



ConversationalGeek

Conversational Microsoft 365 Backups

Nick Cavalancia (4-time Microsoft MVP)

MICROSOFT 365 BACKUP STRATEGY

- ~~PRINT ONE OF EVERYTHING~~
- ~~PSTs~~
- ~~ON-PREM BACKUPS~~
- ~~TELL USERS DON'T DELETE ANYTHING~~
- ~~HOPE MICROSOFT HAS IT COVERED~~



Learn about:

- Why Microsoft 365 needs to be backed up and how Microsoft isn't responsible
- What needs to be backed up and why BaaS is the best option for cloud-native workloads

5th
MINI
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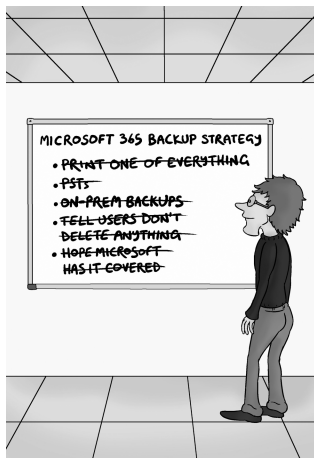


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Within these boxes I can share just about anything on the subject at hand Read 'em!

You Need To Back Up Microsoft 365



“Do you have a copy of that email I deleted?”

It's pretty safe to guess your organization is already using Microsoft 365. With over 400 million active users¹, it means that a majority of businesses are using Microsoft 365 in one form or another. The

¹ Microsoft, Q2 FY24 Earnings Call

shift from traditional on-prem enterprise applications, such as Exchange, SharePoint, and even file services, has taken the burdens of implementing, managing, maintaining, securing, and upgrading off the shoulders of IT and placed them very firmly on Microsoft through the use of Exchange Online, SharePoint Online, OneDrive for Business, and Teams. In addition, supporting services like Microsoft 365 Groups enables cross-application access for those wishing to collaborate.

But, as with each data set critical to business operations, there's always the pressing issue of whether the data is protected or not. And, even in the case of Microsoft 365, there is a question you should have a very good answer to...

Why Back Up Microsoft 365?

It's amazing how so many IT folks I meet look at me funny when posed with the question "*Do you back up your Microsoft 365 environment?*" I think part of the reason is the assumed deferral of backup responsibility to a SaaS application vendor most experience when using any service in the cloud. And

the other part likely revolves around “*gee... I never thought about it.*”

There are a number of reasons you need to backup the data within Microsoft 365 that your organization relies upon:

- 1) **It's Your Data** – The emails, documents, conversations, lists, etc. you put into Microsoft 365 are still owned by your organization. If we were talking about, say, an on-prem Exchange server, you'd certainly be accepting responsibility for backups. All that's changed is: *someone else manages the hardware and applications*. Therefore, you're still responsible for your own data. Microsoft's own Services Agreement even states: “*We don't claim ownership of Your Content. Your Content remains Your Content and you are responsible for it.*”²
- 2) **Data Gets Deleted** – Sure, applications like Exchange Online, SharePoint Online,

² <https://www.microsoft.com/en-us/servicesagreement>

and OneDrive have deleted-item retention, but that only works if the user realizes the need for the deleted item(s) within the allowed time period – which can be as little as 2 weeks.

- 3) **Ransomware and Other Cyberattacks** – Don't think that ransomware can't reach your Microsoft 365 data. Take the simple example of files synced via OneDrive to a local endpoint that become part of a ransomware attack. When the local files are encrypted, their online counterparts sync up and become equally inaccessible.



A ransomware attack on the government offices in a borough in Alaska wiped out their Exchange data entirely, causing them to set up a greenfield installation due to a lack of backups. It also impacted 500 endpoints and 120 servers. To stay operational, they literally resorted to using typewriters!

In addition to ransomware, there are other types of cyberattacks that involve Microsoft 365 – it's constantly the target of credential harvesting attacks that solely rely on social engineering and spoofed logon pages. Compromised credentials put any and all data in Microsoft 365 (as well as any other cloud service) at risk of deletion, manipulation, encryption, etc.

Lastly there are attacks intent on gaining access to mailboxes within Microsoft 365, but instead of focusing on credentials (which can be rendered useless with a simple password update), more sophisticated attackers leverage OAuth (the open standard for access delegation to cloud resources). This kind of an attack establishes a level of access and persistence to Microsoft 365 applications and data resources that extends well beyond just Exchange Online and well past a password change.



OAuth attacks provide access to Exchange, SharePoint, and OneDrive separate from the access granted to the user. So even if the user resets their password, the malicious access remains in place until it's specifically revoked.

- 4) **Microsoft Tells You to Back It Up** – Because Microsoft believes in the cloud “shared responsibility” model, they are very clear in their SLA that should an outage occur that destroys your data, you may not be able to retrieve it. They further state, ***we recommend that you regularly backup your content and data that you store on the Services or store using Third-Party Apps and Services.***
- 5) **Microsoft Has Validated the Need** – The recent release of *Microsoft 365 Backup* demonstrates that even Microsoft recognizes the need for organizations to protect their own data. (More on this later.)

It's apparent that backing up Microsoft 365 is necessary, so, let's dig a bit deeper and look at what you should be backing up.

What Needs to Be Backed Up?

I think the focus of backup needs to be primarily on four parts of Microsoft 365 around which most businesses revolve their operations:

Teams

With the shift to working remotely, the use of Teams has reached new heights with over 300 million daily active users¹. And while Teams technically is a mix of Exchange, Sharepoint, and OneDrive under the hood, there's still the need to logically back up the data from a Teams perspective: everything from the teams defined within Teams, their owners, public and private channels, files, mailboxes, integrations, permissions, and more all need to be protected.

Microsoft has a default retention time that ranges from 1-7 days for messages, with other data types (e.g., meeting invites and files) falling subject to the service-specific retention times delivering them

(e.g., Exchange and OneDrive for Business, respectively).

Exchange Online

Email still represents the bulk of most organizations' communications. Exchange Online supports a default deleted item retention time of 14 days that can be upped to 30. And, let's be real – archiving and legal holds are for security compliance and are *not* backups – and they only save emails; not calendars or contacts, nor SharePoint, OneDrive or Teams data.

Having proper backups that provide a granular recovery of your Exchange mailboxes will allow the organization to easily continue business at the point of recovery.

OneDrive for Business

The ease of use of cloud storage, and its ability to simplify content sharing, has made OneDrive a no-brainer for disparate workforces using a variety of client devices; the documents stored here represent the entirety of work for some roles within the organization. Additionally, the default location for OneNote files is the user's Documents folder within

OneDrive, adding OneNote to the list of what's protected. The data residing within OneDrive should be included in your backup strategy.

Because OneDrive uses SharePoint as its underlying technology, some capabilities around recovery are available to OneDrive. This includes recovery from the user's recycle bin within the default of 30 days as well as the recovery of the entire OneDrive from the Site Collection Recycle Bin within 93 days.

Microsoft does backup a given user's OneDrive instance for 30 days and supports you using their Files Restore functionality to recover the entire instance from, say, a ransomware attack. And OneDrive uses the same two-tier recycle bin as SharePoint Online.

Even so, all this is done on a per-user basis, so it offers no value in a situation where you wish to recover multiple users at once.

SharePoint Online

I've seen entire organizations leverage SharePoint as the way to, in essence, run their business; calendars, task lists, documents, discussions, and more all

make up a productive operation. So, at a minimum, backing up site collections and their contents are a necessity. As with OneDrive, SharePoint Online allows for recovery from the user's recycle bin within 30 days and the Site Collection Recycle Bin within 93 days. Microsoft also keeps a backup of deleted items for an additional 14 days. Deleted site collections (and their contents) also can be recovered within 90 days by admins.

But, like Exchange Online, recovery of deleted items isn't a backup. What's needed is an ability to granularly recover anything from a single entry in a list up to an entire Site Collection – you expected this when SharePoint was on-prem and nothing has changed except the server's location.

EntraID

I'm guessing you weren't thinking about your directory when first approaching the topic. When most people think of backing up Microsoft 365, they focus on "the data within." But, given the basis for every Microsoft 365 service is EntraID, it makes sense to have an ability to recover it in circumstances where mailboxes and accounts need to be in-sync.

For those of you thinking “I sync my EntraID with my on-prem AD, which is backed up already,” you still need to have backups of EntraID. There are plenty of unique bits of data – EntraID-specific attributes and license data, for example – that are stored in EntraID that are *not* synchronized back on-prem.

Microsoft Groups

Groups were created to empower teams of users to provide access to data across Teams, SharePoint, OneDrive, Exchange, and more. These need to be included in your backup strategy, as any permissions granted to facilitate access to a team of users would be lost.

What about Microsoft?

Now that you realize the importance of backing up quite a bit of Microsoft 365, it’s likely that many of you are thinking about Microsoft’s role in all this. You should be mindful of all that they have put in place in order to identify the gap that exists between what kind of backup and recovery capability you have today, and what you need as an organization. So, let’s look at what Microsoft

offers, both at a platform level, and within their applications.

Microsoft's Service Level Agreement

The Service Level Agreement (SLA) Microsoft provides for all of Microsoft 365 is focused on availability of the infrastructure and services; *it has nothing to do with your data*. While the architecture of Microsoft 365 does address data redundancy and some resiliency, there is no protection against data loss, accidental or malicious deletion, deletion beyond retention timeframes, corruption, encryption (ransomware), etc.

Plenty of Deleted Item Recovery Features

While I've covered some of the abilities to, in essence, *un-delete* items within these most critical parts of Microsoft 365, you need to recognize that it's most definitely *not* the same level of data protection as maintaining a regular backup from which you can granularly recover.

Microsoft 365 Backup

Back in the first half of 2024, Microsoft released their own backup service specifically for Microsoft

365. The service provides limited levels of backup, retention, and recovery granularity, making it likely a better choice for those organizations that are only looking to check the “we have a backup” box, and not those who need backup and recovery to meet specific business requirements.

Even with the new backup service from Microsoft in the picture, Microsoft themselves don't do the work of automatically backing up your organization's data; it's up to your organization to do something about protecting its data.

So, what kind of backup solution should you be looking for?

Properly Backing Up Microsoft 365

The idea of truly backing up Microsoft 365 clearly aligns with your business continuity / disaster recovery (BC/DR) initiatives. So, the decision of how to properly back up Microsoft 365 should revolve around a few considerations:

- **Meets the 3-2-1-1-0 Backup Rule** – Even data that originates in the cloud needs to

follow this fundamental principle: *three copies (one of which is the production copy in Microsoft 365), on two separate media, with one “offsite” (meaning, in this case, not within Microsoft 365 itself), one copy being immutable, and zero errors in the backups.*

- **Has Needed Levels of Granularity** – as previously mentioned, organizations that are serious about their ability to be resilient in the face of data loss need to be able to align backup, retention, and recovery configuration with the needs of the business. As an example, if you had a recovery point objective of just 5 minutes for Exchange Online, you’d immediately eliminate Microsoft 365 Backup from the discussion (as its granularity is down to 10-minute increments).
- **Is Cybersecurity-Minded** – That last “1” in the 3-2-1-1-0 Backup Rule (the one about backup immutability) is there so

ransomware can't delete the backed up data. In the same line of thinking, modern backup solutions include scans of backups to ensure dormant malware does not exist within backups. Without this kind of feature, organizations that are hit with a cyberattack will attempt to recover to a known-secure data set via backups, only to reinfect themselves with the very same malware with no idea of how far back they need to go to truly recover to a state where the malware does not exist.

- **Uses Software as a Service** – The choice to move to Microsoft 365 indicates a corporate desire to shift from Capex to Opex spending with SaaS solutions. I think it's warranted to ask the question "*Why would you even backup on-prem?*" Using a SaaS-based backup solution fits with your choice to leverage Microsoft 365, providing speed, flexibility, and scalability while enjoying that same Opex spending model.

Similarly, you also chose Microsoft 365 to offload the responsibility for any and all components involved in delivering the service. It makes sense then to look to a SaaS-based backup solution to offload the ongoing work of creating, managing, and maintaining backups of Microsoft 365.

- **Has Separate Availability from Microsoft** – There's a fundamental issue with using Microsoft's own backup service; that it relies on the Microsoft 365 cloud being up and running – the same as all the other customer-facing services. In short, *if the Microsoft cloud is inaccessible, so are your backups.*
- **Maintains On-Prem as an Option** – Should you have a hybrid environment with some on-prem instances of one or more services working in conjunction with Microsoft 365, the answer may still be SaaS-based backups in combination with on-premises protection

for other data sources. This can also potentially help with exit planning, should you want to return to on-prem or switch digital workspace providers.

- **Includes Long-Term Retention** – Backups of Microsoft 365 may need to be preserved for an extended period to ensure recoverability back to specific points in time. Your backup solution should include an ability to keep backups for months, or years, as is needed.
- **Offers Archiving** – Microsoft does provide a means to maintain archives (as in the case of Exchange Online). As well as an ability to search through many parts of Microsoft 365 via Content Search, more organizations look for archiving to encompass both legacy email solutions and email from cloud-based vendors. I recommend you should think of backups as *contributing to an archive* and not *being the archive* itself.

- **Adjusts with the Organization** – This is a bit tactical, but I think it’s important. Whichever way you back up Microsoft 365, remember there will be new mailboxes, new OneDrive folders, and new SharePoint sites. To ensure you capture every bit of data that should be protected, look for a solution or service that automatically updates as your Microsoft 365 environment changes.
- **Can Address True Disaster Recovery** – Most Microsoft 365 backup discussions (even those in this book) revolve around the recovery of just a few messages or, perhaps, just one mailbox. But, in situations where you need to put the entire environment back into that known-good state – as potentially in the case of a ransomware attack, you should be thinking about your Microsoft 365 backup as a part of your DR strategy. Having the ability to include Microsoft 365 as part of your DR efforts

ensures post-recovery operational consistency.

For each of these considerations, look at them through the lens of “business requirements;” *what does the business need?* Always start there and work back to the technology, the capabilities, and cool features of a potential solution.

The Big Takeaways

Your organization's investment in Microsoft 365's leading solutions – Teams, Exchange Online, SharePoint Online, OneDrive, and Microsoft Groups for Business – is only going to continue to grow over the coming years. Improved functionality, new services, and simple pricing is likely going to keep you a customer for the foreseeable future.

It's important to consider the data you keep in Microsoft 365 as *your* data that *you* must back up. Just as with on-prem services, this data is still subject to the same user error, cyberattacks, data breaches, and shifts in organizational strategy – all requiring IT to protect it. So, every part of Microsoft 365 that you leverage should be included in your backups to ensure you can recover not just the data, but your operations as well.

Look for a solution that specifically addresses business needs around backup and recovery and not just a service that simply backs up Microsoft 365. The stuff you keep in there is important; *treat it as such*.



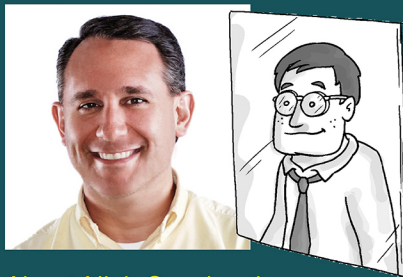
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Your Microsoft 365 instance is the lifeblood of your organization. And yet, you have no backup strategy or execution in place. Why? In this book, I'll cover the why, what, and how around backing up Microsoft 365 to protect the organization and its ability to remain operational, productive, and risk-free.



About Nick Cavallancia

Nick Cavallancia is a 4-time Microsoft MVP, a Technical Evangelist by trade, and is a 25+ year IT veteran who regularly speaks and writes for some of today's most recognizable companies.



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