Disaster recovery and verification

If your business suffered a major server failure, would you be able to recover lost data? If so, how long would it take to be fully operational again? For most organisations, the loss of even one day's worth of data could be disastrous.

However, many of these organisations fail to implement an appropriate disaster recovery plan because it's perceived as being too costly, too time consuming and too hard. Businesses like this are running the risk of a major disruption to their business continuity, with the potential loss of significant amounts of money, market share and reputation.

Put simply, most businesses want to know three things:

1. Is our data safe?
2. Can it be recovered easily?
3. If so, how long until we're up and running again?

To answer these questions, we must address the **Recovery Time Objective (RTO)** and **Recovery Point Objective (RPO)** of each business.

Recovery Time Objective is based on the length of time your business could reasonably afford to be without access to telephone calls, email, critical files or and the CRM company databases.

Recovery Point Objective is concerned with the question of how much data your business could afford to lose in the event of a major server failure.

Obviously, an extremely fast recovery time and minimal data loss is the preference for every business, however this comes at a cost. Such speed of recovery requires complete replication of the IT infrastructure at a second off-site data centre, plus a constant stream of data replication to that second site.

However, most businesses don't require these levels of RTO and RPO. They simply need to recover from a server failure within a reasonable time frame (1-2 days) and prevent significant data loss.

So how can this be achieved for a reasonable investment? And can we verify that the recovery process will actually work? Addressing these questions is the key to establishing a successful business continuity plan.

Disaster recovery solutions

There are many disaster recovery options available, ranging from relatively simple to highly complex. However, the solution chosen is usually determined by how much a business is willing to invest to insure itself against a potential IT disaster.

Virtualisation

Utilising virtualisation technology allows for a cost effective and efficient platform for your business continuity plan to be built on. The virtualisation platform provides your disaster recovery plan provides two major benefits, including:

1. Your IT infrastructure is separated from the physical server's bare metal, meaning it can be migrated quickly and easily from one server to another in case of failure.

2. Your IT infrastructure is hosted by a Virtual Machine (VM) server in a secure off-site data centre.

After establishing a reliable network connection between your primary and recovery sites, and running an initial full data backup, regular smaller backups can be programmed in line with your RPO. Controlling cost now becomes an issue of risk assessment and RTO.

For a low cost solution, you are performing backups only and don't have agreements in place with your recovery centre for hosting recovered systems. Your risk is obviously higher and recovery from a failure will take longer. For a high cost solution, you may enjoy agreements that allow you to host your IT infrastructure in the recovery centre at a moment's notice.

Another good strategy involves **hosting your development environment** at your recovery site. In the event of a disaster, all your development VMs can be powered down and your production systems can be restored/recovered to the development environment.

You may not enjoy full and immediate production capacity, but your essential business services would be up and running in hours, not days or weeks. Plus, it allows your business to utilise the investment in the infrastructure to host your recovery site as a development platform.

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Please refer to Crosspoint's **"The virtue of virtualisation"** White Paper for more information on the benefits of virtualisation for disaster recovery.

Verification

Put simply, a successful business continuity plan is one that works. That's why it's essential to conduct full business continuity testing and verification on a regular basis. This may involve re-locating staff to a temporary office, making sure that computers, network access and telephone services are available and functioning.

Adopting a virtualisation strategy for both your production and development system provides you with a relatively simple way of regularly testing your recovery procedures.

Simply restore your production VMs to the development infrastructure and test remotely for full functionality. This way, recovery testing will only impact your development teams..

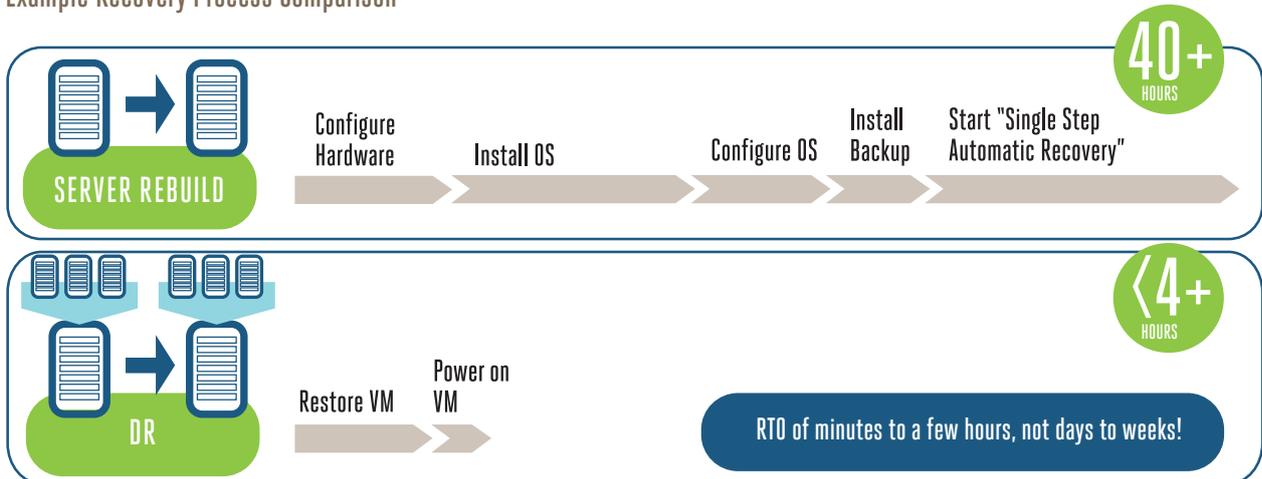## Telephony and disaster recovery

One of the biggest issues for any IT department is the recovery of telephony services. Many organisations are in the process of transitioning from legacy PBX's to IP PBX's/IP Telephony (IPT) solutions.

One of the key advantages of an IPT solution is that in the event of a system failure, organisations are able to take advantage of traditional server based redundancy and replication methodologies to reach new levels of redundancy not possible in a cost effective manner with traditional PBX environments.

In the unlikely event of a complete site disaster; IPT solutions may offer the ability for staff to work remotely utilising PC soft-phone software or mobile SIP client to enable your business to re-commence operations quickly and efficiently.

For further information on VoIP telephony solutions and their role in effective disaster recovery, please refer to Crosspoint's **"Managed Telephony"** White Paper.

Example Recovery Process Comparison

SERVER REBUILD → Configure Hardware → Install OS → Configure OS → Install Backup → Start "Single Step Automatic Recovery" — **40+ HOURS**

DR → Restore VM → Power on VM — **<4+ HOURS**

RTO of minutes to a few hours, not days to weeks!

Conclusion

Business continuity and disaster recovery are critical issues for any IT department. Guaranteeing the security of your data, knowing that lost data can be recovered in the event of server failure, and having the ability to quickly get your business up and running again, should be priorities for any organisation.

That's why a fully tested disaster recovery and verification plan needs to be implemented. Without one, your business could lose significant amounts of data in an instant.

Virtualisation technology and IPT voice solutions are now enabling businesses to establish secure, efficient and cost effective disaster recovery plans. By separating your organisation's IT infrastructure from its physical server and hosting it at an off-site data centre, you can reduce the risk of data loss in the event of a disaster, as well as experience minimal downtime for your essential business operations.
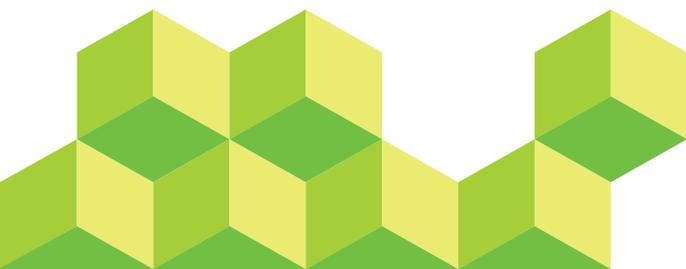
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