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There's no ALMOST in Business Continuity

It's Black *or* White. Do *or* Don't. One *or* Zero.

7 September 2012, Presented by Ian Forrester, CFA - Managing Director, Plan-b

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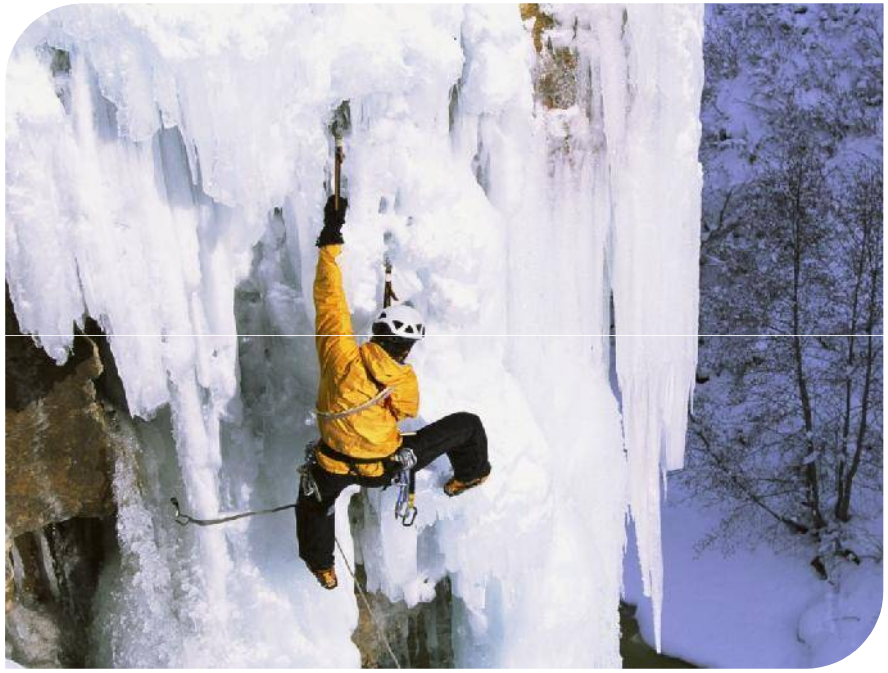
Overview

- Common terminology
- Why Business Continuity?
- So where do I start?
- Current market trends
- Getting back to basics



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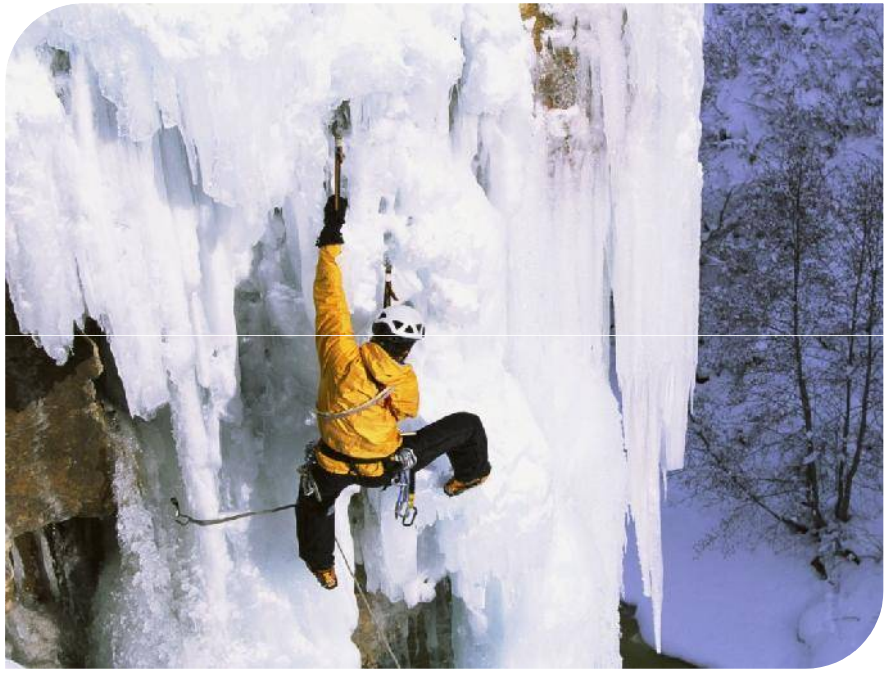
Common terminology

- What is Business Continuity?
- What is Disaster Recovery?
- More common terminology



Business Continuity is not an IT issue

So just what is Business Continuity?

"Business Continuity is the ***activity performed by an organisation to ensure that critical business functions will be available to customers, suppliers, regulators, and other entities that must have access to those functions****. These activities include many daily chores such as project management, system backups, change control, and help desk. Business Continuity is not something implemented at the time of a disaster; Business Continuity refers to those activities performed daily to maintain service, consistency, and recoverability."*

Source: Wikipedia

But DR is a Business Continuity issue

So just what is Disaster Recovery if it's not Business Continuity?

"Disaster Recovery (DR) is the ***process, policies and procedures related to preparing for recovery or continuation of technology infrastructure critical to an organisation after a natural or human-induced disaster****. Disaster Recovery is a subset of Business Continuity. While Business Continuity involves planning for keeping all aspects of a business functioning in the midst of disruptive events, Disaster Recovery focuses on the IT or technology systems that support business functions."*

Source: Wikipedia

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Common terminology

- **Recovery Point Objective (RPO)** – the maximum tolerable time period in which data might be lost
- **Recovery Time Objective (RTO)** – is the time it takes to recover the service
- **Maximum Allowable Outage (MAO)** – is the maximum time that an enterprise's key systems, products or services can be unavailable or undeliverable before causing unacceptable consequences
- **Business Impact Analysis (BIA)** – results in the differentiation between critical (urgent) and non-critical (non-urgent) organisation functions at the impact/cost an absence of those services will have on the business for different periods of time

Source: Wikipedia

Common terminology

- **Business Continuity Plan (BCP)** – is a roadmap for continuing operations under adverse conditions
- **Cloud** – the use of computing resources (hardware and software) that are delivered as a service over a network (typically the Internet)
- **Data Centre** – a facility used to house computer systems and associated components, such as telecommunications and storage systems
- **Co-location (co-lo)** – the placement of several entities IT systems in a single location/data centre

Source: Wikipedia

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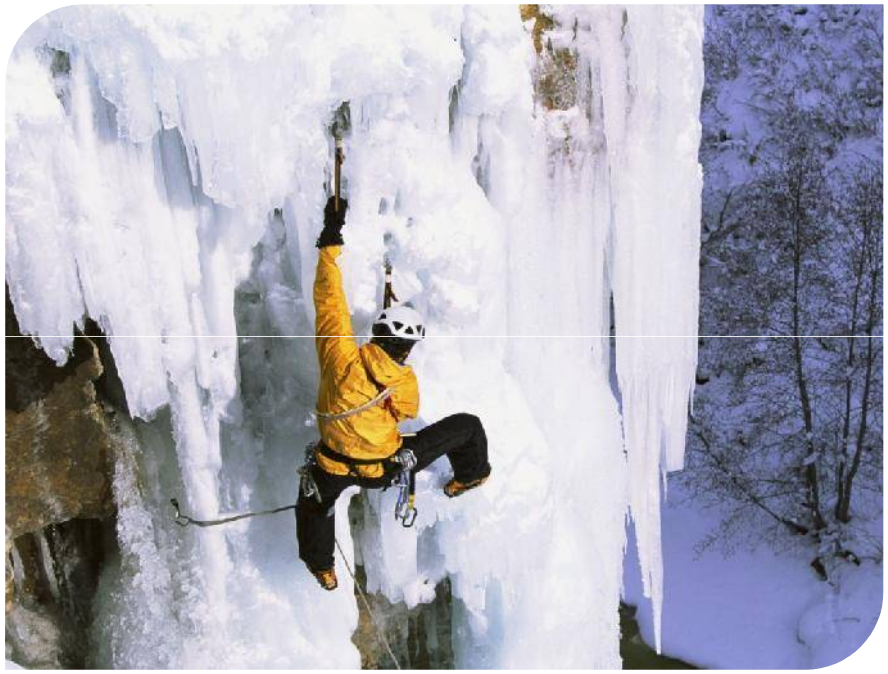
Why Business Continuity?

- New Zealand vs. our trading partners
- Regulations vs. guidelines
- New Zealand businesses are highly exposed
- The most common business risks
- A word from our largest insurer
- What's going to drive change in New Zealand



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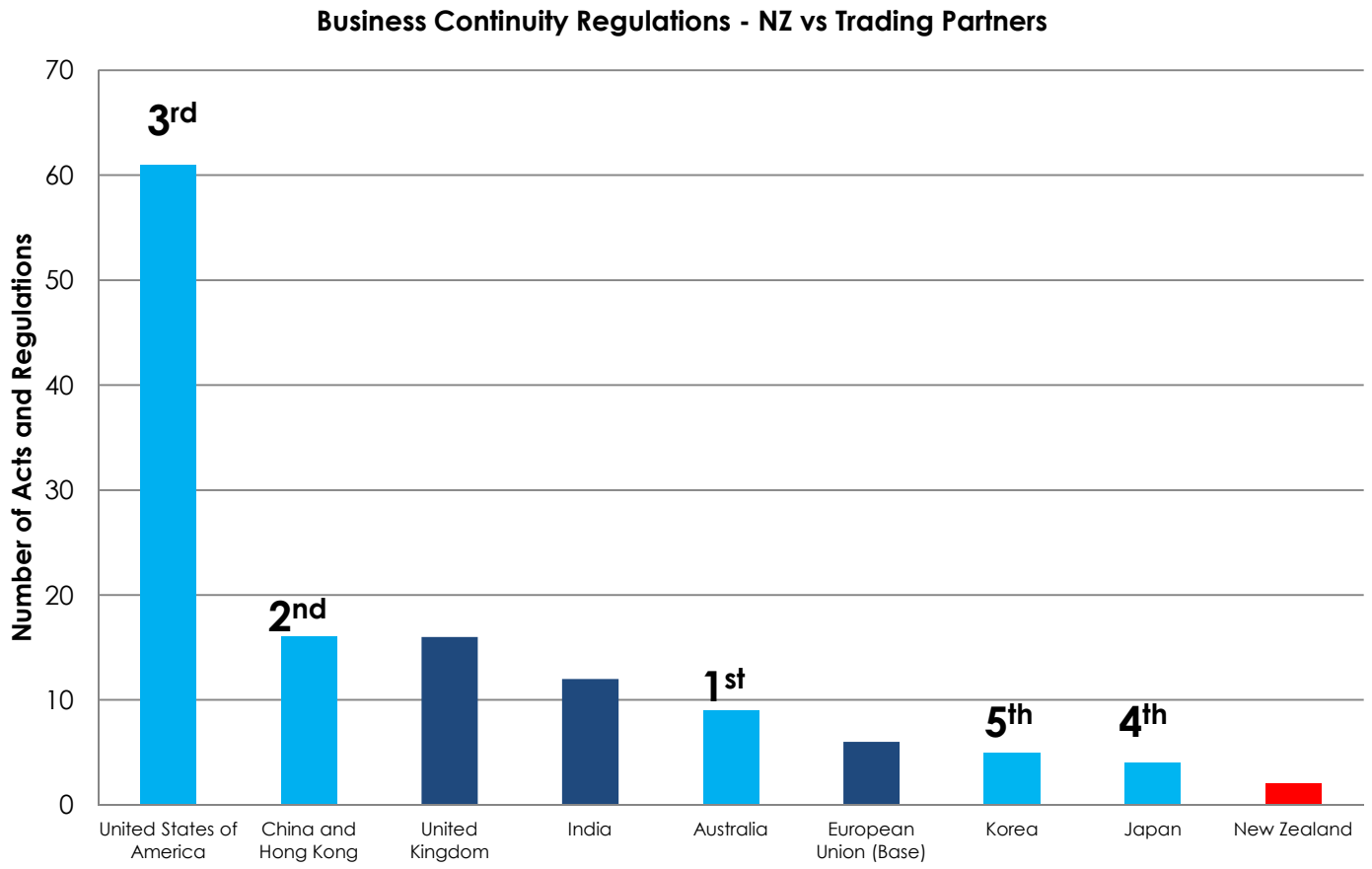
A chain is only as strong as its weakest link

How does New Zealand regulation compare to that of our major trading partners?



Privacy and security are top priorities

The top regulation drivers internationally include:

- Financial, Prudential, Tax and Companies/Corporate Governance
- Data Protection and Information Technology
- Privacy

New Zealand has very limited regulation by comparison:

- Privacy Act
- Civil Defence and Emergency Management Act

Regulation vs. Guidelines

Regulation

"a law, rule, or other order prescribed by authority, especially to regulate conduct"

You Have No Choice

Guidelines

"a principle put forward to set standards or determine a course of action"

It Would Be Nice

New Zealand businesses are highly exposed

- Nearly 50% of respondents could not confirm how long they could afford to be without their key systems or how much data they could afford to lose
- 60% of respondents have not completed a recovery test of their key systems in the past 12 months
- More than half of respondents did not know if they could meet their financial obligations in the event of IT failure i.e. they did not know if they could survive
- 80% of respondents did not know whether they had a clear Business Continuity plan
- Astoundingly, 96% of respondents have not tested their plan in the past 12 months

Source: Plan-b Survey of New Zealand Businesses and Government Agencies, 2012

The most common business risks

are NOT earthquakes and tsunamis but:

- Computer/telecoms failure
- Key equipment failure
- Human error
- Cyber and malicious attack
- Access denial
- Localised fire or flooding
- People issues such as illness/resignations/leave
- Industrial action
- Product defects
- Bomb/terrorism threat

On average 8%-10% of businesses experience a significant business interruption every year

Massey University and Plan-b Research

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So what does our largest insurer have to say?

IAG's biggest concerns and issues today are:

- **Under insurance**
  - Business Interruption Insurance has a finite term of typically 3, 6 or 12 months
  - What happens when it runs out is up to you?
- **Business Continuity under-preparedness**
  - Many businesses are simply not sufficiently prepared or equipped to ensure continuation of operations to service customers i.e. earn revenue
- **Inadequate security**

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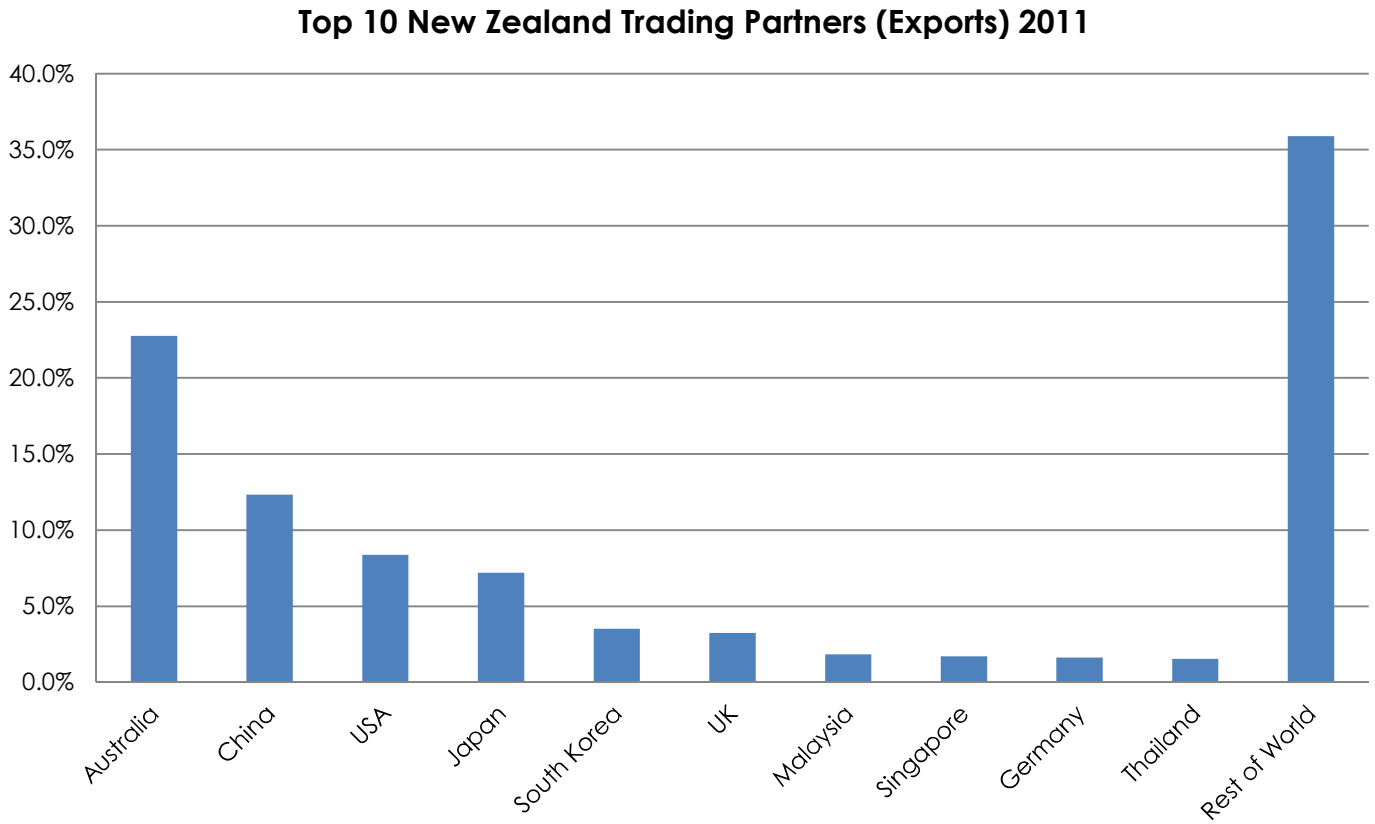
So if we're the weakest link, who cares?

Our top 10 trading partners account for ~65% of our trade
and have higher regulation than us!



I guess we should too!

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We need to get serious!

Example 1 – Large Outsource Provider

- 300 staff
- 10TB data backed up to tape by in-house IT
- Never tested recoverability or integrity of backups

Example 2 – Multinational Distributor

- Revenue over $100 million
- Never tested recovery or integrity of backups
- No continuity plan in place

GAME OVER!

What's going to drive change in New Zealand?

Short term

- Insurance
- A requirement to do business (i.e. customer driven)
- Trading with customers from a higher regulatory environment

Medium term and beyond

- Improved economic conditions are the best time to increase regulation
- Keeping NZ current on the world stage and ensuring our future ability to trade internationally

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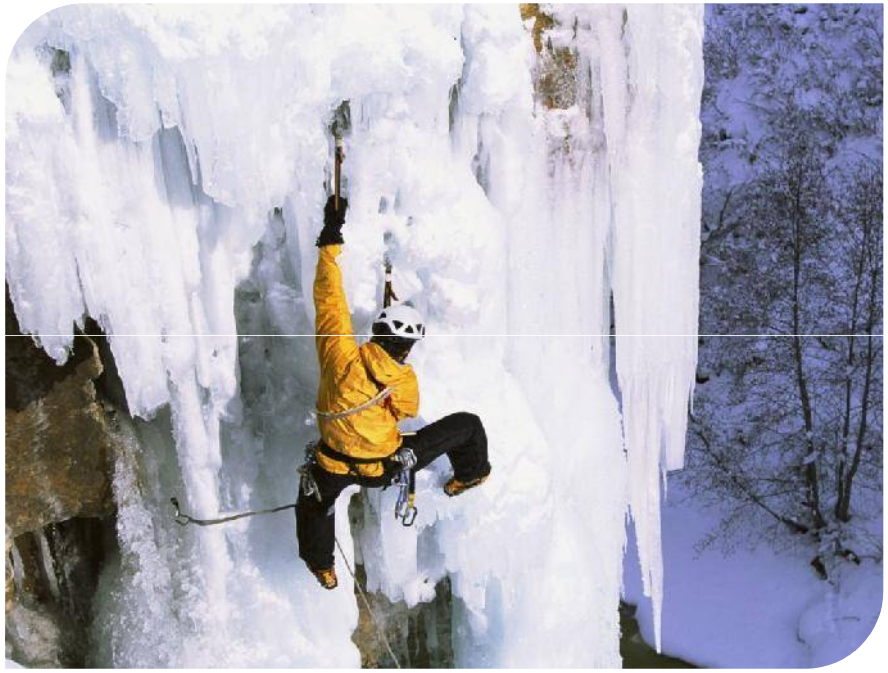
So where do I start?

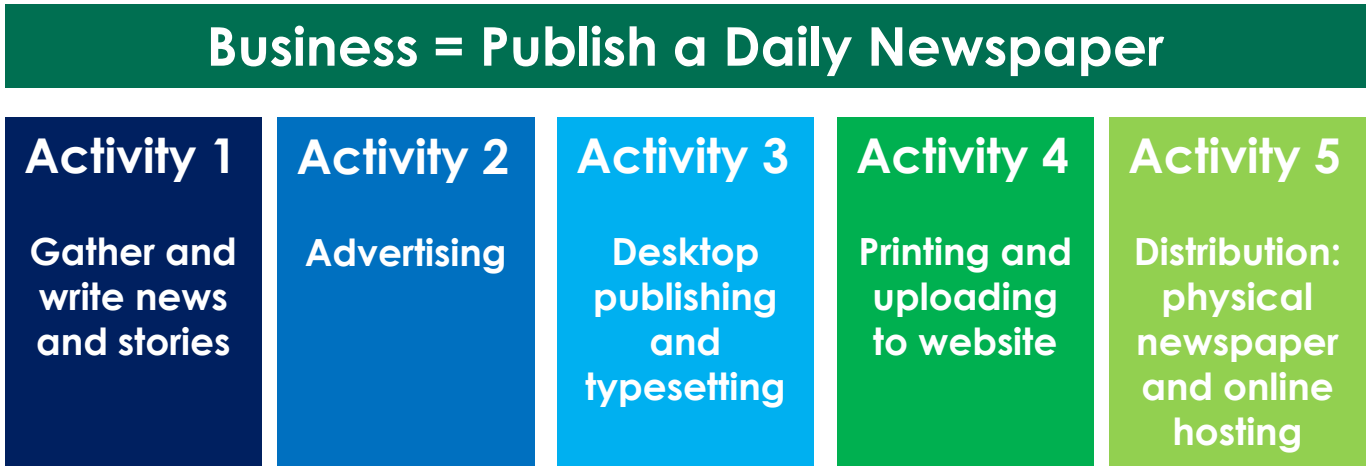
- Start with the basics
- Don't get hung up on the myths



Start with the basics

Building from the bottom up – a worked example

- Why am I in business / what do I sell?
- How do I earn income?
- What are the base systems/business activities needed to achieve that?



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Don't get hung up on the myths

Myth 1 – We'll work from home

- How will you divert phones?
- How will you manage your phone system e.g. transfers/call routing?
- Who has access to a computer with right configuration? (don't assume company laptops are available)
- How many remote logins are available? Are they secure?
    - Have you tested your entire team logging in remotely simultaneously?
- Dispersed teams are less productive and efficient with a breakdown in communication channels
- Interruptions – school holidays, kids, alarms, lawns, TV, radio etc.

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Insurance is only part of the solution

Myth 2 – I have insurance

Example 1 – Consulting Firm (time based earnings)

- 25 staff x 40 hours a week = 1,000 hours
- @ Ave. $250 / hour = $250,000 per week
- @ 75% efficiency = $187,500/week or $37,500/day

Insurance will only cover proven costs and genuinely lost (not delayed) earnings

Example 2 – Capital vs. Profit

- Profit $1 million
- @ PE of 10x Firm Value = $10 million
- Business interruption/loss of profits loss insurance
  = **$9 million shortfall/loss**

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Your data is your most valuable asset

Myth 3 – Don't undervalue your data

- Your data is part of your intangible assets
- Intangible assets i.e. data, cannot be replaced or insured
- **<u>It is your responsibility to protect</u>** the longevity and thus value of **<u>your data</u>**
- So what is the true value of your data?
  - [1]80% of the value of companies in the S&P500 is made up of intangible assets, including your data
  - It's time to get serious about protecting it – remember, it's irreplaceable!

Source: [1]Intellectual Asset Management

If only it were that easy!

Myth 4 – Don't assume backups are complete and successful

- Running a backup does not mean it's complete or successful
- The only way to confirm a backup is recoverable, is to prove it

Myth 5 – We'll buy another one

- Replacement hardware is seldom stocked in New Zealand
- Your new hardware will not be configured to your requirements and will typically involve a new base build

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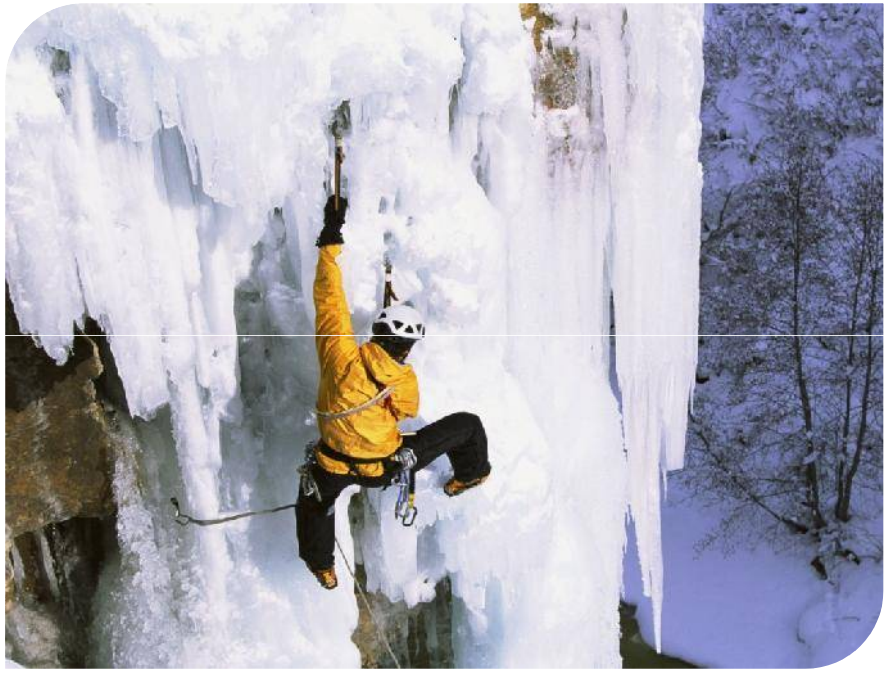
Current market trends

- The increasing move to online backup
- Cloud and Data Centers
- Economically driven trends
- Regulatory obligations are tightening



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Current Trends

1. The move to online backup

Benefits

- Outsource the risk and management to a specialist
- Increased options for recovery points (RPOs)
  - Previously only available to a select few
  - Snapshot and CDR
- Faster recovery times (RTOs)
  - Parallel vs. serial
- Data is stored offsite (if hosted in DC/Cloud, check)
- Opex vs. capex
- No need for upgrades as managed by service provider

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Risks and considerations

- You can't judge a book by it's cover – **where is your data really going and who's got access to it?**
- Make sure you've got sufficient **bandwidth** – under provision can have significant implications on data currency and recovery times
- **Data sovereignty** – "Keep it in the Land of the Long White Cloud"
- Moving your production environment to the Cloud does not guarantee your data is backed up so best to check

Plan-b Online Services: FY2009 = 0% Revenue | Today = 30% Revenue

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2. The Cloud and Data Centres

Key drivers and attractions

- Opex model removes need for future capex
- Removes need for most in-house IT staff
- Provides more flexibility

Look before you leap

- Who has control of or access to your data?
- Do your due diligence – once you're in it's hard to get out!
- Make sure you know the hidden costs
- Recoverability of data is not a certainty (particularly for single site data centres)

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Risks and misconceptions

- Data Centres and the Cloud are the answer to all your problems
- Loss of control (has future cost risks)
- If the DC has an outage, what number are you in the queue?
- If there is a failure/outage – how do you recover and onto what? How long will you be affected? These are all elements of loss of control
- Potential breach of data sovereignty regulations - only applicable to offshore providers
- One way to keep some control and eliminate some of the risk is to "*separate the accountant and the auditor*" i.e. keep Business Continuity (incl. backup) and production separate

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3. Economically-driven trends

- Given current economic challenges, businesses are increasingly looking to ***"Sweat their Assets"***
  - **Pro** – Defer capital expenditure
  - **Con** – Increased risk of failure and time to get a replacement
  - **Action** – Ensure you have immediate access to standby equipment
- ***"BC/DR Walk Through Tests"*** – paper-based tests to identify gaps in Business Continuity are becoming more common
  - Forces business units outside of IT to think about Business Continuity
  - Note – this does not replace a full test, which is the only way you will truly know your cover or exposure

4. Regulatory obligations tightening behaviour

Example from Sarbanes Oxley Regulation:

- "Corporate Officers are **liable** for Business Continuity"
  - *– Previously this was "responsible"*

Definitions:

Liable – "*legally responsible*"

Responsible – "*answerable or accountable for something within one's power, control or management*"

NZ Companies Act obligations as Directors and Officers

- (S131) Duty to Act in Good Faith and in the Best Interests of the Company
- (S135) Reckless Trading
- (S137) Director's Duty of Care & Skill

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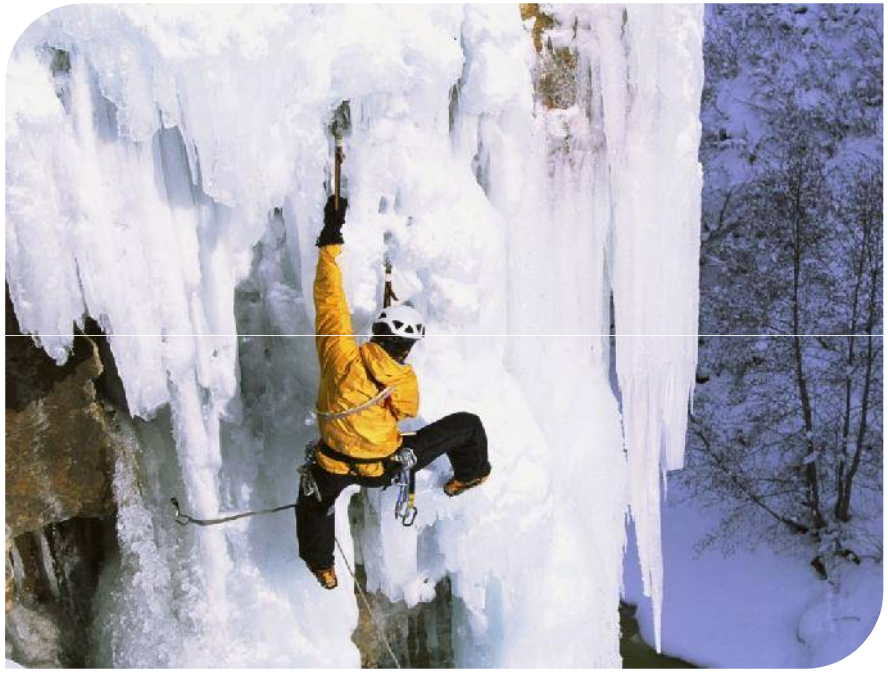
Getting back to basics

- Business Continuity 101
- Perception vs. reality – risk heat map
- Embedding Business Continuity in your culture



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Business Continuity 101

Step 1 – The Basics

- Backup your data and make sure it's stored offsite
- Make sure you have access to standby equipment to recover your backup onto
- Make sure you have access to standby office facilities and infrastructure to access your recovered data
- Test your backups and recovery of your data regularly to ensure that your backups are complete and that your data is recoverable

  It's too late to find out that it's not recoverable after the event!

Step 2 – The Wider Plan

- Get the whole business involved to determine RTOs and RPOs
- Test reality vs. perception

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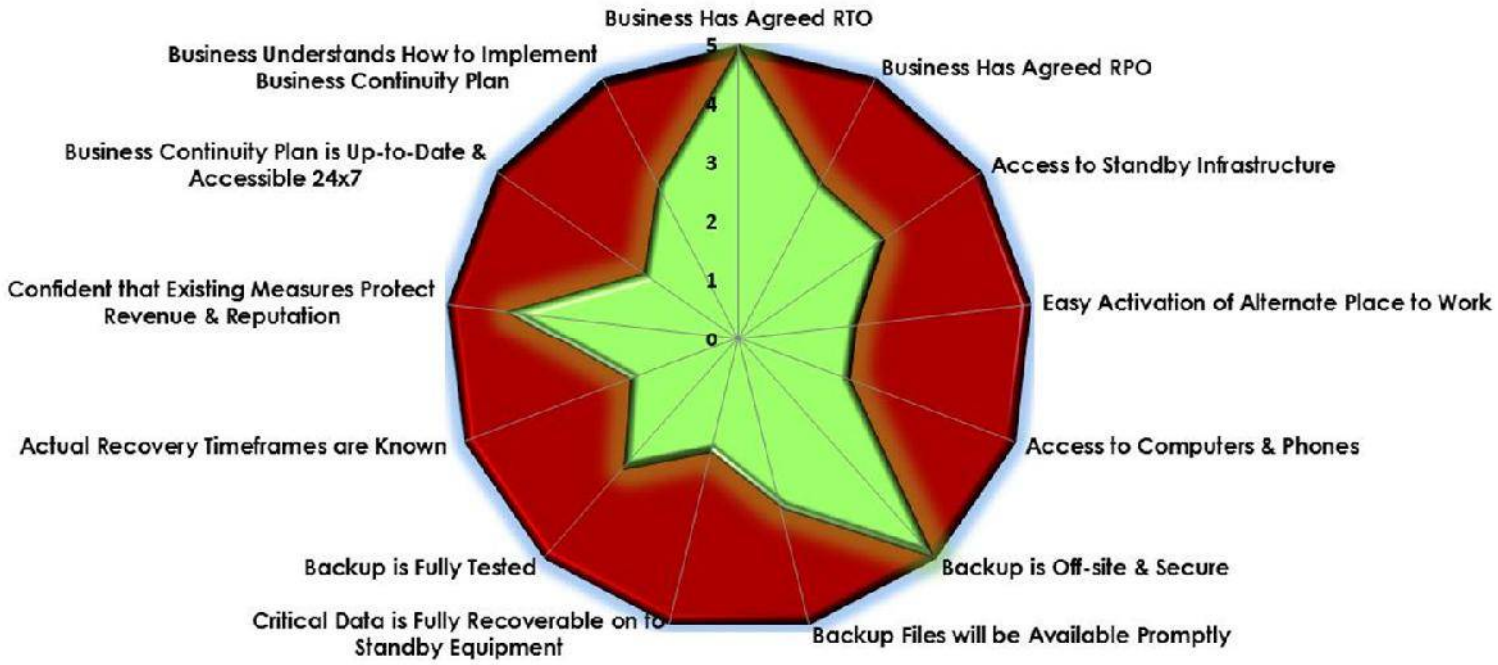
Perception vs. Reality

So just how exposed is your business really?



Listed multinational – June 2012

Find out in just 13 questions

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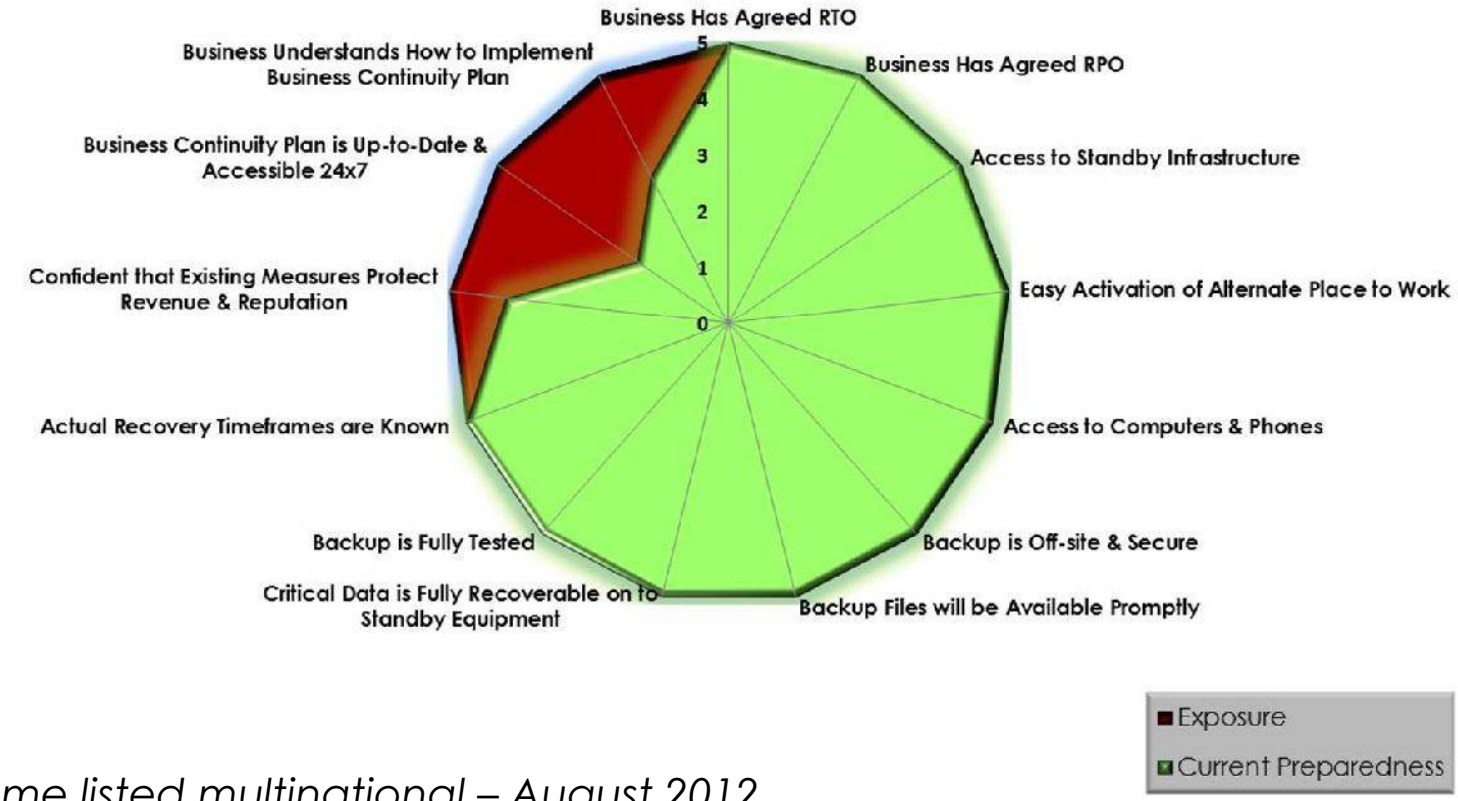
Small changes can make a big difference

You just need to know what's at stake



The same listed multinational – August 2012

Business Continuity should be embedded into your culture

Business Continuity is not something implemented at the time of a disaster, but refers to those ***activities performed daily to maintain service, consistency and recoverability across the business.***

Business Continuity keeps your business doing the business!

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EVERYONE NEEDS A PLAN

What's Yours?