IT OUTSOURCING: MAKING IT WORK

A white paper by
Rob Aalders

www.fujitsu.com.au
## CONTENTS

**ABOUT THE AUTHOR**  4

**WHAT IS OUTSOURCING?**  5

**THE CURRENT STATE OF OUTSOURCING**  5
   The extent of outsourcing  6
   Outsourcing pioneers  6

**WHAT HAS GONE WRONG IN OUTSOURCING**  7
   Failure to take a strategic approach  7
   Lack of experience  7
   Absence of method  7
   Micro management  7
   Failing to understand the role of IT  7
   Ignoring interrelationships  8
   The people factor  8
   Cost driven  8
   And many others…  8

**WHAT HAS GONE RIGHT IN OUTSOURCING**  8

**WHAT TO LOOK FOR IN SERVICE PROVIDERS**  11
   The importance of method  11

**COMMON MISTAKES IN OUTSOURCING**  12

**THE COSTS OF OUTSOURCING**  13

**THE BENEFITS OF OUTSOURCING**  13
   Improvements that cannot be achieved by average IT units  13
   Improved business processes  14
   Better cost management controls  14
   Quality of service  15
   Keeps pace with the competition  16
   Core competency focus  16
   A valid way of achieving cultural change  16
   Access to management qualities not found in IT departments  17
   Flexibility in staff numbers  17
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality staff</td>
<td>17</td>
</tr>
<tr>
<td>Access to specialist skills and knowledge</td>
<td>18</td>
</tr>
<tr>
<td>You can fire your outsourcer</td>
<td>18</td>
</tr>
<tr>
<td><strong>DOING OUTSOURCING RIGHT</strong></td>
<td>18</td>
</tr>
<tr>
<td><strong>OUTSOURCING CHECKLIST</strong></td>
<td>19</td>
</tr>
<tr>
<td><strong>NEXT STEPS</strong></td>
<td>19</td>
</tr>
<tr>
<td><strong>RECOMMENDED READING</strong></td>
<td>20</td>
</tr>
<tr>
<td><strong>ABOUT FUJITSU</strong></td>
<td>21</td>
</tr>
</tbody>
</table>
ABOUT THE AUTHOR

Rob Aalders is the author of *The IT Outsourcing Guide*, which has received worldwide acclaim. *IT Week* described it as an “instant classic”. *The Australian Financial Review* wrote “If it’s your job to manage any aspect of information technology outsourcing … you should buy this book”. Dr Mary C Lacity, Associate Professor of MIS at the University of Missouri (US), and Dr Leslie P Willcocks of the University of Oxford (UK) both praised this book for its quality and practicality. Aalders is also the co-author of *The IT Manager’s Survival Guide*, to be published later this year.

Rob Aalders had a notable career as a CIO and consulting strategist in the UK, Asia and Australia. His clients included Qantas, Australia Post, Hong Kong Transport, TNT and Tyndall Australia.
WHAT IS OUTSOURCING?

Simply put, outsourcing is the contracting of a third party to manage a business process more effectively and efficiently than can be done in-house. The purpose of this white paper is to review issues and opportunities offered by IT outsourcing. It identifies common errors made in outsourcing and factors that are critical to success.

THE CURRENT STATE OF OUTSOURCING

Outsourcing is not a novel concept. Business processes such as fleet management, printing and advertising have been contracted to external suppliers for decades. However, IT outsourcing is a relatively new practice, despite some arguing it is similar to the computer bureau services of the 1960s and 1970s. Key distinctions between then and now include:

- The central role information technology now plays in almost every facet of business. The bureaux of the ‘60s and ‘70s largely processed simple billing functions.
- The advent of integrated applications, end-user computing, networking and distributed systems has created computer environments that are both complex and brittle. Early bureaux ran monolithic mainframes with dumb terminals.
- The fact that information technology is now central to the minute-to-minute operation of the business. The systems of the 1960s and 1970s performed back-room functions.

A decision to outsource information technology processes now implies a much heavier reliance on the quality of the service provided by the outsourcer.

Many large, sophisticated and successful corporations have followed the outsourcing path with spectacular success.

A few others have discovered the hard way that outsourcing can be a complex process, fraught with difficulty. Some of these companies retreated from outsourcing and tried to bring their systems back in house. They discovered that reversing the process is not simple, as they still lack both skills and resources.

Outsourcing can be a spectacular success if it’s done for the right reasons, follows due process, and is pursued with realistic expectations and a clear understanding of where the benefits are likely to emerge.
The extent of outsourcing

The size of the worldwide outsourcing industry was estimated by research organisation Dataquest to be more than $US100 billion in 2001 and growing at 20 percent per annum. Some Australian analysts estimate the proportion of large to medium enterprises outsourcing IT functions will have grown from around 25 percent in 1997 to more than 50 percent by 2001.

A survey\(^1\) of the London Stock Exchange FTSE Index over a period of three years found a generally positive relationship between high levels of outsourcing and enhanced stock market performance. This does not prove that outsourcing and performance are directly related, but it does suggest well-run companies see outsourcing as a sound management practice.

The fact is that outsourcing is here to stay, and those that use it most effectively will reap the benefits of their foresight and good management.

Outsourcing pioneers

In outsourcing, the old observation that pioneers get arrows in their backs rings true. The pioneers who managed the first generation of outsourcing projects learned many harsh lessons. Among them were:

- The importance of following a sound process in selecting the provider and forming the contract
- The critical role played by the service provider’s infrastructure management methodology – or lack of it
- The importance of developing an appropriate focus on costs and benefits, and understanding how benefits may emerge
- The need for both parties to dedicate resources to properly manage the relationship
- The need for new incentive models that reward both individuals and organisations for success
- Understanding that failure is always a joint responsibility

Above all, the first generation learned that outsourcing selections driven by price alone would almost certainly lead to tears and disappointment.

\(^1\) Zaple A. *Successful Outsourcing and Contract Management*, Presentation, May 1999
WHAT HAS GONE WRONG IN OUTSOURCING

Some early outsourcing arrangements were unsuccessful for a number of reasons, including:

Failure to take a strategic approach

Some failed to approach outsourcing as a strategic decision. “Know your motives!”, said one CEO, and ensure you have a strategy to drive your outsourcing project. Nearly all the evidence points to the importance of ensuring that the decision to outsource is made with a strategic perspective and associated with clear goals and objectives.

Lack of experience

The pioneers lacked experience, frameworks, and methods for outsourcing. Contracts, service level agreements, risk management, performance agreements and resource management methods grew from trial and error. Today there is a plethora of experienced consultants and enterprises to help steer the novice around the dangers.

Absence of method

Some early outsourcers lacked formal or testable means for delivering services. Today, companies such as Fujitsu and Microsoft have invested heavily in introducing formal methods such as the IT Infrastructure Library (ITIL) for best practice in managing IT services.

Micro management

Some pioneers over-managed the service provider. US-based outsourcing authority Peter Bendor-Samuel reported on a company that even prevented the outsourcer using its best practice methodology, with dismal results. Leave managing the inputs to the outsourcer.

Failing to understand the role of IT

"Organisations fail when they hand over IT without understanding its role in the organisation, and what the vendor's capabilities are," said authors Lacity and Willcocks. Some companies failed to understand that IT no longer simply supports mission critical business processes – it is one!

---

2 Wilkins M, Royal & Sun Alliance, Personal communication, Oct 2000
3 Paul LG, CIO magazine, IDG Communications, Sydney, Spring 2001
Ignoring interrelationships

Dependencies between various business processes and between IT and business processes are often tightly woven. Some failed to understand this and suffered accordingly.

The people factor

One manager\(^5\) observed that “Outsourcing can be pretty awful for IT staff. They are squeezed by their new employer for whom they may feel little attachment and then the customer, their old employer, squeezes them”. Some pioneers gave insufficient attention to people issues.

Cost driven

The selection of the cheapest supplier, regardless of competence, was a mistake. Outsourcing is about improving effectiveness and efficiency. Revenue growth and savings may emerge downstream in the business. Some pioneers adopted a narrow view of cost reduction based on an often dubious IT budget that confused direct, indirect, variable, fixed and marginal costs and was naïve in forecasting effects on revenue.

And many others…

The list is considerable and includes other failings such as inflexible contracts, inadequate service level agreements, confrontational management practices and a failure to appreciate that improving information technology services can be a long, slow haul.

WHAT HAS GONE RIGHT IN OUTSOURCING

Lots! The table\(^6\) below illustrates the high percentage of organisations that have rated their decision to outsource as positive. Note that the sum

---

\(^5\) Kovari N, Personal communication, October 2000

\(^6\) This and other tables in this document are composite tables. They illustrate averaged scores taken by separate organisations using differing scales, techniques and measures. Composite tables are approximations and independent measurements by other consulting firms may lie above or below these averages. Principal sources include:

of those both ‘Satisfied’ (roughly 38%) and ‘Very satisfied’ (approximately 42%) totals to around 80 percent.

A good proportion of those surveyed rated their satisfaction very high. The reasons for this satisfaction are outlined in the table below.

Analysts report a continuing trend for companies to rate ‘freeing management time’ very highly. A survey\(^7\) by a major consulting group in 1998 reported this as the highest scoring item both in Australia and overseas. It is likely this displays a growing awareness of the strategic

---

\(^6\) Lacity MC & Willcocks LP, *Global Information Technology Outsourcing*, John Wiley & Sons Ltd, UK 2001

\(^7\) *Strategic Outsourcing Survey 1998*, PA Consulting Group, 1998
value of outsourcing in allowing managers more time to focus on their core business.

Other researchers have cited the following reasons why companies continue to outsource:

- Taking the IT function to a level of competence higher than achievable in-house
- Facilitating best practice and best-of-breed implementation
- Leveraging ‘business critical’ infrastructure
- Extending global reach and standardisation of IT
- Converting fixed costs to variable costs
- Disposing of overvalued assets
- Reducing procurement management costs
- Improved service levels to both customers and staff

Later in this paper other benefits are explored in more detail. It is sufficient to note at this stage that despite some bad press, well managed outsourcing works.

One source of bad press has been the review of the Australian Commonwealth whole-of-government outsourcing project. This report\(^8\) identified cultural problems and resistance to change as key issues. *CIO* magazine\(^9\) reported “According to Fahey [then the Finance Minister] and Humphry, the government was forced to impose its whole-of-government approach on uncooperative agency heads because they were wilfully blocking the government’s initiative to outsource the bureaucracies’ needs”.

Auditor General PJ Barrett, commenting on the Humphry report in a recent article\(^10\), listed some of the benefits arising from outsourcing as being:

- Improvements in the transparency and consistency of decisions over time, and
- Contributions to cost-effective outcomes

The Auditor General’s own report\(^11\) is often positive about the whole-of-government project. Sadly, for many journalists good news is not news and the positives received little mention in the press.

---


\(^9\) Bushell S, *CIO* magazine, IDG Communications, Sydney, Spring 2001

\(^10\) Barrett PJ, *CIO* magazine, IDG Communications, Spring, Spring 2001
WHAT TO LOOK FOR IN SERVICE PROVIDERS

Not all service providers are created equal. Some important criteria to seek include:

- Appropriate outsourcing experience and proven customer satisfaction
- Sound formal best practice processes such as ITIL
- Standard design and implementation methodology
- Adequate numbers of appropriately skilled resources
- Industry leading technologies that are integrated into their processes
- Sound financial performance and backing
- Scale and geography to match your organisation’s needs
- Preparedness to be flexible locally without dropping standards
- Appropriate frameworks for service level management
- Cultural fit as widely differing cultures will lead to confrontation
- Commitment to continual improvement in their business
- Strong transition experience and human resource transition skills
- Clear vision of its role in leveraging your business
- The appropriate motivation to enhance your business

The last criterion is important. You must understand why the outsourcer wants your business and what their goal is for the outsourcing program.

The importance of method

Formal method is a ‘must have’ in two critical areas:

- Systems development. This is rarely an issue as major consulting companies usually adhere to formal systems development methodologies
- Operations and service level management. Conversely, many will lack formal methods for this critical part of infrastructure management that keeps your business running

If the service provider cannot show that it has formal methods for managing your information technology operations, then you hand over your IT to people flying by the seat of their pants.

---

It is critical that you ask your service provider “How will you do these things?” Do not fall for sales spruik about what can be done. You must also determine how it will be done.

**COMMON MISTAKES IN OUTSOURCING**

Common mistakes in outsourcing include:

- Failing to properly determine the motives, goals and objectives of outsourcing
- Concentrating on cost reduction rather than benefits and the value added
- Sub-standard corporate governance of the outsourcing program over time
- Failure to appoint staff to manage the relationship and contract
- Mishandled communications to staff, customers and other stakeholders
- Inadequate incentive models that fail to motivate both individuals and the corporate entity on both sides

The following illustrates a number of tensions that arise in outsourcing agreements:

- Operational flexibility ⇔ Contract adherence
- Cost and capital ⇔ Infrastructure upgrades
- Project duration ⇔ Technical quality
- Managing the customer ⇔ Managing the outsourcer
- Local contract malleability ⇔ Global corporate policy
- Formal methodology ⇔ Extenuating circumstances
- Outsourcer goals ⇔ Customer goals
- Customer culture ⇔ Outsourcer culture

Many of these tensions can be greatly reduced or removed by following a sound selection and contract formation process. Standards Australia publishes an excellent reference titled *HB 240:2000 Guidelines for managing risk in outsourcing utilizing the AS/NZS 4360 process*. 
THE COSTS OF OUTSOURCING

Most researchers have given considerable attention to the costs of outsourcing. Those new to the field might be surprised to find that many people argue – as Lacity & Willcocks\(^{12}\) do – that cost savings are no longer a major reason for outsourcing. Indeed, this duo draws attention to the fact that an over-tight focus on costs, coupled to negligible profit margins for the outsourcer, can constrain business flexibility. Costs in outsourcing projects will typically rise in the early years as staff are transitioned, entropic systems stabilised, proper procedures and methods implemented and aged hardware replaced. There may be further costs for acquiring proper systems management and network management tools, as well as the initial overheads of contract management.

In the long term the costs are likely to stabilise and then reduce in comparison to what they might have reached without outsourcing. Lacity and Willcocks (ibid.) noted that “Economic efficiency has more to do with IT practices than the inherent economics of scale”. It is probable that outsourcing leads to investment in enterprise architectures, plans, process and systems management tools that in turn lead to the savings reported by most of the researchers named in this report.

THE BENEFITS OF OUTSOURCING

The benefits of outsourcing are many. A number of them are explained below.

**Improvements that cannot be achieved by average IT units**

A consultant\(^{13}\) has noted that “One thing that outsourcing all or part of an IT shop forces upon an organisation is the definition of the outputs required, service levels and formal processes for the definition of requirements and change”.

Outsourcing is a useful tool for bringing about this oft needed cultural change.

---


Improved business processes

The introduction of method and rigour in IT processes tends to flow on to the business processes. Outsourcers encourage *business managed* budget development and business controlled project expenditure. They encourage formal information technology investment proposals and provide the skills in managing resultant change.

Outsourcers make it easier for the business to manage IT effectively. They provide appropriate information and reports that ensure expenditure, progress and issues are visible and controllable.

Better cost management controls

Humphry’s report\(^\text{14}\) on the Commonwealth of Australia’s whole-of-government outsourcing initiative noted that “There has been significant debate about the extent to which savings have or have not accrued as a result of the Initiative. While the Auditor General has commented upon the savings, he has been very clear in his report, and in Senate Estimates hearings, that regardless of the methodology for calculation of savings, there are significant savings”.

*CIO* magazine\(^\text{15}\) recently reported that “Commonwealth Auditor General Pat Barrett, too, while noting higher-than-expected costs resulted in lower-than-expected savings, fully accepted that savings had been achieved”.

A 1998 survey\(^\text{16}\) of companies reported most outsourcing initiatives resulted in cost reductions with “about 75% of respondents indicating cost reductions of up to 20% of their annual budget”.

Yet many will dispute that outsourcing cuts cost. This argument often fails to consider what IT costs would have risen to without outsourcing, or the burdens that ineffective IT has placed on the business.

It is evident that in general outsourcing brings with it a tougher cost management regime, including:

- More rigorous controls over expenditure in general. The service provider will normally face a tougher expense control regime than an internal unit

---


\(^{15}\) Bushell S, *CIO* magazine, IDG Communications, Sydney, Spring 2001

\(^{16}\) *Strategic Outsourcing Survey 1998*, PA Consulting Group, 1998
• Greater visibility over the true cost of IT. Outsourcing tends to bring to the surface the hidden costs of IT

• The service provider’s staff are used only when needed. Anand Barry\(^{17}\), Manager, Alliance Development, Fujitsu Services, has articulated this well, saying: “Flexible resourcing from the outsourcer can provide services that are available when needed, available when expanding or relocating, and not costing when not needed”

• Economies of scale from shared infrastructure, tools, utilities and specialist skills

• Requests for additional IT staff are more closely argued, and approval is limited to the project or task in question. The service provider has to justify every one of its IT staff: it faces a zero based budgeting exercise every month

Outsourcing makes IT costs visible in a way that does not happen in traditional management reporting. All costs for manpower, supplies, maintenance and the like are identified and reported. This uncovering of previously concealed cost tends to bring about a demand for tighter controls.

Yet you should not approach outsourcing as a tactical cost cutting solution; it must be a strategic decision. As Dr. Edward Lewis\(^{18}\) has said “Unless outsourcing is correctly selected and properly managed, there’s considerable potential for failure…”

**Quality of service**

The dynamics of the outsourced environment are quite different from those in the internal environment. The outsourcer is a different economic entity with profit at risk.

The service provider will strive to deliver quality, and if it is any good it will have adopted or developed a rigorous, testable service delivery method such as the ITIL method.

The service provider will also provide quality in output, partly from implementing the improved definitions of outputs, requirements and change control, and partly from having staff with a higher level of skill and education than is found in many IT departments.

---

\(^{17}\) Barry A, Fujitsu Australia Limited, ICM Conference, Sydney, October 1999

\(^{18}\) Bushell S, *CIO* magazine, IDG Communications, Sydney, Spring 2001
Finally, the service provider will often drive improved quality in planning and budgeting. Poor planning and budgeting can damage its revenues and profits.

**Keeps pace with the competition**

Many companies face issues of capacity and capability in their internal IT unit. An outsourcer can generally provide resources reasonably quickly. This allows you to acquire new systems or support business activities in a way that is not possible with a limited internal unit.

The improved process and output quality will also add to competitive strength. The controls that outsourcing brings with it tends to ensure that systems are built better.

The service provider also will invest in state-of-the-art equipment and processes to provide the service, because that is its core business.

**Core competency focus**

Simply put, IT is a distraction for many managers. Business units often find themselves micro-managing IT inputs. This issue is then often compounded by the need to exhaustively test IT outputs because of poor quality.

IT is not a core competency for most businesses; the rise of outsourcing is an endorsement of this fact. Businesses are not very good at running their IT. If they were there would be no need to consider outsourcing. IT may be a core process, and others may run our core processes better.

If the agreement is properly structured to focus on meeting business objectives through delivering outputs, then business managers are freed from managing IT and can focus on revenue generation instead.

**A valid way of achieving cultural change**

Change is difficult to bring about and it requires a significant catalyst or trigger.

It is often frustration with the cultural issues that lie at the heart of IT issues of quality, deliverables and business responsibility. As the CEO of a national organisation has observed\(^\text{19}\), “Outsourcing can be a valid way of breaking a culture so that you can later bring an improved unit back in house”.

---

\(^{19}\) Graham V, National Rail Corporation, Personal communication, October 1999
Outsourcing can act as a powerful bulldozer of change and this should be regarded as a benefit.

**Access to management qualities not found in IT departments**

Fujitsu’s Anand Barry\(^{20}\) stated in a conference presentation that “Outsourcing introduces discipline in defining and measuring service levels”. In other words:

- Services to be delivered are defined
- Measurement of these services is defined
- Data is collected and reported
- Trends are available for planning
- Efficiency comes from common management platforms

An audit of most internal IT shops will reveal very few define the services to be delivered and even fewer measure their success in delivering these services.

Formal methodologies are often absent. The common argument from IT is that they have examined all the current ones and rejected them as they lack flexibility, are overly detailed and onerous to follow. I suggest the real reason for rejection is that methods would force the IT unit to do its work properly, demand an understanding of the underlying complexities and introduce rigour where anarchy was once enjoyed.

Outsourcing typically brings method, rigour and discipline to the management of information technology services.

**Flexibility in staff numbers**

Companies often wind up with excess staff when major projects finish. Work swarms in to fill the gap, and the company carries a ‘hidden’ cost for a project well beyond its actual finish date.

Service providers work on the consulting model. They own the pool of labour. You just rent it when you want it, and when you do not want it, you send it back.

**Quality staff**

Research organisation Gartner Group\(^{21}\) titled one of its articles ‘CIO Alert: A Wave of AD Incompetence Approaches’. The article warns of

---

\(^{20}\) Barry A, Fujitsu Australia Limited, ICM Conference, Sydney, October 1999

\(^{21}\)
staff with no formal education in IT— or at best with basic programming tuition—migrating to IT careers. These people lack exposure to the broad view of IT theory and best practices. Staff such as this are unlikely to be hired by the better outsourcers.

Consultancy firms and major outsourcing service providers tend to be attractive to graduates. Having hired them, these companies will ensure the graduates are trained in a consistent and scientific method. They then bring a coordinated and cohesive approach to tasks. In contrast, the lack of consistent method in many internal IT departments provides a level of coordination analogous to a seven-year-olds’ football team.

**Access to specialist skills and knowledge**

Like medicine, information technology also has specialists. They may be data architects, strategic planners, network designers or change control specialists, to name a few. Only the largest IT shops are likely to employ these people.

A professional services company will have a pool of these people available to its customers. These skills are available to you when needed.

**You can fire your outsourcer**

You can fire your outsourcer, but you cannot fire your IT department. I do not encourage fear as a management tool, but I recognise a little of it goes a long way.

This is a large but still incomplete list of the benefits that can accrue through outsourcing. There is only one benefit we do not argue for; that outsourcing reduces cost. Indeed the increased premium, if any, paid for outsourced IT may be a good investment.

**DOING OUTSOURCING RIGHT**

Doing outsourcing right requires no magic or good luck. It does demand what Professor Fred Hilmer of the Australian Graduate School of Management described as “… the skilful application of sound and proven ideas to particular situations facing managers, not dogma, jargon or quick-fix fads”.

---

21 Gartner Group, *Inside Gartner Group This Week* Vol XV, No. 31, 4 August 1999
OUTSOURCING CHECKLIST

Many of the following questions are as applicable to established agreements as they are to a novice undertaking a first-time outsourcing project:

- Do you know your real motives for outsourcing?
- Have you determined the most appropriate transition to outsourcing for your business, for example big bang, piecemeal or incremental transition?
- Are your motives for outsourcing supported by matching goals and objectives and are these goals and objectives realistic?
- Have you appointed a properly qualified group to undertake the process, including if necessary auditors, accountants, lawyers and project managers?
- Do you know the full extent of your IT assets, including licences, people and equipment?
- Have you obtained measures of current performance of all affected assets, people and processes?
- Does your RFP clearly reflect your goals and objectives for outsourcing and will you be able to measure how well bidders comply with those needs?
- Have you asked the bidders how they will achieve the goals you set for outsourcing?
- Have you considered how you will manage the outsourcing contract and relationship over time?
- Have you fully developed a risk management plan for the outsourcing agreement from inception to termination – for whatever reason?

NEXT STEPS

If you are serious about outsourcing we recommend three immediate steps:

- Inform yourself with background reading
- Talk to others that have outsourced. You may find an outsourcing special interest group or forum in your area
- Talk to established outsource providers and get their advice
RECOMMENDED READING

A number of publications provide sound background on outsourcing, including:

- Greaver II MF, *Strategic Outsourcing*, American Management Assoc. 1999

These and an experienced consultant can help ensure that you reap the benefits and avoid the pitfalls associated with outsourcing.
ABOUT FUJITSU

Fujitsu is one of the world's leading e-services organisations. Fujitsu technology solutions, from servers to e-Business applications, are powering the new Internet economy. In Australia and New Zealand Fujitsu is helping corporate and government customers to design, build and operate solutions which offer competitive advantage in the Internet world, from state-of-the-art infrastructure through to complex e-Business solutions. Our portfolio of IT services includes consulting, systems integration, prime contracting and a full range of professional services. Fujitsu Australia Limited is a wholly owned subsidiary of Fujitsu Limited of Japan.

Fujitsu Australia Limited

2 Julius Avenue
North Ryde NSW 2113 Australia

Phone: (61 2) 9776 4555
Fax: (61 2) 9776 4556

www.fujitsu.com.au

Fujitsu New Zealand

119-123 Featherston Street
Wellington New Zealand

Phone: (64 4) 495 0700
Fax: (64 4) 495 0730

www.fujitsu.co.nz

© 2002 Fujitsu Australia Limited

Fujitsu endeavours to ensure that the information in this document is correct and fairly stated, but does not accept liability for any error or omission.