

## White Paper:

# Business Continuity

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# Business continuity in a data protection society

## Introduction

A suitable and effective plan to combat disaster is vital in the day to day continuity of every organisation on Earth.

Planning business continuity is planning for the unexpected. If procedures are performed correctly it should minimise the effects of disaster on a business, enabling quick and efficient recovery.

In light of the catastrophic events of the last decade, solid business continuity plans remain a prominent topic.

The impact of 9/11 showed businesses exactly how an unexpected incident causes catastrophe as data loss repercussions echoed around the globe for years afterwards.

Additionally, natural disasters such as tsunamis, hurricanes or floods (which are arguably becoming more frequent due to the warming of the planet) show how damage to hardware causes severe issue to the daily running of an organisation when so many rely on technology to function effectively.

## The online disaster recovery plan

A thorough plan for disaster recovery should envelope all aspects of business, from regaining access to data, to accessing suitable technology, finding space to operate from, and replacing key members of staff.

Online, business continuity relates to the uptime of the servers which operate databases and websites, as well as the protection of stored data. These aspects are vital to helping an organisation to function successfully. Hardware failure from physical disaster as well as cyber threats such as viruses and hackers can cause severe downtime and data losses for online business.

Downtime causes disruption to websites and database activity. Ecommerce sites cease to operate and the quality of customer experience decreases for website users. This can be extremely negative to the public image of a business. Reportedly, online shoppers wait an average of only four seconds for a website to load before deserting it and taking their business elsewhere.<sup>1</sup>

So if a website doesn't load at all, the effects on business can be catastrophic. This is especially important as 9 out of 10 businesses in Europe are now using the internet, showing a high online reliability.<sup>2</sup>

Migration towards internet business is a common theme for both companies and consumers and more information than ever before is stored online, posing an even greater risk from cyber threats.

## Online data protection and loss prevention

If server storage hardware is corrupted due to a disaster situation, data becomes inaccessible. Therefore, the importance of information backup is apparent.

Loss of data can be the cause of widespread problems throughout a business. Losing information means massive decreases in staff productivity for employees who cannot continue tasks without important data.

Data loss also poses complications with regards to the Data Protection Act. It states that customer information must be "kept secure with appropriate technical and organisational measures taken to protect the information".

Firewalls and patches should be installed and updated regularly as the first line of defence in the battle to protect online data because almost as quickly as new security solutions are created, hackers and viruses attempt to breach them.

Cyber threats are increasingly complex and growing in number, while malicious Internet worms and DDoS attacks in particular are on the increase. Across the World, DDoS attacks grew by 400 per cent last year and they can be incredibly difficult to both identify and block. Successful attacks literally paralyse victims, preventing them from conducting business, which on a global scale costs over a billion pounds each year in lost revenue.

Business continuity plans should also encompass preventative measures because prevention is infinitely better than the cure. Of companies that have a major loss of computerised records, 43% never reopen, 51% close within two years, and only 6% survive long-term.

## Types of online business continuity solution

### Replication

Information stored online should be replicated and stored on another server to prevent data loss and aid business continuity. A server solution is made even more robust if the replicated information is stored on a server in a different location to the original - for example, in a different data centre in another city or country.

The benefits to replication of data over multiple locations is that it provides no single point of failure. So if the primary location server ceases to function due to attack or natural disaster, information is readily available from the other servers.

Replication software available ranges from the simple copying of files, to providing automatic failover to another server. Non-automatic replication software copies information and in the event of data loss information has to be manually uploaded causing downtime for businesses. Servers could be offline for several hours but this is preferable to the permanent damage of total data loss because of no replication whatsoever.

However, for mission critical projects where downtime cannot be tolerated, a company can decide to implement replication software with automatic failover. The program copies all information and informs secondary servers of when to start work if the primary hardware fails. With this solution, a business experiences no downtime in the event of a disaster.

### Load balancing

Load balancing is another manner in which to make your server network more robust. The more chances a server has to failover the more likely it is for online business to continue. In a similar manner, the more servers a network has supporting each other and working to a unified purpose, the less likely the network is to fail.

Busy websites typically employ two or more web servers in a load balancing scheme. If one server takes on a lot of work, requests are forwarded to another which provides further capacity.

Once the load balancer detects a problem with either web server, it automatically takes it from the cluster allowing maintenance to be carried out. Once completed, the server can be put back into the cluster and load balancing and business continue as normal.

The load balanced solution is specifically designed to cope with one of a cluster of servers being taken out without affecting the service provided to the users – once again providing no single point of failure.

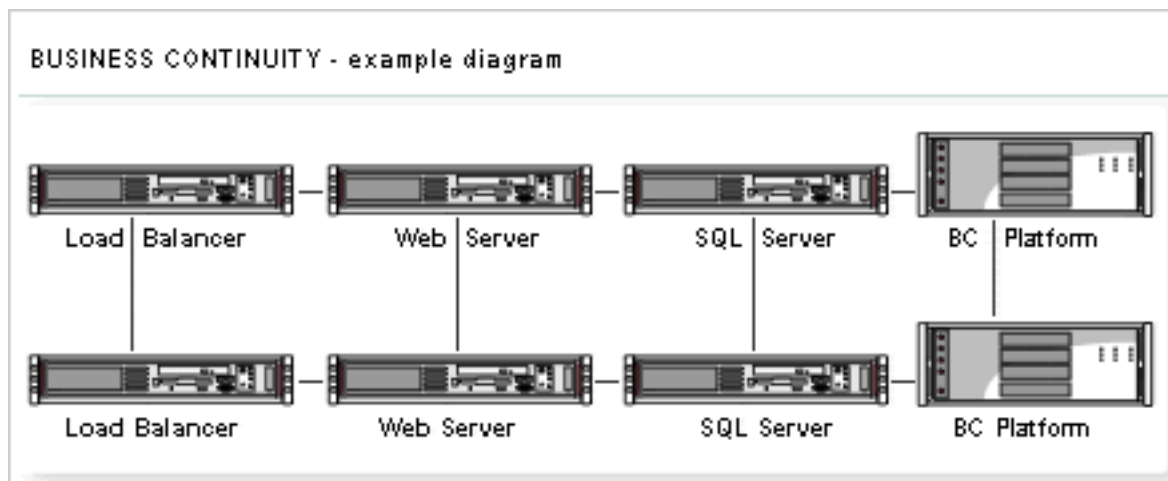
The benefits of load balancing, in short:

- If the load balancer detects a problem with one web server, it will automatically take it out of the cluster until it is working again.
- If maintenance is needed a server can be taken out and replaced into the cluster without affecting server users.
- If the master load balancer fails, the slave unit automatically and smoothly takes over.

### The UKFast Business Continuity Platform

Plugging into the Business Continuity Platform is designed to ensure 100% uptime even in the event of total catastrophe.

It acts as an extra server to which vital data can be replicated, provides backup and performs all the functions of the dedicated server solution in the event of a disaster. The platform works within a sophisticated server solution or takes away the need to put a multiple server solution in place, saving power, data centre space and money.



The UKFast Business Continuity Platform knows as soon as a business's server fails, because the platform is linked directly. So in the event of a failure the platform continues to run applications as soon as they cease on the usual server.

In this scenario all data is completely safe and accessible, so a business is ensured total business continuity.

## Conclusion

For an online business continuity plan, the general rule is to backup data, install firewalls and update patches regularly whilst making the business server network as robust as possible.

The more chances a server has to failover to another where the applications can be performed to the same standard, the less chance of downtime. Additionally, if a network is able to failover to different locations the chance of business continuity is increased further.

And plugging into a Business Continuity Platform ensures 100% uptime as a further network which acts exactly as the original in the event of catastrophe. It includes automatic failover so data is always available and businesses are able to continue as usual even in the worst of situations.

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1. [http://66.102.9.104/search?q=cache:Y\\_v6-Oce3qAJ:www.enterprisequest.com/news/2006/11/mon\\_impatient\\_shoppers\\_desert.html+impatient+shoppers+desert&hl=en&ct=clnk&cd=1&gl=uk](http://66.102.9.104/search?q=cache:Y_v6-Oce3qAJ:www.enterprisequest.com/news/2006/11/mon_impatient_shoppers_desert.html+impatient+shoppers+desert&hl=en&ct=clnk&cd=1&gl=uk)

2. <http://66.102.9.104/search?q=cache:BZr7mSbJGtEJ:www.nomensa.com/news/industry-news/2005/5/number-of-businesses-online-boosted.html+number+of+business+online+boosted&hl=en&ct=clnk&cd=1&gl=uk>

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