

PERFECTING THE **BACKUP-ARCHIVE BALANCE**

Your Guide to Building Complementary
Backup and Archive Strategies

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DATA GROWTH: IT CAN'T BE STOPPED

If there's one universal truth that pervades all organisations, no matter the size, sector or specialty, it very well may be this: Data growth is a force to be reckoned with.

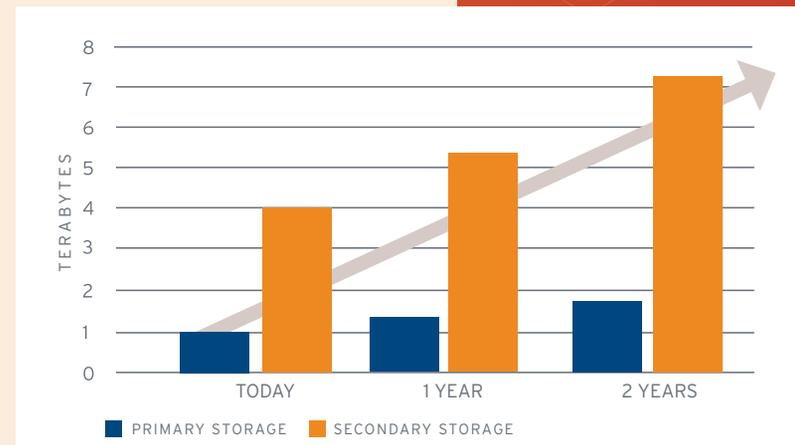
As [ESG research notes](#), both primary and secondary/tertiary storage are growing by roughly 35% every year.¹ And when you consider that for every 1 TB of primary storage, organisations can create between 4 TB and 6 TB of secondary copies for backup purposes, runaway data growth can quickly push storage into unsustainable territory.



Just consider this example:

A company has 1 TB of primary storage and 4 TB of secondary storage today. Thanks to 35% data growth, those totals will climb to 1.35 TB and 5.4 TB, respectively, by next year. And the year after that, the organisation will need to manage 1.82 TB of primary storage and 7.3 TB of secondary data.

As you can see, the longer data growth goes unchecked, the worse the situation will get. Even in businesses where IT budgets are on the rise, they will surely struggle to keep pace with increasing storage volumes.



SO WHAT ARE YOU TO DO?

In this eBook, we'll show you. You'll learn how to balance backup and archive best practices in order to more effectively – and appropriately – protect and preserve your organisation's critical data. [Let's get started.](#)

¹ ESG. "Backup and Archive Convergence Trends." April 2014.

ARCHIVING CAN HELP TAME DATA GROWTH

Backups have been – and remain – a critical facet of every organisation’s operations. They’re a fact of life, a task most all IT administrators have executed at one time or another.

And yet, there is another, equally as valuable strategy IT teams could be employing to protect and preserve information. But, sadly, it’s something that rarely moves from “should do” to “need to do” territory: Archiving.

Even though IT managers will cite a lack of time or insufficient budgets as a roadblock to building an archiving practice, the truth is that **businesses need archiving just as much as they need backups.**

Why?

Because **archiving can actually remove some of the burden from backup operations** – once you move data to an archive, there’s no need to back it up again. And data that’s been archived doesn’t need to be included in hourly or nightly backups anymore, nor do you need to keep adding duplicates of it into your secondary storage pool.

But when is it right to archive something and when should you back it up?

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from backup operations – move
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need to back it up.**

TO BACK-UP OR ARCHIVE, THAT IS THE QUESTION

Backup and archiving are in many ways focused on a similar goal – retaining data in order to make it accessible at a later date. That said, each is used for different purposes by different people.

We typically back-up data in order to help the organisation achieve a positive operational impact – namely, quickly restoring operations in the event of a disaster. Individuals responsible for ensuring the recoverability of production servers and storage systems are the ones who frequently execute backups.

On the other hand, **data is archived because it has long-term strategic value to the business** or may be required to satisfy an external legal or regulatory request at a later date.

Application owners, business-unit heads and legal, risk and compliance officers – individuals who view information as an asset and want to preserve it for compliance, legal or operational functions – tend to tap into the archive regularly.



KNOW THE “THREE Rs”

Wondering whether you should back-up data or send it to an archive? Let the “three Rs” guide you:

- » **Recovery → backup.** Restoring a previous version of active data following accidental deletion, corruption, inaccuracy, etc., necessitates a backup.
- » **Retention → archival preservation.** Retaining data because it has inherent long-term relevance calls for archival preservation.
- » **Reclamation → archival grooming.** Removing stagnant data from expensive primary storage and sending it to an archiving platform requires archival grooming.

THE PROBLEM WITH “BACKUP-AS-ARCHIVE”

When it comes to backup and archiving, there is no single approach that covers both activities. In fact, the inherent differences between the two mean that “backup-as-archive” is not a sustainable strategy.

Think about it this way:

Servers rarely need to be restored using years-old backups. But **data from one, three or even seven years ago is often required to address specific business or compliance purposes.** The need to retrieve this information to help the organisation execute new strategies or uphold its regulatory obligations highlights the importance of an archive.

Although a backup is created as a recovery tool, as time goes on, it may remain the place to go to get an older reference copy of data. And because of that situation, organisations tend to treat backups as de facto archives.

What’s problematic about this perspective is that the **data on backup media has no real referenceable value** – it was meant for software platforms, not people, to read. As such, **it cannot be trusted to support the same goals as data stored specifically for archival purposes.**



NO ARCHIVE? IT’S A RISKY PROPOSITION

It’s important to recognise the financial risk associated with the “backup-as-archive” approach. For example, maintaining it can:



» Cause production servers and storage systems to become bogged down by considerable amounts of data, leading to poor performance, inefficient resource utilisation and overly long backup times



» Lead to higher labour costs during eDiscovery or regulatory exercises, as well as steep financial penalties if the required data isn’t found

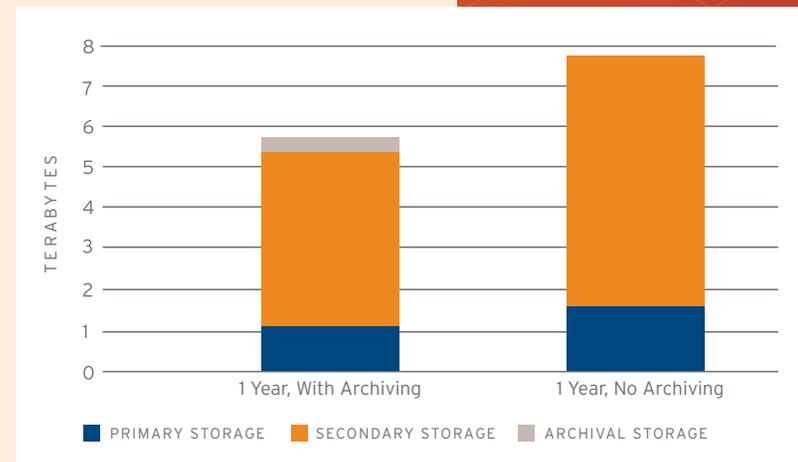
REAPING THE VALUE OF ARCHIVING

In addition to helping your organisation preserve and quickly access data for business, discovery or compliance purposes, archiving can also help lessen the burden on the backup environment.



Recall our example from earlier – an organisation with 1 TB of production storage and 4 TB of associated protection storage, totalling 5 TB and growing at 35% per year.

If the company uses reclamation (or archival grooming) to put older, inactive data – 30% in this instance – into an archive, it will only need to manage 700 GB of primary storage and 2.8 TB of protection storage today. Even with 35% growth, the next year will see 945 GB of primary storage, 3.8 TB of secondary storage and 300 GB of archival storage, totalling just 5.025 TB.



When you compare these totals to the one-year growth results from the earlier example, the value of archiving becomes immediately clear. In this case, archiving has reduced the one-year total by roughly 25% (5.025 TB vs. 6.75 TB).

ACHIEVING THE BACKUP-ARCHIVE BALANCE IS AN ENTERPRISE-WIDE EFFORT

In order to build a strategy that uses backup and archiving technologies in an effective, complementary manner, it's important for you to think about why your organisation is keeping particular data sets and who will use the copies.

To that end, be sure to:

- » Involve business stakeholders, application and data owners, legal and compliance personnel, records management employees and IT staff in a shared conversation about what should be kept, for what purpose and how long
- » Quantify the ramifications of doing nothing – of letting storage grow unfettered and creating the potential that you're unable to retrieve the data requested by regulatory bodies or required during eDiscovery

Successfully execute these two tasks and you will have laid the groundwork for a broader data protection strategy that incorporates both backup and archiving.

READY TO GET STARTED?

If you'd like to learn more about archiving and the benefits it can bring to your organisation, sign up to watch our webinar, "Everyone Should Archive, but How and with Whom?"

Want to know the best ways to keep your tape archive relevant?
Check out "7 Ways to Future-Proof Your Archive."

INFORMATION IS...

EVERYTHING

ABOUT IRON MOUNTAIN

Iron Mountain Incorporated (NYSE: IRM) provides information management services that help organisations lower the costs, risks and inefficiencies of managing their physical and digital data. Founded in 1951, Iron Mountain manages billions of information assets, including backup and archival data, electronic records, document imaging, business records, secure shredding, and more, for organisations around the world. Visit the company website at www.ironmountain.com for more information.

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