIGNUS makes selling logs and lumber easier, cost-effective, and efficient, giving instant access to a whole new group of qualified customers. Sellers use LIGNUS to reduce their cost of sales, and forward sell to optimise production planning, optimise purchasing and production decisions, and reduce inventory.

For international traders, LIGNUS brings the power of global communication to the desktop, instantaneously, across countries and time zones. LIGNUS is a 24-hours a day, 7 days a week, 365 days a year managed electronic environment.

LIGNUS will increase traders' market knowledge, lower the cost of entering new markets, and create opportunities for new and profitable business relationships. Traders don't have to worry about technology specifications, expensive hardware or software investment, or specialist IT skills.



# PART 3: IMPLEMENTATION

## GETTING STARTED

### Be a user first

The best preparation for e-commerce is to become an active Internet user.

These days you can get a dial-up 'all you can eat' Internet connection for less than \$25.00 a month. If your computer is not equipped with a modem, you will need to buy one – ask your computer supplier. If you've recently bought an iMac or iBook, you have everything you need (the 'i' stands for 'Internet-enabled'). If you use Windows on a PC, you probably have all the software you need, but if not, your Internet Service Provider will supply you with browser software.

For a comprehensive list of Internet Service Providers and other Internet Services look under 'Internet' on the [www.accessnz.co.nz](http://www.accessnz.co.nz) directory. If you want to compare the various ISPs in terms of the services they offer and the fees they charge, look at the Consumer Web site, which provides a comprehensive comparison ([www.consumer.co.nz](http://www.consumer.co.nz)).

Start *using* the Internet. Take a course (most night-schools offer courses) or buy one of the many recently published Internet books and magazines available (don't rely on old information – it's probably out of date). Ask your suppliers, customers, associates, and friends for their e-mail addresses, and start using e-mail to communicate. Don't forget to check your e-mail frequently (at least every day) – people who communicate by e-mail expect a quick response.

Look for the Web sites of companies in your industry sector or those of your suppliers. While you're there, look for information that is of personal interest to you. It's easy to assess what makes a successful site (or product, or service) when you're on familiar territory. Just as in the real world, you'll quickly learn to be discriminating in cyberspace.

Many people find that when first using the Internet they are overwhelmed by the wealth of material available. Others are less impressed than they expected to be. Persevere. You can be sure that no matter

what your business or personal interest, there is something of direct relevance to you – usually the problem is simply finding it.

### Searching

Unfortunately the Internet is not like a library where everything is precisely indexed and easy to find. There are, however, search sites (or search engines) that you can use to help you find things. These sites are commonly known as 'portals' – which simply describes their function as an entry point into an array of Internet content.

To find out about search engines, how they work, what they cover, and tips for using them, go to Search Engine Watch [www.searchenginewatch.com](http://www.searchenginewatch.com). In the meantime, the following search tools will get you started:

- For New Zealand information, try: the Te Puna Web Directory [tepuna.natlib.govt.nz/web\\_directory](http://tepuna.natlib.govt.nz/web_directory) Access New Zealand [www.accessnz.co.nz/](http://www.accessnz.co.nz/) Search NZ [www.searchnz.co.nz/](http://www.searchnz.co.nz/)
- For access to New Zealand Government Web sites go to [www.govt.nz](http://www.govt.nz)
- For an international directory of Web sites try [www.yahoo.com](http://www.yahoo.com)
- For an index of Web pages try [www.altavista.com](http://www.altavista.com)

Later, when you have a Web site of your own, you will need to list your site with these services, so that other people can find you. See below for more information.

Once you have a basic understanding of e-mail and have found your way round the Web, try buying something on-line – a book, a CD, or other merchandise. See if any of your usual suppliers have implemented Web-based e-commerce, and try ordering some supplies on-line.

### Strategy

Once you have a degree of familiarity about how it all works, you are in a position to start thinking about how it can support your business.

As we noted in Part 1, at one level e-commerce is about logistics. But at another

level e-commerce is about business strategy. It may sound fancy, but 'strategy' is all about where you're going with your business and how you intend to get there.

### Asking the right questions

Here are some broad questions to get you started. If you can't answer them that indicates you need to do some more work. Strategy is a team effort, so involve your people in the process, and don't forget to talk to key customers and suppliers as well.

- What distinguishes you from your competitors?
- What is your 'point of difference', as Simon Barnett of OBO puts it?
- What makes your customers come back to you?
- What's happening in your industry? What are the key drivers?
- What is most important to your customers?
- How do you see your business in the future?
- What drives the creation of value in your business today? Will it be the same tomorrow?

Then think about your business processes:

- How does the supply chain work? Draw it as a diagram.
- Are there any bottlenecks? Where? What are the critical ones?
- Which internal processes could be streamlined?
- Could you do things differently, e.g. online, and save time or money?
- What effect would this have on your suppliers and customers? (If you don't know, you should ask.)
- Are there opportunities to collaborate with key suppliers?
- What about export or new market opportunities?

You may have the money to hire a consultant to help you with some of this. One way to find a consultant is to use the *Small Business Assistance Directory 2000*, published by Industry New Zealand and available from

BIZInfo, (0800 424 946, or [www.bizinfo.co.nz](http://www.bizinfo.co.nz)). Alternatively, consult the Institute of Management Consultants, which also publishes a useful directory.

A good introductory textbook on business strategy will give you the tools to help organise your thinking processes.<sup>1</sup> Unfortunately, no textbook can answer the questions for you – but it will tell you what to consider as part of your strategic planning process.

### The unchanging fundamentals

Electronic commerce doesn't change the basics of running a good business. If you want to be successful the following are still crucial:

- start with a business plan and a marketing plan
- make yourself known
- make and deliver the product, or perform the service
- be aware of and meet your customers' expectations
- get paid
- fund the business and pay the bills
- run the business efficiently, and
- plan for the future.

### What's different?

But e-commerce does throw some important new ingredients into the mix. Depending on how you implement your e-commerce strategy, some or all of these may be important:

- the ability to capture customer data, making it easier to market directly to particular segments
- customising products or services for individuals
- the potential for direct connection between maker and end-user (also known as disintermediation, or cutting out the middle-men)
- ease of customer comparisons – on the Internet, the competition is but a click away
- speed and immediacy of customer ordering

<sup>1</sup> One such is Johnson and Scholes, *Exploring Corporate Strategy: text and cases, 4 ed*, Prentice Hall, 1997.

- economy of maintaining and delivering product information
- easy 24 hour 7 days a week (24 x 7) availability of catalogues, data, prices, and ordering
- tapping into global communities of interest
- difference in legal régimes
- lower (and falling) transaction costs, and
- electronic delivery of some products and services (such as publications, software, music, video, translation services, consulting and banking).

## GETTING INTO IT

### Timing and scale

As with all business decisions, there will be an optimum time for your business to get into e-commerce based on an analysis of the costs involved and the benefits. Considerations of scale are crucial as well.

The specific use you make of the Internet in your business will depend on the kind of business you have and what you want to achieve. Implementing a sophisticated integrated system may suit your business, but smart use of the Internet as a research, direct marketing, and communications tool can be very effective as well. Recall Talbot Plastics (Part 2).

### Level 1: Using e-mail

Why use e-mail? At much less than a cent per message, e-mail is quicker and far cheaper than using a fax machine (or post or courier services), and much more flexible. It gives you the facility to communicate and exchange material with suppliers, customers, partners, and colleagues. You can attach text or spreadsheet files such as orders, product specifications, quotes, costings, or promotional information. You can also attach photographs and even short sound and video clips.

Already over 60 per cent of small firms and 80 per cent of medium-sized firms are using e-mail, not to mention over a million individual New Zealanders, so even if you

don't want to communicate with others via e-mail, they want to communicate with you.

It is surprising how many people forget to include alternative contact information in their e-mails. Always include a postal address, telephone numbers, and your Web site address (if you have one) so recipients can contact you by other means.

With e-mail you need to protect against viruses. You can't ignore the problem. A straight e-mail message is simply text, and cannot contain a virus. But attachments to e-mails *can* contain viruses. In particular, if you receive an executable programme as an attachment (a file ending in .exe) don't open it! Talk to your computer advisors about what to watch out for. They will also suggest anti-virus software and protocols to use. As a rule, you should always virus-check attachments to e-mails before opening them.

You should always create a daily back-up copy of crucial business data, just in case.

### Level 2: Using the Internet to research information

More than half of New Zealand's small and medium-sized businesses already use the Internet for research and information gathering. This might be for market intelligence (checking out what their competitors are doing), keeping up with industry news, doing some background research for a project, sourcing products and services, financial information, or identifying potential customers.

Although there is a huge amount of information on the Internet, don't be fooled into thinking everything is on-line. Most authoritative information is still in paper form, so don't forget about your local library. But you are most likely to find relevant information on-line if it is of recent origin.

As an example of how Internet research can work, a small surveying company wanted to find out about non-destructive testing techniques. A search of the Te Puna Web Directory for 'non destructive testing' turned up the New Zealand Non Destructive Testing Association Web page ([www.winzurf.co.nz/ndta/index.htm](http://www.winzurf.co.nz/ndta/index.htm)). It turned

out that the person who ran the association and the surveying firm were situated less than 30-minutes drive from each other.

Webdrive ([www.webdrive.co.nz](http://www.webdrive.co.nz)) is an innovative Web hosting company started by two guys in their early twenties. When asked who they had consulted to find out about their tax obligations, they answered, 'Nobody. We just looked up the IRD Web site.' (High praise indeed for [www.ird.govt.nz](http://www.ird.govt.nz))

### Level 3: Ordering on-line and using on-line services

You may not have your own Web site, but you can still be an active user of e-commerce. Over 30 per cent of small and medium-sized businesses are ordering goods and services on-line, and a similar proportion use Internet banking services.

The range of goods and services that can be bought on-line is increasing daily. A good place to start might be ordering office supplies. Check whether your suppliers have e-commerce enabled Web sites, as it may be possible to start dealing with them electronically.

There is a growing range of other on-line services. Investors can benefit from share market information, news, and discussion on [www.sharechat.co.nz](http://www.sharechat.co.nz) or [www.stockwatch.co.nz](http://www.stockwatch.co.nz). A number of share brokers also offer on-line share trading – great for doing those day trades during office hours!

Try an on-line recruitment agency such as [www.monster.co.nz](http://www.monster.co.nz) or [www.nzjobs.co.nz](http://www.nzjobs.co.nz) to find new staff.

See also B2B Exchanges below.

### Level 4.1: A 'brochure ware' Web site

Why do you need a Web site? Because many people now expect companies to have one. They want to be able to check out your business and the products and services you offer from their office or home.

More than half of small and medium-sized businesses and around 80 per cent of large business use the Internet for information gathering. If you are not on-line, they won't find you.

A business Web site that just contains

information is typically called 'brochure ware'. At its simplest it may only be three or four pages containing a company profile, some information about products and services, and contact information, including physical and postal addresses, telephone and fax numbers, and an e-mail address.

Make the contact information easy to find, preferably on the opening page. Many people now look up Web sites to find phone numbers, and it is surprising how many Web sites hide such information away or forget to include it at all.

A brochure ware site such as this can be put up at minimal cost, and is low maintenance. But don't forget to update the site if any of the information changes.

The makers of Zoodoo compost have a great brochure ware site at [www.zoodoo.co.nz](http://www.zoodoo.co.nz) – simple, but effective.

### Level 4.2: Web site with on-line catalogue

You can upgrade your brochure-ware site by adding an on-line catalogue, as Servotech has done ([www.servotech.co.nz](http://www.servotech.co.nz)). This is simply an on-line version of a paper-based catalogue. The advantage is that you can keep the on-line catalogue up to date without having the expense of reprinting the whole thing. If the majority of your customers are businesses that purchase on credit using a purchase order number, then an on-line catalogue may be as much as you need.

### Level 4.3: A Web site with on-line ordering

You may decide that you want to add a 'shopping cart' function to your site. Shopping Cart software allows your customers to compile and submit an order on-line. Products are selected and 'placed' in a graphic of a shopping cart. When complete, the whole order is submitted, together with payment details, typically a credit card number.

You can confirm that the order has been received via e-mail, while the order itself – along with payment – is fulfilled through established off-line procedures.

There is a range of shopping cart software available, including some excellent shareware

programmes, so shopping cart functionality can be added without spending a fortune. There are Web design companies that can deliver sites for \$2000 all up, with small catalogues and on-line ordering facilities which enable credit card details to be taken. However, a large site with high security will of course cost substantially more. Some of the larger Internet Service Providers like Xtra and Clear Net offer turnkey Web sites with this kind of functionality.

#### Level 4.4: A transactional Web site.

A transactional Web site covers the whole process, from product or service selection, through ordering and confirmation of delivery arrangements, to real-time on-line credit card payment.

'Real-time credit card payments' mean that when the customer submits their credit card details, the transaction is passed through to the bank and authorised (or declined) immediately, just like an EFTPOS transaction. In effect you are integrating your Web site into the banking system. (See 'Getting Paid' on page 27 for important information about on-line credit card transactions.)

Examples of such products are BNZ's Buyline ([bnz.co.nz](http://bnz.co.nz) – look for the e-commerce link), and ASB Bank's Access On-line ([www.asb.co.nz](http://www.asb.co.nz) – again, look for the e-commerce link).

These products can be bought directly, or may be available through your Internet Service Provider. They are relatively expensive solutions, though, and you will have to decide whether the orders you expect justify the cost.

Mp3.net.nz is an example of a site with on-line real-time credit card payments. Mp3.net.nz sells New Zealand music in MP3 format, which can be downloaded and played on your computer or on an MP3 player. With this kind of digital product that is both bought and delivered via the Internet, real-time credit card payment is essential, because the customer expects to be able to download the goods immediately on submitting the order.

#### Level 4.5: A Web site with customised information

While providing information about products and having on-line ordering is important, receiving orders is one of the less complicated and time-consuming business processes.

A more time-consuming task is customer service, particularly dealing with customer queries. Information about order status and providing invoices and other data on-line via a password protected section of the Web site has been shown to cut down telephone and written queries dramatically. Customers appreciate the ability to be able to check such information any time they want.

In researching this guide we have heard of companies implementing this facility on their Web site first in preference to having on-line ordering, because of the convenience for their customers and the cost-savings involved.

A twist on this facility is the Kiwi Dairies site [www.fencepost.com](http://www.fencepost.com). Dairy farmers of course are suppliers to Kiwi Dairies. To help their suppliers Kiwi Dairies have made daily quality and production information for each farm available on-line via Fencepost.com.

#### Level 5: The fully integrated e-commerce solution

Ultimately, IT can be integrated into all your business activities. This will have a significant impact on the efficiency of your business and its ability to compete. The following is a description of what an integrated e-commerce solution might mean.

The Internet is a communication tool that enables you to get your products to a wider range of customers, even globally.

To make trading over the Internet and linking into the world of e-commerce easier you need to have a good core business system.

An ordering process is essential for B2B trading. This assumes that you have a product file with an up to date inventory on product that is available. Trading partners will want to be able to go to your product file to make enquiries (not unlike telephone banking, but using the Internet). You need to

be able to generate an invoice and collect payment electronically. Purchasers of physical products will also want to know about shipping times.

The order is often considered to be the heart of a business. Company activities that support the ordering process should be linked or integrated. Back-end processes need to be integrated with the front processes and then to the accounting systems. In an e-tailing situation, if the sales order system is linked to the inventory control system, an automated ordering system can be used to order new supplies – that is, when you run low on something, a new order is generated and despatched automatically.

The inventory control needs to be integrated to the product file. This is the area to which trading partners will want to make enquiries. When these systems are in place the next move is to integrate the payment and the shipping information.

### B2B Exchanges

B2B exchanges are on-line trading ‘spaces’ provided by a neutral party where many businesses can trade goods and services electronically with each other at a dynamic price.<sup>2</sup> New Zealand’s biggest B2B Exchange is the wholesale electricity market, run by m-co.co.nz and worth a billion dollars annually.

For a detailed description of a B2B exchange see the Lignus.co.nz case study in Part 2.

### Decisions, decisions

The scale of e-commerce you choose will depend on the size of your business and what you are trying to achieve. Let’s look at four examples.

Renaissance was already a mature business and as a computer products distributor was operating in the B2B market. They went into e-commerce to reduce the cost of transactions. The aim was not so much to attract new customers, but to service existing customers more effectively and to eliminate costs. E-commerce has also enabled them to more effectively manage in a dynamic pricing environment. Renaissance went into

e-commerce without fanfare, yet due to an excellent system and implementation they are now turning over a million dollars a week electronically.

Talbot Plastics, on the other hand, has used the Internet to actively seek new customers and develop a thriving export market. The Internet has enabled them to overcome the barrier of distance and build up trust and working relationships with customers on the other side of the world.

International Cars Direct have used the Internet to add new value to their business by allowing their customers to specify the kind of car they want and the price, and then buying the car at auction in Japan. In effect, the Internet has enabled them to provide a customised service in second-hand Japanese import cars.

Cranium.co.nz operates a B2C site. Their success is in servicing a global niche consumer market for a particular genre of music. They also add value by using their Web site to provide up to date news and information, thus making them the centre of a global community of interest.

## BUILDING YOUR WEB SITE

### Getting your Web site hosted

You don’t need to register your own domain name in order to have an email address and Web site. Most Internet Service Providers (ISPs) offer their clients ‘free Web page hosting’. (This means that your Web page can be kept on one of their computers for free.) In that case your address would use the domain name of the ISP, and be along these lines: [www.yourisp.co.nz/yourcompanyname](http://www.yourisp.co.nz/yourcompanyname) However, if you want a Web site address like this:

[www.yourcompanyname.com](http://www.yourcompanyname.com) or

[www.yourcompanyname.co.nz](http://www.yourcompanyname.co.nz)

(we’ll explain the difference in a minute) you will have to register your company name as a domain name.

<sup>2</sup> Sculley, Arthur B. & W. William A. Woods, B2B Exchanges, ISI Publications, 1999.

### Registering your domain name

A domain name is the name that is used in the address of a Web site (and also in an e-mail address). It's a good idea to register your own domain name, based on your company name, for your business. All the companies we've mentioned in this guide have their own domain names (such as [cranium.co.nz](http://cranium.co.nz) or [servotech.co.nz](http://servotech.co.nz)).

Your Web designer will be able to tell you how to register your domain name, or your Internet Service Provider will do it for you. If you want to do it yourself, we explain how below. But first, you need to think about where your target markets are located.

If the purpose of your Web site is to target international markets, particularly the United States, you should consider getting a generic domain name. This does not use a country code such as .nz, and would be in the form [www.companyname.com](http://www.companyname.com). Although Talbot Plastics has a pretty low-key Web site, they do have a generic domain name ([www.talbotplastics.com](http://www.talbotplastics.com)), and as a consequence most of their customers don't regard them as 'foreign' or 'distant', which is good for business.

### Domain name administration

The Internet Society of New Zealand ([www.isocnz.org.nz](http://www.isocnz.org.nz)) administers the .nz Register through its subsidiary, the New Zealand Internet Registry Ltd. This company trades under the name of Domainz, and Domainz therefore has delegated responsibility for management of the New Zealand (.nz) domain name space ([www.domainz.net.nz](http://www.domainz.net.nz)).

Registering your domain name will cost under NZ\$100 for a year (if it is a .nz name), and less than US\$100 if it is a generic (e.g. .com) name. You can also choose to register the name for periods longer than one year.

The listing of names within any domain in the .nz domain space is carried out on a 'first come, first served' basis. This means that Domainz does not determine whether an applicant has a legitimate right to the name, nor does it play any role in resolving disputes that may arise over registration issues.

You can use the Domainz site to check whether the domain name you are thinking of using is still available. It may already have been taken. But if you are planning to use a generic (.com) name, you will find it more convenient to check its availability on [www.register.com](http://www.register.com), the US equivalent of Domainz. (You can also register a .nz name on [register.com](http://register.com), and they will forward the information to Domainz.)

It can be quite hard to find an appropriate .com name, since so many names have been taken, so you will probably have to exercise some ingenuity. It's much easier to find a .nz name.

For more information on domain name issues and the law in New Zealand, see [www.ecommerce.govt.nz](http://www.ecommerce.govt.nz)

### Developing your Web site

You can create your Web site yourself, but you should only contemplate it if you are computer literate, have some graphic design skills, and are willing to spend the time required to do it properly. Remember that your business image is at stake. The day of the amateur business Web site has passed with the twentieth century.

In most cases you will have to hire someone to do it for you. Fortunately Web page development and design is a maturing business, so prices are coming down, and skill levels are going up. But beware – there are still cowboys out there. Write a clear brief and get several quotes before choosing a Web designer. Make sure you see examples of their work.

If you are planning anything more than a simple brochure-type Web site, you should almost certainly get someone else to do it for you.

If your business model requires a fully-enabled e-commerce site, you will certainly need expert help.

### Web site design

Web site design can trip up the unwary. The Web is a new and unique medium. Many of the established practices in the design of print-based publications do not apply.

Legibility is still important, but legibility on screen relies on different factors. A good graphic designer won't have all the skills needed for Web design unless they have done some additional training.

The medium of the Web makes it possible to use a lot of cool features, such as animation, but there are traps. Such things may make your site look great, but make it much slower to load or harder to use, which will turn people away (and result in you losing customers). The old design maxim, 'less is more', still applies.

### Usability

The more usable your Web site is, the more value it will add to your business. Great usability maximises your sales.

As Web design expert Jacob Neilson says, 'Users spend most of their time on *other* sites. This means that users prefer your site to work the same way as all the other sites they already know.' (see [www.useit.com/alertbox/20000723.html](http://www.useit.com/alertbox/20000723.html))

Like all designers, Web designers like to show off their skills. But the latest Web gizmo probably won't enhance your business. Don't be talked into some radical new feature unless it serves a purpose. If you are selling music, for instance, incorporating music clips makes sense. Otherwise, keep it simple. Yahoo.com is the most visited Web site in the world, and has one of the simplest and most consistent designs.

### Testing

Ensure that your Web designer carries out testing using a range of platforms and browsers.

Most people use either Microsoft Internet Explorer or Netscape as their Web browser. It is important that your Web site works well with both, and also with the less well-known browsers that are around.

As well, get some actual people to do user testing as a reality check. Or as Jacob Neilson says: 'people do things in odd and unexpected ways, so even the most carefully planned project will learn from usability testing.' (See [www.useit.com/alertbox/991003.html](http://www.useit.com/alertbox/991003.html))

For the best tips on Web design we strongly recommend that you read Jacob Neilson's article *Ten Good Deeds in Web Design* available at [www.useit.com/alertbox/991003.html](http://www.useit.com/alertbox/991003.html). This article also contains links to Neilson's original 1996 article *Top Ten Mistakes in Web Design*, which is still relevant today.

### Writing for the Web

Like designing for the Web, writing for the Web also requires a new set of skills. The world authority on writing for the Web is (of course) a New Zealander – Rachel McAlpine. We recommend that you read her book *Web Word Wizardry*.

A word of caution. Writing, like design, is a specialist skill. It's a good idea to hire a professional writer to write the text for your site. If you want to attempt it yourself, make sure you hire an editor (or get your Web designer to do so) to get it just right.

McAlpine's book contains information about Web writing and Web design, including tips on how to get the best results out of search engines so that potential customers can find you.

McAlpine's Web site [www.writing.co.nz](http://www.writing.co.nz) also contains some very useful free resources. While you are there, notice the clean and simple design.

We have compiled some more resources about Web site design at [www.ecommerce.govt.nz](http://www.ecommerce.govt.nz)

## MARKETING YOUR WEB SITE

'The Web is a great marketing tool,' so the hype goes. 'Build it and they will come.' Unfortunately, it is not nearly so simple.

Your Web site can be used to market your business, by providing a shop window on the Web that can be accessed by everyone else connected in the world. But in order for anyone to access your site, they have to know about it. How do you tell your potential customers that your site exists, among the millions of other sites available?

Marketing. In order for your Web site to market your business, you have to make it your business to market your Web site.

Further information on Web marketing is available at [www.ecommerce.govt.nz/](http://www.ecommerce.govt.nz/)

Whatever the purpose of your Web site, it is essential to include your Web site address on every piece of literature associated with your business – business cards, letterhead, ads, brochures, catalogues, t-shirts, business vehicles, sandwich boards, personal tattoos. Don't forget to include your Web site address with every e-mail you send.

### But do you *need* to market your Web site?

Yes. Your Web site is both a business communication and transaction tool, and a marketing tool.

If its primary purpose is to facilitate electronic dealings with established customers, then the marketing can be minimal. All you have to do is let your customers know about it and encourage them to use it. Two of the largest e-commerce Web sites in New Zealand by value of transactions ([www.renaissance.co.nz](http://www.renaissance.co.nz) and [m-co.co.nz](http://m-co.co.nz)) have a low profile for this very reason.

On the other hand, a business operating a B2C (or e-tailing) Web site must do substantial marketing to let as many people as possible know of the existence of their Web site. As always, identify whether you are aiming at a mass or niche market, and tailor your efforts accordingly. For instance [monster.co.nz](http://monster.co.nz) is clearly aiming at a mass market, hence the television advertising. But [cranium.co.nz](http://cranium.co.nz) is aiming at a niche market, so their approach is along the lines of viral marketing (see below).

- What kind of visitor do you want to attract?
- What are the characteristics of your target market? (List them.)
- If you have already collected data on your customers, you can make reference to that here as well. (If you aren't sure, take another look at the Talbot Plastics case study on page 10 of this Guide. Notice the description of Talbot's customers. Though they operate in a range of industries and

they are spread around the world, they have some characteristics in common.)

- What characteristics do *your* customers share?

The characteristics of your target market will determine your marketing approach. For instance, Talbot Plastics doesn't wait for its customers to come knocking, but actively seeks them out and approaches likely prospects directly.

### List on the search engines

Whatever the purpose of your Web site, you should ensure it is listed on the major Internet search engines.

Search engine traffic obeys the 80:20 rule. Most search queries are made on the most popular search engines. At time of writing these are:

- Yahoo.com
- AltaVista.com
- Lycos.com
- Infoseek.com
- Excite.com
- Google.com

Focus on getting highly ranked with these, and you can safely ignore the others. Rachel McAlpine's book, *Web Word Wizardry*, is a useful resource for learning about the tricks of listing with the search engines.

You should also list on the New Zealand search sites such as Access New Zealand [www.accessnz.co.nz](http://www.accessnz.co.nz) and Search NZ [www.searchnz.co.nz](http://www.searchnz.co.nz)

A full list of these New Zealand sites is available at: [tepuna.natlib.govt.nz/web\\_directory/NZ/internetdirs.htm](http://tepuna.natlib.govt.nz/web_directory/NZ/internetdirs.htm)

### Low-cost Web marketing techniques (viral marketing)

The Web works through the ability of Web pages to contain links to other Web pages. The best way to increase your visibility on the Web is to utilise the potential of linking. This is known as 'viral marketing'. Viral marketing includes such techniques as reciprocal linking, Web rings, and utilising Internet-based

communities of interest. While we don't have space here to explain these techniques in detail, we have provided more detailed information on-line at [www.ecommerce.govt.nz](http://www.ecommerce.govt.nz)

## GETTING PAID

If you are dealing mainly with familiar customers or suppliers, then you will probably continue to supply and accept purchase order numbers in the usual way, and arrange for payment at the end of the month. The only difference is that you might send or receive the order electronically. This section is aimed at those who will be dealing in smaller credit card transactions.

The hype surrounding e-commerce suggests that all you have to do is set up a Web site, install shopping cart software and credit card processing software, and the money rolls in. But taking money on the Internet is not as simple as that. Many new or small e-commerce ventures have had problems.

At the time of writing the credit-card payment systems for Web sites offered by New Zealand banks can only accept payment in New Zealand dollars. That is, they do not offer multi-currency billing. In fact, in most countries in the world, including Australia, credit card companies only accept payment in the currency of the country where the merchant is located. That means that if I buy goods from a US Web site I pay the US dollar price, if I buy from Australia, I pay in Australian dollars, if I buy in the UK I pay in pounds sterling, and if an American buys from a New Zealand Web site, they *must* pay in New Zealand dollars.

New Zealand businesses wishing to sell via the Internet are at a disadvantage, as they are forced to charge in New Zealand dollars, even when the target market is the United States. An approximate US-dollar price can be stated on the Web site, but currency fluctuations can cause the cost appearing on the buyer's credit card statement to be different from that quoted on the Web site. If the currency fluctuates in the wrong direction

the customer will feel misled. The result is extra work for New Zealand businesses and the risk of tarnished reputations.

To make matters worse, many Americans are wary of unfamiliar currencies, and take their business elsewhere. On the Internet, the competition is but a click away. Not many people outside New Zealand are familiar with the value of the New Zealand dollar – in other words, they may not know what good value they are getting!

This problem is not insurmountable.

A partial solution is to link to an automatic currency converter – of which there are a number on the Web. In this way the buyer can convert the NZ dollar price in their own currency. In addition, it is important to warn your prospective customers of the possible impact of currency fluctuations.

A better solution for large e-commerce sites whose main market is the US is to base the site in the US. Hosting in the US can be arranged, though it has its problems. This is probably not an option for most small New Zealand businesses.

Look at other New Zealand Web sites to see how they have handled the problem.

The reason that banks do not yet offer multi-currency credit card billing facilities is that there simply wasn't a demand for them until recently. It is likely that the banks will offer such facilities in the near future so it is worth asking your bank about their plans.

In the meantime, WebFarm, a New Plymouth company, is filling the gap by reselling services from Worldpay, a UK company that offers a multi-currency credit card billing product. See [www.webfarm.co.nz](http://www.webfarm.co.nz) for details.

### Credit card charge-backs

The second big credit card problem for companies getting into e-commerce is charge-backs. When a person buys something on the Web using a credit card, it is classed as a 'card not present' transaction. Different rules apply to such transactions because of the higher risk of fraud. When the credit card number is submitted for authorisation, all the credit card company actually does is check whether there are available funds, and check whether there



is a block on the card (for instance, has it been reported as lost or stolen?). If the card passes both these tests, the transaction is authorised, and the money paid into your account in the usual way.

But with a 'card not present' transaction, the money is not truly yours yet, even though it is sitting in your account. There is a period of time (in some cases as long as 90 days) following completion of the transaction during which the transaction can be challenged. For instance, when the owner of the credit card receives the bill, they may deny having made the purchase. If the credit card company accepts the challenge, then they reimburse the customer, and *get the money back off you*, in which case you have lost both the goods and the money.

There are three lessons here.

- First of all, make sure you ask your bank about the rules that apply to credit card charge-backs.
- Secondly, don't regard the money as yours until it really is yours.
- Lastly, if you receive an unusually large order, make every effort to check the legitimacy of the person ordering. The bank may be able to do extra checks on the validity of the credit card for you. Be *extra* careful if you get a large order from a country with which you don't usually do business.

For more information on this and other credit card issues, go to [www.merchantworkz.com](http://www.merchantworkz.com)

A final issue about getting paid is that many customers are still hesitant to give their credit card details on-line. There are a number

of ways you can reassure them (see the sections on privacy and security elsewhere in this guide). Offer a range of payment options. Some people may be content to fax their credit card numbers, give them over the phone, or send them in two separate e-mails. Others may wish to send a cheque or pay cash at the time of delivery.

## BUILDING TRUST

### Security

One of the most common concerns people have about using the Internet for electronic commerce is security. As part of your planning for electronic commerce you should seek advice from your Web developer or computer consultant about security issues. Some of the issues are discussed here.

You can carry out e-commerce without funds transfer on the Internet. In this case, a banking system is set up to act as an intermediary, and the bank works in conjunction with the buyer and seller to notify them of funds transfers resulting from transactions. During this process the bank ensures the security of the information.

Don't neglect the basics because you rushed into transacting from your Web site. An insecure site, unreliable ordering software, and poorly thought-out order fulfilment will seriously undermine your business credibility.

People are often concerned about sending credit card information across the Internet. The problem is not so much information being intercepted as the security of the database on the site that holds the information. There is no record of any credit card information ever

### [www.tourtime.co.nz](http://www.tourtime.co.nz)

Tour Time NZ Ltd arranges travel and holidays. They don't take payment over the Internet because they lose so much in credit card commissions – for large parties, 5 per cent commission on each member of the party amounts to a healthy sum. Instead, they ask for an international bank transfer. The funds are moved from the customers' accounts to the business account and cleared within a couple of days. Payment details are set up via e-mail, by Tour Time providing their bank account number. This way Tour Time's customers do not need to supply their bank account number over the Internet, which offers them complete security.

having been intercepted in transit.

Nevertheless, if you are taking orders via your site or processing customer data you will want to consider encryption. This is a method of encoding data for secrecy, so that it can only be read by the recipient for whom it is intended. There are currently several solutions businesses can use to protect and authenticate electronic information. The encrypted message is scrambled so that its contents are kept secret. Only the recipient with the proper 'key' can decrypt the message.

Digital signatures can be used not only to identify the sender of information, but also to verify that the content of a message is accurate and authentic. A digital signature is therefore more than the electronic equivalent of a written signature. With the right software, placing a signature on a document or form can be as easy as clicking and typing in a password.

### System security

As the use of the Internet becomes more widespread, we keep hearing horror stories in the media about virus attacks on computer systems, and computer hackers accessing sensitive company data or maliciously changing the information on web sites. While these stories sound frightening, the risk of such attacks can be minimised if you implement some common-sense security measures.

Such measures need to be developed in tandem with the implementation of e-commerce systems, so that the integrity of your business's information and its systems are protected. This is especially so if your business has a permanent 'always on' connection to the Internet. Your security policy should ensure that your systems are carefully implemented to reduce the possibility of security loopholes. In addition, your internal systems may need to be protected by a 'firewall'. A firewall is a combination of hardware and software that protects computer networks from unwanted intrusions. Your computer supplier will be able to advise.

A second strand is to ensure that you and your staff are security conscious. This means ensuring that passwords are kept private and

that staff members' access to the system is appropriate to their needs. Most often your Internet Service Provider will host your Web site, rather than it being hosted in-house, and this is certainly one way to reduce the risk to your own business systems. But make sure you ask about the security measures your ISP has implemented to ensure that your data is protected.

For more information on security issues, including the safety of credit card information, encryption, and digital certificates, see [www.ecommerce.govt.nz](http://www.ecommerce.govt.nz)

### Web site privacy statements

It is likely that privacy will be one of the main concerns of visitors to your Web site. If you want to gather information, you'll need to show integrity about the way you collect and use it. To this end, all Web sites should contain a Web site privacy statement.

Our Privacy Act provides best practice in dealing with consumer and business information, and provides a competitive advantage to New Zealand businesses operating internationally, especially businesses selling on-line, where privacy considerations are particularly important. New Zealand businesses should highlight this fact on their Web sites.

To find out more about our Privacy law, check out the Privacy Commissioner's Web site at [www.privacy.org.nz](http://www.privacy.org.nz)

Further information on developing a Web site privacy statement is available at [www.ecommerce.govt.nz](http://www.ecommerce.govt.nz)

### Consumer protection

New Zealand's consumer protection laws and self-regulatory frameworks are technology-neutral. Provided they are dealing with a New Zealand based trader, New Zealand consumers have the same rights irrespective of whether the transaction is carried out electronically or by traditional means. Equally, New Zealand - based traders have the same obligations, whether on-line or off-line.

To help create greater trust in on-line shopping among consumers, the Ministry of Consumer Affairs has proposed a *Model Code*



*for Consumer Protection in Electronic Commerce*. The code shows how consumers, businesses, and Government can work together to ensure consumers' interests are met.

The code is designed to adapt to the New Zealand context the OECD Guidelines for Consumer Protection in the Context of Electronic Commerce, agreed to by the OECD in December 1999.

The model code is available at [www.consumer-ministry.govt.nz/dp\\_ecommerce\\_statusreport.htm](http://www.consumer-ministry.govt.nz/dp_ecommerce_statusreport.htm) and the OECD guidelines are available at [www.oecd.org/dsti/sti/it/consumer/](http://www.oecd.org/dsti/sti/it/consumer/) See also [www.ecommerce.govt.nz](http://www.ecommerce.govt.nz)

### Legal issues

Laws governing trade differ from country to country. The legal framework around e-commerce and the Internet is still evolving. Many national governments and broader bodies

such as the EU, OECD, and the UN are in the process of developing policies to support, manage, and control electronic trading.

A number of jurisdictions have passed legislation to enable paper-based legal requirements to be carried out electronically. New Zealand is also set to pass similar legislation in the form of the Electronic Transactions Bill.

For a quick guide to New Zealand law and e-commerce, see [www.bakerinfo.com/apec/nzapec.htm](http://www.bakerinfo.com/apec/nzapec.htm)

For a quick guide to the law and e-commerce in the 21 APEC economies (including the US, Canada, Australia and most of Asia), see [www.bakerinfo.com/apec/](http://www.bakerinfo.com/apec/)

For information about electronic commerce and taxation, contact the Inland Revenue Department, or visit [www.ird.govt.nz](http://www.ird.govt.nz)

For information on the Electronic Transactions Bill see [www.ecommerce.govt.nz](http://www.ecommerce.govt.nz)

# GLOSSARY

**ADSL (Asymmetric Digital Subscriber Line)**

A method of moving data over ordinary copper-wire phone lines at a speed much faster than an ordinary phone connection. *See also XDSL.*

**browser, Web browser**

A piece of software loaded on your computer that enables you to access and display Web pages and other Internet resources. Common Web browsers include Internet Explorer and Netscape.

**bandwidth**

How much stuff you can send through a connection. Usually measured in bits per second. A full page of English text is about 16,000 bits. A fast modem can move about 15,000 bits in one second.

**bit**

A unit of information, expressed as either 1 or 0 in binary notation.

**bps (bits per second, also known as baud)**

A measurement of how fast data is moved from one place to another. A 56 K modem can move 56,000 bits per second.

**broadband, broadband access**

Broadband access to the Internet means high speed access that is many times faster than an ordinary dial-up service, and which is typically always on (i.e. there is no need to dial up or 'connect' each time you want access).  
Examples: cable and ADSL.

**byte**

A set of bits that represent a single character. Usually there are 8 bits in a byte.

**cyberspace**

A term coined by William Gibson in his novel *Neuromancer*. The word is currently used to describe the virtual environment of the Internet.

**dial up**

Access to the Internet using a modem and an ordinary telephone line.

**domain name**

The unique name that identifies an Internet site.

**intranet**

A private network owned by a company or organisation. It uses the same kinds of software as you find on the public Internet, but there is no public access to the network.

**ISP (Internet Service Provider)**

An ISP sells access to the Internet to the public, rather as a telephone company sells access to the telephone network. An ISP may also offer a range of other services, including Web hosting, domain name registration, turnkey Web site solutions, Web design, and perhaps e-commerce solutions.

**portal**

A special Web site designed to provide access to a range of other Internet content and services. An example is Yahoo.com

**Web hosting**

A Web hosting company is a company that specialises in hosting Web sites for other companies on their computers. Typically an ISP also offers Web-hosting services.

**Web server**

A piece of software that stores Web pages ready for access by other computers.

**Web site**

A collection of Web pages belonging to a single organisation or individual, stored on a Web server.

**XDSL**

A method of moving data over ordinary copper-wire phone lines at a speed much faster than an ordinary phone connection. A version of this technology, ADSL, is available in a number of locations in New Zealand.

*Source: Matisse Enzer, Glossary of Internet Terms*

*For the full Internet glossary, see [www.matisse.net/files/glossary.html](http://www.matisse.net/files/glossary.html)*

# APPENDIX 1: WHAT EXACTLY IS THE INTERNET?

## A network of networks

The Internet is simply a big network of computers scattered all round the world, but linked to each other. Actually it's a network of networks – hence 'the Internet'.

A person in Morrinsville, say, using a computer with an Internet connection, can log on (connect to the Internet) and look at files stored on another Internet-connected computer anywhere in the world. Our hypothetical Morrinsville user can download files from other computers, that is, they can create a copy to use on their own computer without having to connect up through the Internet every time they want to use it.

The Morrinsville user can also interact with the files on other Internet-connected computers, by sending information back to them. That's what's happening when they are browsing the books catalogue on the Amazon.com site, and decide to place an order and send their credit card details to pay for it.

The Morrinsville user can create their own Web site. In broad terms a Web site is just a collection of files that they make available to other Internet users, by arranging for it to be 'hosted' – that is, made available to other users on an Internet-connected computer 24-hours a day.

Today there are over 80 Internet Service Providers in New Zealand, and the huge growth in Internet traffic, together with the growth in telecommunications generally, has been a major reason for the building of the new Southern Cross Cable to Australia and the United States. The Southern Cross Cable will significantly increase New Zealand's international connectivity.

In 2000, there are estimated to be 360 million Internet users, and they can be found all around the world.

## Many applications

From its beginnings in 1969 the Internet was designed as a network over which you could run many different applications at the same time using a variety of different telecommunications links.

In contrast, the phone system was

designed for a single application, that is, communication by voice. (Although today you can use the phone system for other purposes, such as sending a fax, or indeed connecting to the Internet, the phone system wasn't *designed* for those purposes, which is why dial-up connections to the Internet are so slow.)

The most common applications that are run on the Internet are:

- electronic mail, which allows you to send and receive electronic messages
- the World Wide Web, which facilitates easy 'point and click' navigation of text and graphics from millions of computers worldwide.

The Internet, however, is a true multimedia environment. As well as e-mail and the Web, it can be used for broadcasting both radio and video, for real-time chat both text-based and by audio, and for any number of business applications. In fact, the free availability of music on the Internet via what are known as MP3 files is causing major ructions in the multi-billion dollar music industry, because of copyright and other implications.

## The World Wide Web

The 'World Wide Web' is the most popular application of the Internet. The Web was born in 1991, developed at the CERN Physics Laboratory in Switzerland by Tim Berners-Lee. However, it took the launch in 1993 of Mosaic, the first graphical Web browser for Windows, for the Web to really take off.

A Web server is a computer with special software that stores Web pages and allows them to be accessed by other computers. In June 1993 there were 130 Web servers in the world. By July 2000 there were 17 million Web servers, serving up an estimated 2.1 billion unique Web pages. (See Hobbe's Internet Timeline: [info.isoc.org/guest/zakon/Internet/History/HIT.html](http://info.isoc.org/guest/zakon/Internet/History/HIT.html) and [www.cyveillance.com](http://www.cyveillance.com).) In fact, experts are divided about how many pages there are now – but we know it's a pretty big number, and growing rapidly.

## APPENDIX 2: INTERNET ACCESS

### What sort and how much?

Individuals and companies wanting Internet access services have a range of options available. They vary considerably in terms of service, quality, and price.

At one end of the range are a number of free dial-up Internet Service Providers. They provide a basic level of access at no cost.

For a company intending to engage in a substantial amount of e-commerce involving high bandwidth content, a specialised solution is required at the other end of the range. An example would be a dedicated leased line to company premises with a certain capacity (e.g. 20 Mbps) with the Web site professionally hosted.

The variables to consider are:

- price
- type of connection (dial-up, instant, dedicated)
- support service
- ancillary services available (Web site hosting, intranet/extranet provision, domain name services)
- download speed (the speed that information travels to you)
- upload speed (the speed of information sent by you).

The types of service available are listed below.

### Free dial-up Internet

There are several Internet Service Providers that provide a dial-up service to access the World Wide Web and e-mail for free. These operators in most cases charge for helpdesk support, cannot guarantee access at peak times, and do not provide Web site hosting. Speeds vary considerably, but may be slow at peak times. Most free ISPs are only available in major cities and provincial centres. A list of free ISPs is available at:

[www.netguide.co.nz/isp\\_directory/free\\_isp/free\\_isp.php3](http://www.netguide.co.nz/isp_directory/free_isp/free_isp.php3)

Note that free Web sites can be established through a number of overseas free Web site services such as Tripod ([www.tripod.lycos.com](http://www.tripod.lycos.com)) and Geocities ([geocities.yahoo.com/home/](http://geocities.yahoo.com/home/)). Typically such services do not allow commercial activity.

### Dial-up Internet

This is the most commonly used service for individuals, and for small businesses with e-mail and a Web site. A wide range of operators exist providing national and regional service, most offering Web site hosting (some included in the monthly access fee) and helpdesk services.

At the time of writing (October 2000), prices range from just over \$1 for an hour through to \$25 for unlimited monthly access. Access speeds will depend on the time of day and the landline to the exchange but will vary from 56 kbps-9.6 kbps download speeds (average speeds are usually between 36 and 14.4 kbps), with upload speeds typically half that rate.

The service is usually more reliable than free ISPs and it is possible for a small business to have a Web site and e-mail administered through a dial-up ISP, though it will not have a dedicated onsite connection.

A list of nationally available dial-up ISPs is available at:  
[www.netguide.co.nz/isp\\_directory/national\\_isp/nat\\_isp\\_dir.php3](http://www.netguide.co.nz/isp_directory/national_isp/nat_isp_dir.php3)

### ISDN: Integrated Services Digital Network.

ISDN allows a customer to have a 64kbps Internet circuit and telephone/fax line at once, or a dial-up connection at speeds of up to 128 kbps. This service is suitable for a business that may have a small number of users on-line at the same time or needs to transfer files of substantial size (such as graphics) which would be too slow over a dial-up connection. While many dial-up ISPs provide ISDN Internet access, a customer needs to have an ISDN line installed to the premises. Telecom and Clear provide ISDN lines. Pricing for the lines and the associated access services varies. Details are available from ISPs providing ISDN service, but as an example Telecom provides access for \$3 per hour for a 64 kbps connection (excluding the cost of the line).

### XDSL/cable modem:

While using different technologies, these two products deliver high speed Internet access on an 'instant connection' basis (no dial-up

required). The download speeds vary from 512 kbps-2 Mbps and upload speeds of 128-740 kbps.

The xDSL network connection is provided by Telecom through the Jetstream brand and is available in main cities and major provincial centres. Cable modem service connection is currently available in Wellington through Telstra Saturn.

Various ISPs retail connection services using both technologies. They are suitable for companies wanting a higher capacity data connection and can include a dedicated service. The Telecom and Telstra Saturn Web sites provide details of ISPs that retail Jetstream and cable modem services.

#### High-speed wireless/satellite:

High-speed wireless service provides essentially a similar service to xDSL and cable modem and is available through Walker Wireless, IHUG, Clear and other ISPs in a number of cities. Such connections can provide either high-speed download connections with a dial-up upload path or a dedicated high-speed two-way connection. The latter allows a business to have permanent connection for employees and to

host and manage Web sites on site. The cost of such service varies according to the bandwidth of the connection wanted and the level of service demanded by the customer.

Satellite services offer high-speed download connections nationwide for anyone who can access a dial-up connection (for uploads) of 9.6 kbps or more. It can provide a fast download service comparable to that of xDSL/cable modem and terrestrial wireless services. Web site hosting would still be provided off site, but satellite provides a high-speed option for business in rural and remote locations.

#### Dedicated connections:

While it is possible to get dedicated connections using xDSL, cable modems and wireless services, the highest level of service is to have a permanent leased data circuit. This enables a business to be able to maintain the highest level of on-line presence. Such a service requires leased circuits to be provided by a telecommunications carrier such as Telecom, Telstra Saturn or Clear, and pricing will vary according the capacity of such a circuit and the level of service required from the network operator.

## APPENDIX 3: WHERE TO GO FOR HELP

There's a small number of organisations that help specifically with e-commerce – you should check these out to see if they can help you.

Remember that e-commerce is just another way of doing business. You should be able to get help with e-commerce from any organisation providing help to businesses (and there are many). In particular, any course or information about marketing is incomplete if it doesn't include something about e-commerce.

Nevertheless, many providers of business help have yet to catch up with e-commerce and its implications. Regardless of who you ask for business advice, ask them about the opportunities for and implications of e-commerce in your business. If they are smart, they will be able to help, or at least be able to refer you to someone else who can. If not, then you will have reminded them that they need to up-skill themselves.

Any attempt to list every source of e-commerce help would be out of date immediately. What follows is more of a general checklist – some organisations you should check out in your town. This list is mainly oriented towards smaller and start-up businesses, on the assumption that a larger business would be more likely to employ a staff member or an outside consultant to help in this area.

### BIZ and BIZinfo

[[www.bizinfo.co.nz](http://www.bizinfo.co.nz)]

0800 4 BIZINFO (0800 424 946)

These services provide information and referral services, as well as courses and seminars on specific topics. There are 34 BIZ offices around the country, in all the main towns. Courses and seminars on e-commerce are offered in some centres – ask your local office what they have available.

The Enterprise Awards Scheme that BIZ administers for Industry New Zealand can help fund the employment of an e-commerce consultant.

### Sources of Capital Available to Small and Medium Enterprises 2000

Published by the Ministry of Economic Development, this publication is available on the Ministry's Web site at:  
[www.med.govt.nz/irdev/ind\\_dev/soucap2000/index.html](http://www.med.govt.nz/irdev/ind_dev/soucap2000/index.html)

### Electronic Commerce Web Site

[[www.ecommerce.govt.nz](http://www.ecommerce.govt.nz)]

This Web site contains links to government information about e-commerce from a number of departments, including information about tax, consumer issues, privacy, the legal environment and international initiatives.

It also contains an extensive list of links to information available on the Web to supplement this guide, including a link to the Industry NZ Web site.

### Electronic Business Association of New Zealand

[[www.ebanz.org.nz](http://www.ebanz.org.nz)]

EBANZ is an association that provides a meeting ground for end-users of e-business products and services in New Zealand, together with suppliers, consultants, Web developers and other e-business specialists. EBANZ is a good source of information about e-business in New Zealand and around the world.

### Internet Society of New Zealand

[[www.isocnz.org.nz](http://www.isocnz.org.nz)]

04 801 6256

ISOCNZ is a non-profit society established in 1995 to foster co-ordinated and co-operative development of the Internet in New Zealand. It also works to safeguard the Internet's philosophy of open and uncensored exchange of information.

ISOCNZ owns The NZ Internet Registry Ltd, which manages the .nz domain name space and trades as Domainz ([www.domainz.net.nz](http://www.domainz.net.nz)).

### Trade New Zealand (Tradenz)

[[www.tradenz.govt.nz](http://www.tradenz.govt.nz)]

0800 737 666

If you are (or are planning to be) an exporter, Tradenz will be able to help you. They have a

well-funded initiative aimed at increasing the e-commerce awareness and capability of New Zealand exporters. Tradenz has offices in Auckland, Wellington, Christchurch, Dunedin, Hamilton, Napier, Nelson, Palmerston North, and Tauranga.

#### **EAN New Zealand**

[[www.ean.co.nz](http://www.ean.co.nz)]

04 801 0833 Free: 0800 102 356

The purpose of EAN NZ is to assist industry to become more efficient and competitive by establishing a global multi-industry system of identification and communication based on internationally accepted and business led standards. EAN NZ supports this objective by focussing its resources in the areas of Marketing, Business Development and Support, Customer Services and Electronic Messaging.

#### **Technology New Zealand**

[[www.frst.govt.nz](http://www.frst.govt.nz)]

04 917-7800

Technology New Zealand has a wide range of programmes to help fund the adoption of new technology and to apply technological innovation to business development. If you are using e-commerce in innovative ways, or if you are developing a business in high-technology, high-value areas, then you should talk to them. Their main office is in Wellington, with another in Auckland.

#### **Business incubators**

Business incubators, as a rule, provide premises and other facilities for a number of start-up businesses in one location, often attached to a university or polytech. The businesses are often innovative, and may be technologically-based. Often there are mentors or other sources of business advice available to tenants. Your local Council, development agency, or BIZ office will be able to refer you to an incubator if there is one in your area.

#### **Economic Development Agencies**

There are economic development agencies in

41 centres, usually aimed at a co-ordinated approach to economic development in their area. They go under a variety of names – look in the Yellow Pages under ‘Business Centres’. These agencies are often a good point of initial contact because they will know of other initiatives and programmes in their area.

#### **Business in the Community (BITC)**

[[www.businessmentor.org.nz](http://www.businessmentor.org.nz)]

BITC runs a business mentoring programme in 20 centres around New Zealand. Under the scheme, retired executives and business people offer their experience to provide help for new businesses. If there is one in your area you will be able to make contact with it through a local development agency or BIZ office.

#### **Chambers of Commerce**

[[www.chamber.co.nz](http://www.chamber.co.nz)]

In many centres the local Chamber of Commerce runs the BIZ programmes, and it may also run other programmes of interest.

#### **Universities and polytechnics**

Some universities and polytechnics have set up courses in e-commerce, or include e-commerce in their marketing courses. Many institutions offer extension courses or summer schools that are accessible without needing to embark on a full degree or diploma course. Contact your local institution, or use the lists under ‘Education’ at [www.tepuna.natlib.govt.nz](http://www.tepuna.natlib.govt.nz).

#### **Business networks**

Some of the best help can be found amongst other business people. Service organisations like Rotary, special-interest organisations like the Maori Business Network, the Migrant Business Network, Women in Self Employment, various trade associations, and many other organisations can put you in touch with like-minded people. If you belong to such an organisation and it doesn't have an e-commerce group, you could always start one.

# LIST OF WEB SITES

## Part 1

Biolab Direct [www.biolab.co.nz](http://www.biolab.co.nz)  
Companies Office [www.companies.govt.nz](http://www.companies.govt.nz)  
Ebay [www.ebay.com](http://www.ebay.com)  
Government Electronic Commerce Web Site  
[www.ecommerce.govt.nz](http://www.ecommerce.govt.nz)  
'The State of E-New Zealand', by David Boles de Boer, Lewis Evans, and Bronwyn Howell is available at: [www.iscr.org.nz/navigation/research.html](http://www.iscr.org.nz/navigation/research.html)  
Trademe [www.trademe.co.nz](http://www.trademe.co.nz)

## Part 2

Arts & Letters [www.cybereditions.com/aldaily](http://www.cybereditions.com/aldaily)  
Conduit [www.thewebconduit.com](http://www.thewebconduit.com)  
Cranium Music [www.cranium.co.nz](http://www.cranium.co.nz)  
International Cars Direct [www.carsdirect.co.nz](http://www.carsdirect.co.nz)  
LIGNUS [www.lignus.co.nz](http://www.lignus.co.nz)  
Needlecraft Distributors Ltd [www.needlecraft.co.nz](http://www.needlecraft.co.nz)  
OBO Goal Keeping [www.obo.co.nz](http://www.obo.co.nz)  
Renaissance Distribution [www.renaissance.co.nz](http://www.renaissance.co.nz)  
Salon [www.salon.com](http://www.salon.com)  
Servotech [www.servotech.co.nz](http://www.servotech.co.nz)  
Slate [www.slate.com](http://www.slate.com)  
Sparesfinder.com [www.sparesfinder.com](http://www.sparesfinder.com)  
Talbot Plastics [talbotplastics.com](http://talbotplastics.com)

## Part 3

ASB Bank [www.asb.co.nz](http://www.asb.co.nz)  
B2B Exchanges [www.b2bexchanges.com](http://www.b2bexchanges.com)  
BizInfo [www.bizinfo.co.nz](http://www.bizinfo.co.nz)  
Bank of New Zealand [bnz.co.nz](http://bnz.co.nz)  
Consumer Affairs [www.consumer-ministry.govt.nz](http://www.consumer-ministry.govt.nz)  
Credit card information [www.merchantworkz.com](http://www.merchantworkz.com)  
[www.fencepost.com](http://www.fencepost.com)  
Geocities [geocities.yahoo.com/home/](http://geocities.yahoo.com/home/)  
Hobbe's Internet Timeline  
[info.isoc.org/guest/zakon/Internet/History/HIT.html](http://info.isoc.org/guest/zakon/Internet/History/HIT.html)  
[www.cyveillance.com](http://www.cyveillance.com)  
Inland Revenue Department [www.ird.govt.nz](http://www.ird.govt.nz)  
Jacob Neilson articles [www.useit.com](http://www.useit.com)  
Jacob Neilson's article *Ten Good Deeds in Web Design* [www.useit.com/alertbox/991003.html](http://www.useit.com/alertbox/991003.html)  
M-Co [m-co.co.nz](http://m-co.co.nz)  
Mp3.net.nz  
OECD Guidelines  
[www.oecd.org/dsti/sti/it/consumer/](http://www.oecd.org/dsti/sti/it/consumer/)  
[www.winzurf.co.nz/ndta/index.htm](http://www.winzurf.co.nz/ndta/index.htm)  
[www.monster.co.nz](http://www.monster.co.nz)  
NZJobs [www.nzjobs.co.nz](http://www.nzjobs.co.nz)  
Privacy Commissioner [www.privacy.org.nz](http://www.privacy.org.nz)  
Quick guide to New Zealand law and e-commerce  
[www.bakerinfo.com/apec/nzapec.htm](http://www.bakerinfo.com/apec/nzapec.htm)  
Quick guide to the law and e-commerce in the 21 APEC economies [www.bakerinfo.com/apec](http://www.bakerinfo.com/apec)  
Rachel McAlpine [www.writing.co.nz](http://www.writing.co.nz)  
Sharechat [www.sharechat.co.nz](http://www.sharechat.co.nz)

Stockwatch [www.stockwatch.co.nz](http://www.stockwatch.co.nz)  
Tour Time [www.tourtime.co.nz](http://www.tourtime.co.nz)  
Tripod [www.tripod.lycos.com](http://www.tripod.lycos.com)  
Web Farm [www.webfarm.co.nz](http://www.webfarm.co.nz)  
Webdrive [www.webdrive.co.nz](http://www.webdrive.co.nz)  
Zoodoo [www.zoodoo.co.nz](http://www.zoodoo.co.nz)

A list of free ISPs is available at  
[www.netguide.co.nz/isp\\_directory/free\\_isp/free\\_isp.php3](http://www.netguide.co.nz/isp_directory/free_isp/free_isp.php3)

A list of nationally available dialup ISPs is available at  
[www.netguide.co.nz/isp\\_directory/national\\_isp/nat\\_isp\\_dir.php3](http://www.netguide.co.nz/isp_directory/national_isp/nat_isp_dir.php3)

## Search sites and portals

Access New Zealand [www.accessnz.co.nz/](http://www.accessnz.co.nz/)  
NZGO New Zealand Government Web Sites  
[www.govt.nz](http://www.govt.nz)  
Search NZ [www.searchnz.co.nz/](http://www.searchnz.co.nz/)  
Te Puna Web Directory  
[tepuna.natlib.govt.nz/web\\_directory](http://tepuna.natlib.govt.nz/web_directory)

AltaVista.com  
Excite.com  
Google.com  
Infoseek.com  
Lycos.com  
Yahoo.com

Search Engine Watch [www.searchenginewatch.com](http://www.searchenginewatch.com)  
List of New Zealand search sites  
[tepuna.natlib.govt.nz/web\\_directory/NZ/internetdirs.htm](http://tepuna.natlib.govt.nz/web_directory/NZ/internetdirs.htm)

## Select list of books

*B2B Exchanges: the Killer Application in the Business to Business Internet Revolution*, Arthur B Sculley and W William A Woods, ISI Publications, 1999.

*Blown to Bits: How the New Economics of Information Transforms Strategy*, Philip Evans and Thomas S. Wurster, Harvard Business School Press, 2000.

*Digital Capital: Harnessing the Power of Business Webs*, Don Tapscott, David Ticoll and Alex Lowy, Nicolas Breakly Publishing, 2000.

*Exploring Corporate Strategy: Text and Cases*, Gerry Johnson and Kevan Scholes, 4 ed, Prentice Hall, 1997.

*Net Ready : Strategies for Success in the E-economy*, Amir Hartman and John Sifonis with John Kador, McGraw-Hill, 2000.

*Web Word Wizardry*, Rachel McAlpine, Corporate Communications, 1999.



