System recovery

How a system back-up can save your company from disaster   **Interviewed by Chelan David**

Diligently backing up computer networks is a critical component to ensuring business continuity. If a company is unprepared and a disaster strikes, the recovery process could be painful and potentially crippling.

Having an effective system in place to recover intellectual property is akin to an insurance policy; hopefully you won't need it any time soon but having one in place is mandatory. Hormazd Dalal, president of Castellan Inc., says, "[Data recovery is] a lot of work if your backups are good, and it's close to impossible if you don't have good backup."

Smart Business spoke with Dalal about the best practices involved with backing up intellectual property, what data should be backed up and what some of the different recovery scenarios are.

What are some of the best practices for backing up intellectual property?

There are two major kinds of backup: incremental and full. Incremental backup is where you only back up the data that has changed. This is something that was very popular about five to six years ago when backup devices were more expensive and capacity was hard to find.

Now that the prices of backup devices have dropped, we recommend full backup, which means backing up your entire data every single day. [Solutions include] a single tape or tape changer and one person who's assigned to swap tapes every day. This is the only realistic way of making sure that your intellectual property gets taken off site.

Another solution is a hardware appliance which makes a real-time backup of your data as you make changes to it.

What specific intellectual property should be backed up?

Everything that you consider important to you. This also includes infrastructure data like the directory of users, security permission, etc. E-mail should all be backed up and databases like Oracle and SQL should be backed up. Don't forget your accounting application, either.

Hormazd Dalal
President
Castellan Inc.

Why is it important that the infrastructure information is backed up?

It's important because in the event of a disaster, you don't have to rebuild your network. If the directory is backed up, it can be restored with its permissions for each user. Without these permissions, e-mail or applications will fail.

In the event of a disaster, what are some of the recovery scenarios?

It depends on the kind of disaster. If your servers are completely destroyed and inoperable, then you have to purchase a brand new server, install the latest operating system and then restore all of the data.

If you have custom applications, then you need to make sure that whichever vendor is maintaining them has the ability to reinstall the application. The data, which is presumably on tape because you backed it up, will enable you to restore the information.

With regard to e-mail, if you lose just a few important e-mails, it is possible to restore them, provided that you implemented brick-level backup. This backs up each e-mail box separately rather than the entire database, allowing the restoration of a single mailbox. The downside of this is

that it takes up a lot of time because you have to back up everything twice. Another solution is to implement a script, which will export mail out to special files, which can then be restored.

How long can a business expect the recovery process to take?

If you've just lost one file, between a few minutes to a half-hour. If you've lost a server, between eight hours and 24 hours.

And if you've lost your entire network of, say, five servers and the entire work station, it can take eight to 12 hours per server and one to two hours per work station.

What would you advise a company that is down for an extended period of time with deadlines looming?

Call a professional — that makes it possible to get certain systems up and running. You may not have access to your old data, but can continue working on e-mail and create new documents.

There are ways to mitigate server crashes. They are very expensive, but you can cluster your servers so that if one fails, the other will keep working.

If a company does not have a backup system in place to protect its intellectual property due to budget concerns, what would you advise?

It's the most important thing in any network — this is where they should be spending their money. It's unacceptable not to be backing up data. They have to find the budget to back up their data. Remember that your information is stored on devices with moving parts, and eventually, they will fail. Backing up data is the most important aspect of IT.

A disaster by definition is unanticipated. A proper backup solution means that a disaster affects your company for hours or days.

Without the backup solution, will your company open its doors again?

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