



Whitepaper

From Disaster Recovery to Business Continuity

Understanding and addressing the full business
impact of IT downtime

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What happens when the lights go out?

Does your business go out with them? Natural and other disasters can strike at any time, disrupting critical business applications and leaving IT teams scrambling to resume service. A solid Disaster Recovery program is essential, but an even more effective goal is to keep your business running during an outage. Business Continuity helps you achieve this goal with solutions that deliver the infrastructure you need to protect vital systems, applications, and data.

The recent floods and cyclones emphasise the point that natural disasters wreak havoc on businesses. Yet more typical events—power blackouts from a fire down the street or backup failures because a grid went down 100 kms away—are just as disruptive, perhaps more so if you don't have a large IT team in place. Whatever size your business, evolving from the reactive Disaster Recovery model to the proactive Business Continuity model will lessen the burden on IT.

Large enterprises already invest in high-availability, resilient infrastructures that protect their business-critical applications, but many businesses still think they cannot afford a comprehensive solution. That thinking is changing now that Cloud providers, such as Macquarie Telecom, make it easier and more affordable for organisations of all sizes by offering pay as you go compute and storage. As an alternative to replicating your entire infrastructure, you can “burst” into Cloud infrastructure in the event of an outage, paying only for when the Disaster Recovery site is running.

Taking the step from Disaster Recovery to Business Continuity is easy and cost-effective with today's solutions that manage your infrastructure and ensure that you stay in business during disruptions. Taking a chance with Business Continuity is taking a chance with your business.

The impact of disasters

The most notable recent disasters in Queensland were unprecedented and demonstrated how serious a threat network downtime is. Three-quarters of the state were declared a disaster zone, affecting residents, tourism, and businesses.

One in five businesses had to close because of floods or loss of power. As a result, about 30% indicated the damage costs at between \$10,000 and \$50,000.

All in all, 22% of businesses reported that the floods had a major to critical impact on their viability with the real threat of job losses.

The average number of closure days was reported as eight days, with a median of four days. The number of days needed to resume normal work was reported by the majority of businesses (43%) to be within five days, with a further 12% within 10 days. **That leaves a staggering 45% of businesses needing more than two weeks to return to normal operations, with the median being 10 days. And surveys have shown that 10 days without access to data or data management results in companies filing for bankruptcy.**

In general, 93% of companies that lost access to their data for 10 days or more due to a disaster filed for bankruptcy within one year of the disaster. 50% of businesses that found themselves without data management for this same time period filed for bankruptcy immediately. (National Archives & Records Administration in Washington D.C., USA).

Even if bankruptcy is avoided, an outage can have a significant negative impact to a business. The inability to process, deliver, or bill orders means that revenue is being lost. While most customers show understanding when an outage is due to a major disaster, when it is self-inflicted or otherwise avoidable, many will lose patience and take their business elsewhere.

Disaster Recovery is an IT burden

Disaster recovery requires enormous effort on the part of IT, and unfortunately, sometimes IT departments themselves contribute unintentionally to disruptions, such as storing tapes next to airports with radar, failing to refuel backup generators, housing the IT department in a basement in a cyclone zone, or something as simple as an employee calling in sick and there's no one to assume that person's duties for the night.

These scenarios are presented not to blame IT departments, but rather to emphasise that prevention is better than reaction. The risk of not implementing a solid Business Continuity solution multiplies daily.

After a disaster or disruption, the following issues become the burden of IT:

- Where did the company data reside (on which servers) and what functions did they perform?
- Where did the data travel (office-to-office, laptops, Blackberrys) and how will this travelling data be reconciled back into the system?
- What happened to everyone's email when the email server went down? Were there alternative email servers in place?
- How many business, financial, legal or service transactions were lost? Was personal data or confidential identity information corrupted?
- And finally, how many Web and business applications were lost or corrupted?

Putting all the pieces back together is a nightmare. Building a great IT environment should have the support of a great Business Continuity solution.

From Disaster Recovery to Business Continuity

Business Continuity is about keeping your business running during disruptions. This model takes you from restoring to maintaining operations, from an IT function to business-wide strategies, and from backup to replicated data. This last point is a crucial element in Business Continuity because your data is replicated as close to real time as possible and can be switched on quickly and efficiently.

Business Continuity doesn't just solve a technology problem, although this is the desirable outcome. It becomes an essential business driver that maintains customers, brand integrity, and employee productivity. By protecting your vital systems and data, your business value remains high, both in service and reputation.

And because Business Continuity is an organisation-wide process, IT becomes a stakeholder rather than being expected to carry the entire responsibility. Disaster Recovery becomes just one element in a wider Business Continuity program.

Business Continuity is also about people

If you build a great IT environment but people can't always access it, all of your infrastructure design work is for naught. Without your workforce, users, and customers, your business wouldn't function. In addition to employees, there are customers who interact with you online, vendors and business partners that access your system via portals or SOA connections, and prospective customers who browse your Website.

Keeping this workforce connected to applications and data is as important as keeping the infrastructure itself running. But non-catastrophic events do occur, which impact the workforce. Events such as traffic jams, train strikes, or bushfires. Even major events, such as the 2007 APEC Summit in Sydney and the 2006 Melbourne Commonwealth Games, can impede the workforce from getting into the office or from having access to applications from other locations.

An effective Business Continuity program ensures that certain “mission-critical” applications are always available for users working from home or remote locations. Keeping your users connected during disruptions also allows important updates or the latest news of a situation to be communicated to everyone. Having everyone “in the know” reinforces the organisation-wide process.

Beyond tapes—new technologies for Business Continuity

Historically, organisations have relied on traditional backup solutions, backing up data onto tape or disk and storing them in a protected remote location. But backup itself does not provide a business continuity or high availability solution for servers, applications, and data. In addition, data growth is increasing to the point that many organisations are dealing with terabytes of nightly data backup. The cost of maintaining on or off-site storage is clearly too high.

Emerging technologies in Cloud storage and computing are changing the game by providing Business Continuity infrastructure that reduces backup and recovery costs while increasing data protection and recovery efficiency. Creating warm¹ and hot standby² infrastructures is easier and cheaper with the latest technologies. With its flexibility and scalability, Cloud storage lets you choose which storage method best fits your needs.

In addition, new technologies provide ways for you to safely and rapidly move your data to and from the Cloud. Cloud Storage Acceleration technology leverages your existing backup environment with very little disruption and delivers a fast, secure and cost-efficient way to move backups into the Cloud. When an outage occurs, disaster recovery time is greatly reduced by the acceleration technology for restoring data.

The benefits of Managed Cloud Computing

Today, enterprise-level infrastructure, including backup infrastructure, can be delivered to businesses of all sizes as a Service (Infrastructure as a Service, or IaaS). Managed Cloud computing is transforming the way IT manages infrastructure, namely delivering ways to increase capacity or add capabilities on the fly without investing in new infrastructure, training new people, or licensing new software.

The benefits for businesses are many: there is no up-front investment, you pay only for what you use, when you use it, and your IT team can reallocate resources to core business activities.

¹Hot standby: Primary and secondary backup systems run simultaneously and the data is mirrored in real time. If one server fails, the other will automatically failover and your data remains intact and current.

²Warm standby: The secondary backup runs in the background to the primary. Data is mirrored to the secondary server at regular intervals, which means there are times when both servers do not contain the exact same data.

The Cloud gives you flexibility to identify which applications or elements you chose to move. It lets you consider questions such as:

- Can your business survive without email?
- Which “must stay running” applications and infrastructure elements are essential?
- What about your phone service?
- Which users from which locations should be included in the plan?

Or, you might start moving processes that are not core to your daily business operations, such as offsite backups. You may need additional resources delivered to you during high-volume sales periods. Keeping up with compliance regulations, such as PCI-DSS for credit card transactions, requires a large investment in infrastructure. Leveraging a secure IaaS vendor with its specialist services ensures that you’re current with compliance regulations.

Business Continuity solutions from Macquarie Telecom

The Business Continuity solutions from Macquarie Telecom focus on providing secure, scalable, high-availability, fully managed hosting services for your critical applications. In addition, Macquarie Telecom offers Australia’s first enterprise-grade Managed Cloud Computing infrastructure as a Service. Take a moment to consider the benefits you’ll realise with these Business Continuity solutions.

- **Hosted Virtual Managed Disaster Recovery (DR):** Provides an affordable end-to-end managed IT solution to provide further levels of availability for your business-critical online applications. A replica of your production environment is built on a leveraged virtual hosting server platform, located at an alternate interstate certified dedicated hosting facility. Complete with true Internet failover capability. You benefit from lower risk of down time, compliance with regulatory requirements, and flexibility and scalability to meet the needs of your organisation.
- **Hosted Managed Storage:** Offers a monitored and managed hosted storage service that lends agility to your organisation with its multi-tiered storage capability. You’re provided with fully redundant and highly accredited data centres, 24/7 access to technical specialists, and specialised project management services.
- **Storage Area Network (SAN to SAN) Replication:** SAN provides a centrally managed, scalable, high availability and high performance data storage on-demand infrastructure for critical performance applications. It allows file sharing across networks, multiple servers to access the same files simultaneously via cluster services, and offers complete maintenance and 24/7 support with a dedicated solution design team and a Project Manager.
- **Flexible Enterprise-grade Managed Cloud Computing:** Always Ready Cloud, Australia’s first enterprise-class infrastructure as a Service, lets you expand and contract your Web, applications, or data capacity when you need it, paying only for the time you use it. You can “burst” into the Cloud from your own data centre, or dedicated, virtual or co-located servers already hosted by Macquarie Telecom. Your IT becomes more flexible and economical by being able to expand and contract on demand when you need extra capacity for additional users, planned or unplanned peaks, and test or demo servers.

All of the Macquarie Telecom Business Continuity solutions provide the highest quality infrastructure and security solutions to maintain operations in the event of outages and disruptions by replicating data and production environments on dedicated or virtual hosting server platforms, or by utilising enterprise-grade Managed Cloud Computing delivered as a Service.

Don't hesitate to protect your business

Current Disaster Recovery solutions help to a point, but Business Continuity solutions provide enterprise-level and enterprise-wide solutions that are efficient, flexible, and cost effective. Business Continuity aims to maintain operations in the event of outages and disruptions by replicating data and production environments as close to real time as possible on dedicated or virtual hosting server platforms.

Macquarie Telecom makes Business Continuity even easier and more affordable by offering pay as you go compute and storage. Instead of having to replicate your entire infrastructure, you can burst into Cloud infrastructure in the event of an outage, paying only for when the DR site is running. Your IT team will have the support and on-demand infrastructure it needs to protect and, if necessary, easily recover business-critical applications, data, and employee connectivity.

As a business, the consequences are far too great to ignore or hope that a disaster or outage won't happen to you. By maximising Business Continuity, you gain a valuable business driver—the ability to maintain customers, brand identity, and employee productivity.

To find out more, please call us on 1800 003 238.

About Macquarie Telecom

Founded in 1992, Macquarie Telecom (ASX:MAQ) is Australia's number one Managed Hosting and Business-only telecommunications company. Macquarie Telecom is a full-service hosting provider, combining Business-Grade full line (Voice, Data & Mobile) Telecommunications with managed Hosting services. Macquarie Telecom's offerings are underpinned by world-class customer care, which is delivered by MacquarieHUB.

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