

## [Immutable backup storage - the last line of defence](#)

### Breadcrumb

1. [Home](#) /
2. [Print](#) /
3. [Pdf](#) /
4. [Node](#) /
5. [Entity Print](#)

### Insight navigation

- [Latest insights](#)
- [Latest news](#)
- [Articles](#)
- [Case studies](#)

[Download PDF](#)

Apr 2024

## Immutable backup storage - the last line of defence

We all know that using an air gap within a backup solution to put space between you and cyber criminals is vital, but with discussion around the security – or lack thereof - of data more prevalent than ever, we wanted to share insight into immutable backup storage and how it can support your business.

Categories [Data & Analytics](#), [Data Protection and GDPR](#), [Technology Consulting](#)

Apr 2024

- 
- 
- 
- 



### [Chris Anderson](#)

Lead Solutions Architect: Infrastructure

#### Email

[chris.anderson@waterstons.com](mailto:chris.anderson@waterstons.com)

#### LinkedIn

<https://www.linkedin.com/in/chris-anderson-4350358b/>

#### What does immutable mean?

The definition of immutable is 'unable to be changed'; immutable backups are therefore backups that cannot be altered, meaning

they are safe from unauthorised change or deletion.

### **Why is it crucial to backup infrastructure?**

The industry standard approach to backups observes the 3-2-1 backup rule:

- 3 copies of production data are maintained across
- 2 different types of media with
- 1 copy offsite.

This has recently been developed to 3-2-1-1-0 (snappy, we know), incorporating 1 immutable copy of data and 0 errors throughout the backup environment.

With the continued increase in ransomware attacks, and threat actors actively targeting backup data, the integrity of the backup data is critical for recovery.

### **How can I achieve backup immutability?**

Introducing immutable cloud storage satisfies this requirement and provides a 'last line of defence' mechanism in the event of malicious cyber activity.

We recently announced a partnership with Wasabi to do just that – offering offsite *and* immutable data backup (two birds, one stone) using Wasabi, with Veeam Backup and Replication.

The low TCO with cloud storage also enables a suitable repository for long-term GFS (grandfather-father-son) data retention.

As Wasabi does not charge for data ingress or egress, it provides a predictable, cost-effective cloud storage platform.

### **What else can be leveraged?**

As Veeam VASP, our go-to backup product is Veeam Backup and Replication, which also supports the Linux Hardened Repository. Veeam's technology leverages the XFS file system to facilitate backup immutability, but – as we've said before - tape is not dead yet!

Rotated tape media provides a fully air-gapped copy of data and still provides a use-case.

To find out more about data and storage backups, get in touch with [chris.anderson@waterstons.com](mailto:chris.anderson@waterstons.com)