

Backup vs. Replication

What is the difference, and do you need both?

Introduction

Backup has been around for decades, but with new technologies emerging to help save data, replication has become the new kid on the block. It's important to recognize the difference between the two and what it means for a business. Does the company need backup, or does it need replication? Would it benefit to have both? Here is a side by side comparison of the two to help better understand the difference.



Backup: a point in time copy of the environment that is stored in an archive

Pros:

- + Backup files can be compressed to save space and exist on slower, cheaper, commodity storage.
- + Backup files can be recovered for as long as you wish to retain the archive.

Cons:

- Operations can consume large amounts of bandwidth and utilize server resources to accomplish the task.
- The amount of change data that has to be processed and archived are larger.



Replication: A near real-time copy of the production environment that is stored in the same format as the original environment.

Pros:

- + Replication reduces the time it takes to bring the production environment back online.
- + Replication copies are much more recent than a point in time backup.

Cons:

- Data is typically stored on expensive production storage.
- Data is much more susceptible to corruption because it is near real-time & before it is noticed in the environment.

When data loss occurs.

For backups, you retrieve your data from the last backup you took.

Most companies typically do a daily backup, and you can restore data from the previous day. Between the time of backup and the data loss "event," however, any new data might be lost and cannot be recovered. Data recovery from backup is a much slower process than replication fail over. Backups are copied and stored in an archive format that is understood only by the backup application and must be translated to a usable form. Those archives are usually on much slower storage and can take hours to copy into the production storage and be usable.

For Replication, you can retrieve your data a/most instantly from the point of data loss.

The replication software continuously copies/mirrors your data in a way that is directly understood by your environment (database, email server, etc.). No translation is needed as it is for backups. Restoring your environment takes seconds to minutes, depending on your data protection set up. However, logical corruption presents a real problem with live replicated data. Ransomware, damaged databases, and malicious actions can replicate to your recovery environment just as well as the good data. If they are not caught in time, a recovery to a point in time backup can be necessary.

Do you need backup and replication together?

That depends on how you want your business to operate in the event of data loss. All applications may not need to have real time replication but just having a backup copy for all applications may not be enough. Determining the value of your applications to your business is key when choosing how to proceed in protecting your business' data. A popular option is to backup the entire environment but layer real time replication onto your critical applications.

If you have any questions about Cloud Backup or Replication, please contact sales@n3t.com or [Request More Info](#).

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