

EBOOK

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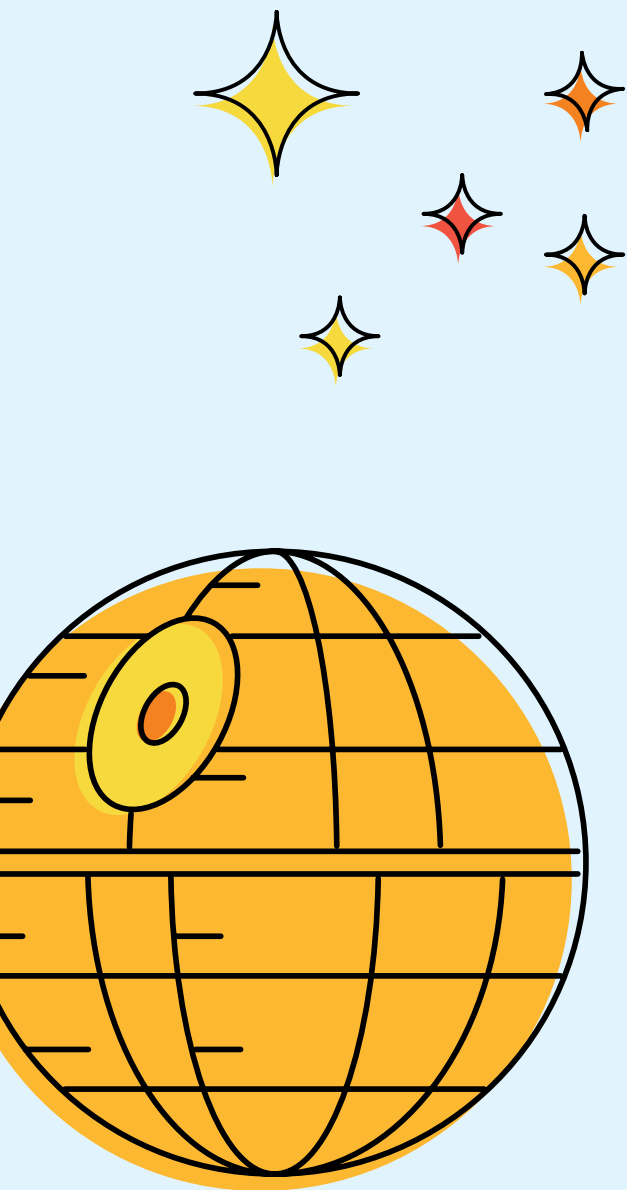
backupify

a datto company

# Return of the Data

Backupify for Office 365





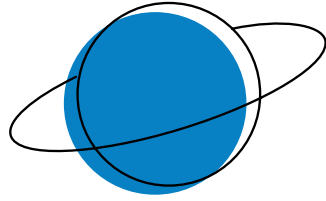
**For small to medium-sized businesses, Office 365 offers a compelling service where everything is managed and available when it is needed. However, for larger enterprises - where IT groups are used to managing extensive server farms and controlling every element that makes up a corporate system - Office 365 often falls short.**

For any business, choosing to leverage a cloud-based solution over an on-premises one can be a complex decision. So first, let's compare Microsoft Exchange on-premises with the cloud-based Microsoft Exchange Online (Office 365).

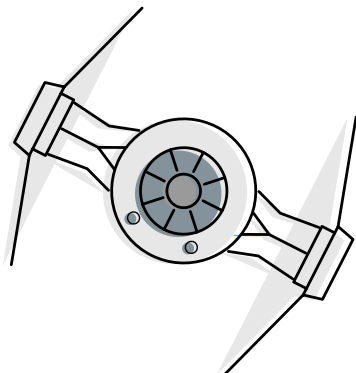
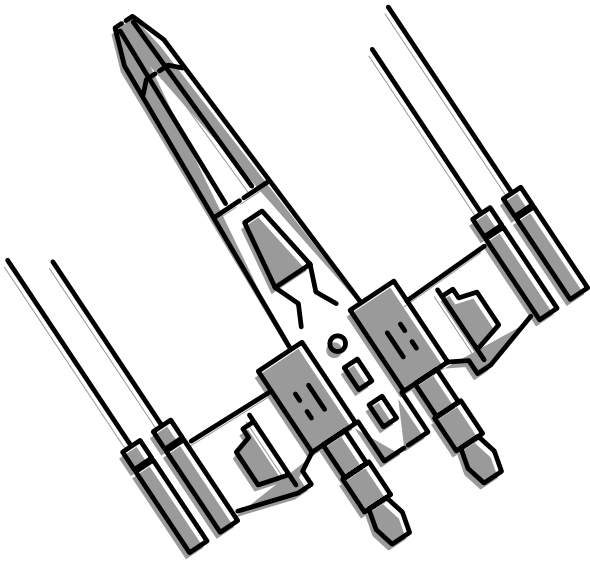
Microsoft's Office 365 suite offers a great core selection of features. It includes all components of the classic on-premises solution, including Exchange Online, OneDrive for Business and SharePoint Online. As a SaaS solution, everything from networking, servers, applications and end user access are provided. These systems are managed and monitored to ensure their always-on availability as well as to enable redundant services across the vast network of Microsoft data centers worldwide. Microsoft O365 is all about your data, making sure it is backed up and easily accessible from multiple devices at any time. To make this possible, Office 365 uses several different technologies for backup and recovery of data, depending on the application.

## **MICROSOFT EXCHANGE ONLINE**

For Exchange Online, a messaging application that includes email, calendars, contacts and tasks, Microsoft uses Database Availability Groups to replicate mailboxes to multiple databases in separate Microsoft data centers. This ensures that users can readily access up-to-date mailbox data in the event of a failure that affects one of the database copies. In addition to having multiple copies of each mailbox



Sir, it's quite possible **this asteroid is not entirely stable**



database stored throughout the Microsoft Office 365 ecosystem, each data center is backed up to each other, which limits service interruption and provides a seamless connected service. Outside of core system protection, deleted item protection is enabled, which includes manual recovery from Deleted Items, recovery from Recoverable Items, Single Items recovery, and retention policies.

Just as with its on-premises twin, Microsoft Exchange, Exchange Online allows end users the ability to restore an item that they deleted. Upon deleting an item, it is stored directly in the Deleted Items folder until the end user either purges all items or restores them as needed.

### Single Item Recovery

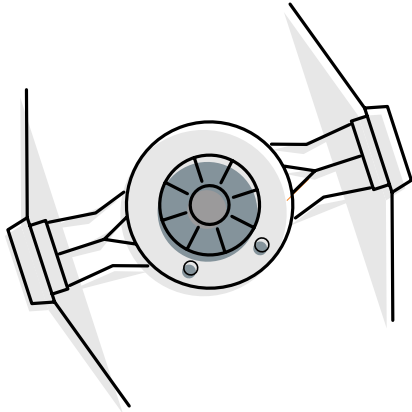
Exchange Online mailboxes have Single Item Recovery enabled by default, meaning that all deleted items are retained in the Recoverable Items structure until the retention period expires. This allows the end user, even after deleting items from the Deleted Items folder, to restore them back as needed within a specific window of time, which is set at 14 days by default. Admins can choose to increase the retention period if desired to a maximum period of 30 days using the Exchange Management Shell.

### Recovery from Recoverable Items

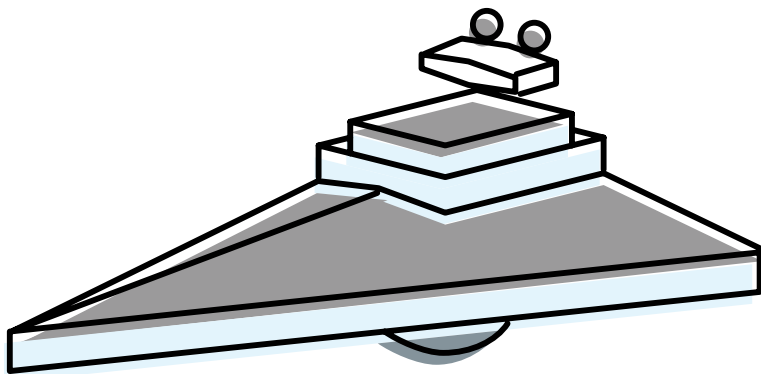
Once items are deleted within the Deleted Items folder, they are added to the Recoverable Items folder where they can be retrieved any time before the retention time expires by using the standard user controls, selecting an item and choosing the recover option. Users can also purge all or selected items as needed.

### Retention Policies

Exchange Online supports retention policies for controlling how long mail items are retained. The default MTM Policy within Exchange contains various retention settings that are applied to each mailbox user that is created. Custom retention policies can



**The odds of success fully surviving an attack on an imperial star destroyer are approximately...**



be defined and applied to Exchange Users allowing for better retention of items. Editing an Exchange User allows this to be set.

Though these options are important and needed, the key is that they are configured by administrators. Only then can an end user utilize these protections as needed.

## ONEDRIVE FOR BUSINESS AND SHAREPOINT ONLINE

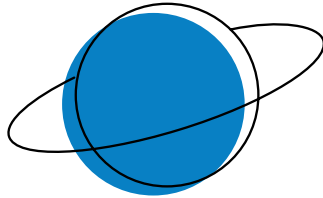
Built differently than Microsoft's Exchange Online solution, OneDrive for Business and SharePoint Online do not follow the same model for backup. While backups are taken for both OneDrive for Business and SharePoint Online, the ability for an end user to restore data within these applications is very limited.

Both OneDrive and SharePoint utilize the recycle bin approach, similar to Exchange Online and its Deleted Items and Recoverable Items folder features. To restore a deleted file within either application, one must access the Recycle Bin or 2nd Stage Recycle Bin.

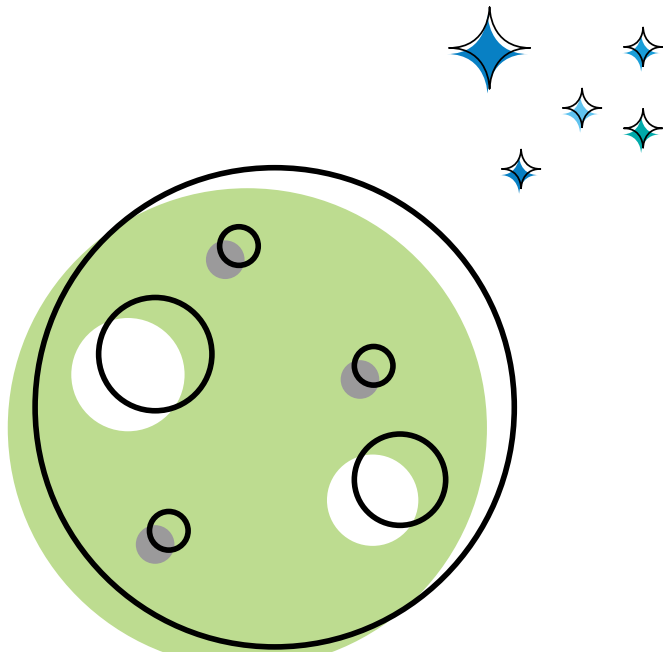
## DATA LOSS IN OFFICE 365

From basic email to end user files, data loss has become an everyday normality for today's organizations. When it comes to data loss for businesses, the most common causes are:

- Accidental deletion (human error)
- Virus or malware
- Hard disk or storage damage
- Software corruption
- Natural disaster



**Emperor, your confidence  
is your weakness.**



Microsoft has done a great job to try and mitigate these issues, but is helpless when it comes to the most common cause of data loss in Office 365: human error. In a single slip of a keyboard, a safe and sound critical document can be wiped out forever.

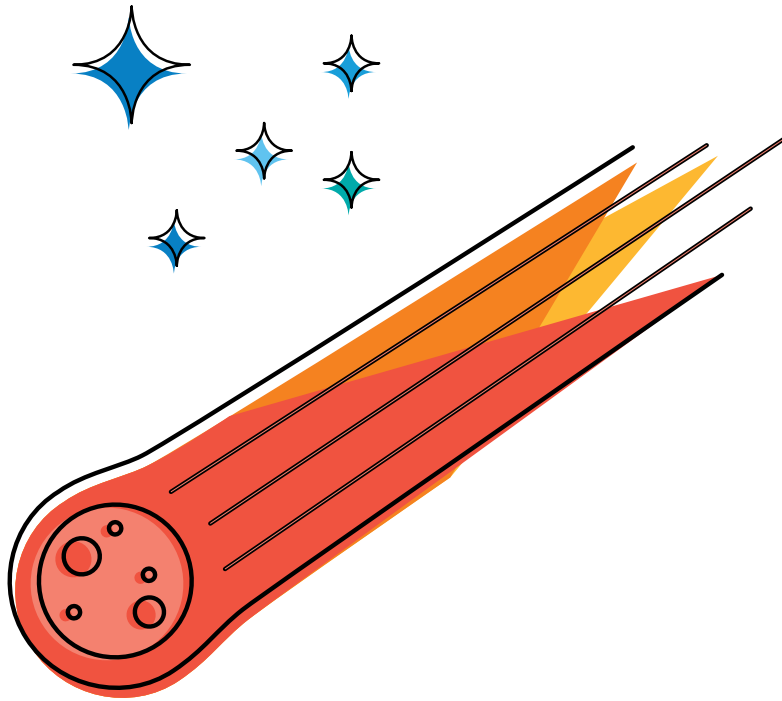
In a survey by the [Disaster Recovery Preparedness Council](#), 3 out of 4 surveyed companies had suffered major data loss, that included:

- Losing mission critical software applications
- Losing virtual machines
- Losing critical files
- Experiencing multiple days of downtime

Data loss has very real financial implications. In the same study, 20% of the companies surveyed have suffered \$50,000 to \$5 million in downtime losses due to lost productivity, unrecoverable assets, and lost consumer confidence. The study also found that more than half of companies that will suffer from catastrophic data loss as a result of a natural disaster often go out of business. They simply cannot recover the assets they lost, including customer data, onsite financial documents, application files, etc.

If you can't bring your business back to normal operations in a little over a week, your chances for business survival plummet. Consumer confidence and employee morale and security are already stretched thin after a disaster, and if your business is not able to resume operations, your competitors will undoubtedly take your customers.

Office 365 as a service has the ability to restore anything within the core environment. In the wake of a catastrophic failure, Microsoft will ensure your data is restored and available through one of the many data centers that it runs specifically for this purpose.



It does not necessarily take a catastrophic failure to warrant a restore of service and data. Simple deletion of content, both by end users and administrators, along with policy enforcement, means a restore is often needed.

## DATA RECOVERY IN OFFICE 365

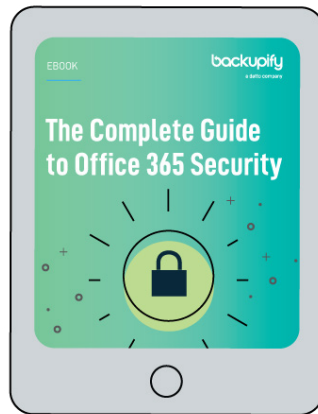
Let's say you've moved all of your data to Exchange Online and OneDrive for Business. Everything is working as expected until the phone calls start. An employee reports a critical business file has mysteriously disappeared. Based on how Office 365 works, your first option is to utilize any of the Deleted Items recovery mechanisms that have been added to Exchange and OneDrive. However, the main problem here is that the content that needs to be restored falls outside of the range set for retention. So what now?

How do you get data back like this? Within Exchange Online, the only options that Microsoft currently supports are:

- Deleted Item Recovery
- Recovered Item Recovery
- Archive Mailbox Recovery
- Request Email Restore from Microsoft

OneDrive for Business options are even less:

- Restore from the Recycle Bin
- Restore from 2nd Stage Recycle Bin
- Request Site Collection Restore from Microsoft



### The Complete Guide to Office 365 Security:

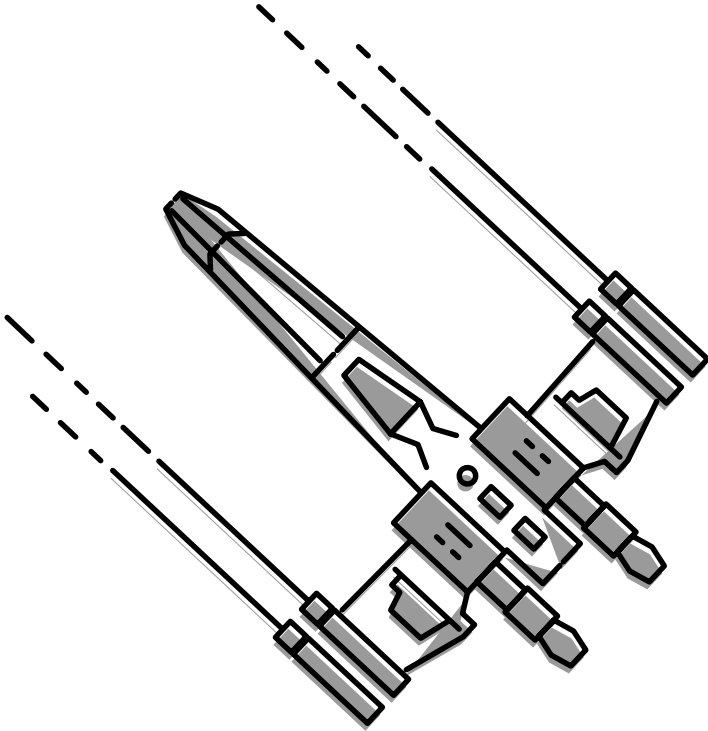
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These approaches, though valid, do not have the desired effect of allowing you to backup and restore as needed. Though you can restore specific mail items and files from within both services, only those items stored in the initial fail safe components can be restored. Restoring something that has been permanently deleted and is a year old is highly complex, if not impossible.



## EXCHANGE ONLINE

Exchange Online offers end users the ability to restore files that are not permanently deleted (shift+delete) through the main deleted items and recoverable items methods.



### Deleted Items

All ▾

[Recover deleted items](#)

<input type="checkbox"/>	Deleted Item <b>Liam Cleary</b> This is a deleted item		<b>8:40 PM</b>
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Purge Recover

#### Recover deleted items

These items were recently permanently deleted or emptied from the Deleted Items folder. You can either recover these items to their original locations or purge them.

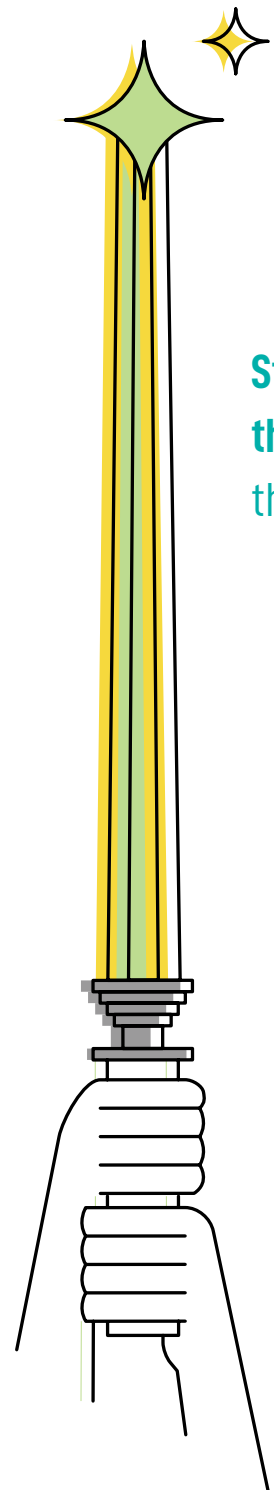
Deleted Items Items by date

<b>Liam Cleary</b> <b>Deleted Item</b> This is a deleted item	<b>8:40p</b>
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**Default MRM Policy**

This policy contains the following retention tags

- 1 Month Delete
- 1 Week Delete
- 1 Year Delete
- 5 Year Delete
- 6 Month Delete
- Default 2 year move to archive
- Junk Email
- Never Delete
- Personal 1 year move to archive
- Personal 5 year move to archive
- Personal never move to archive
- Recoverable Items 14 days move to archive

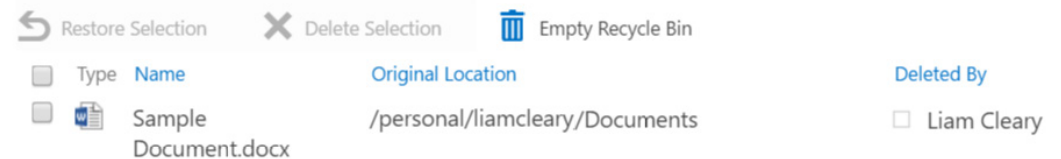


**Strong am I with  
the force, but not  
that strong.**

Single and multiple items can be recovered easily using this approach, but anything that does not reside in the two Items folders cannot be recovered as easily. If the core mailbox has the archive feature enabled, then all deleted items can be archived and restored as needed. If Message Records Management (MRM) policies have been applied to the mailbox, this can aid in retaining items for longer than the default values.

However, even with MRM policies, items that fall outside of the retention range can only be restored through a Microsoft support call. Microsoft will then restore mailbox data as needed.

### Recycle bin



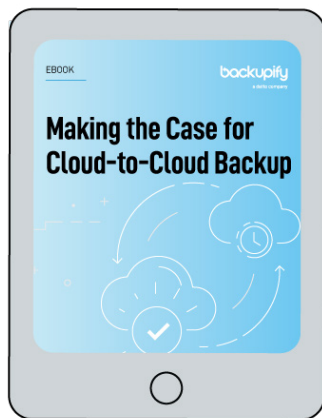
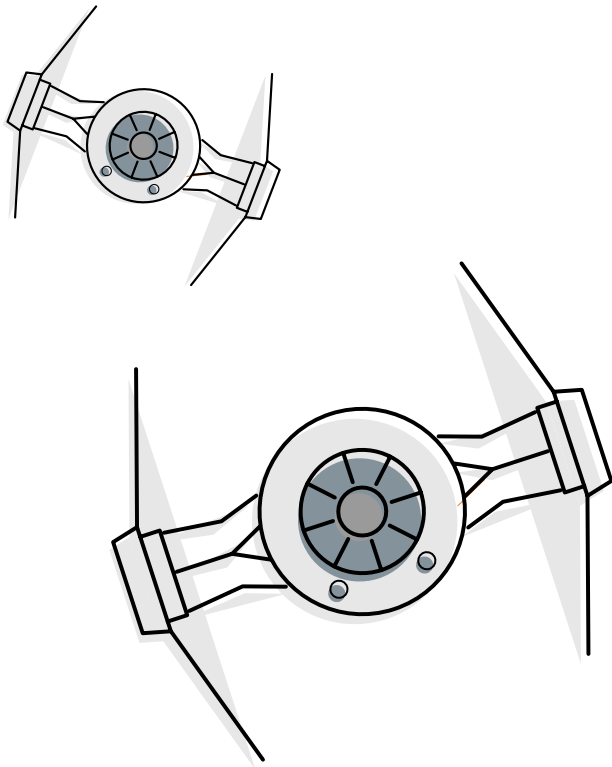
Can't find what you're looking for? Check the [second-stage recycle bin](#).

### OneDrive for Business

The Recycle Bin process has been within SharePoint on-premises and SharePoint Online for a long time and is used frequently. OneDrive for Business supports this with a two stage process. If a file is deleted it is instantly stored within the 1st Stage Recycle Bin. If the file does not exist within this stage it may have been deleted, which will then force the file to be stored within the 2nd Stage Recycle Bin.

Each Recycle Bin can allow for single or multiple files to be restored. Restoring a file from either Recycle Bin will return the file back to its original location within OneDrive for Business. If the files that need to be restored do not exist in any of the





## Making the Case for Cloud-to-Cloud Backup:

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Recycle Bins, then a request to Microsoft will be needed to restore the entire Site Collection. This comes at a cost as any changes made since the deletion would end up being overwritten to replace with the backup.

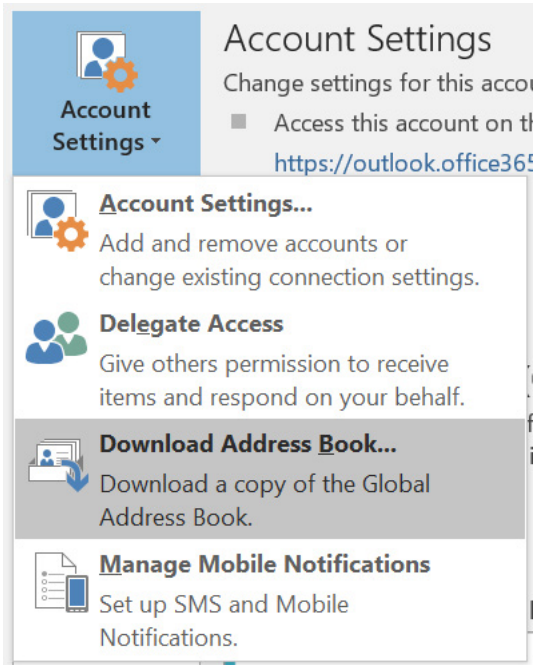
In the event of data loss, Office 365 can enable content to be restored back using a mix of various options from end user tasks to a full Microsoft intervention. Tenant administrators of Office 365 do not have any additional way to retrieve the data and restore it back as needed.

No one can argue that Exchange Online is a great service. For most IT departments, the ability to handover core administration and server maintenance makes them smile and jump with joy. However, the core difference between an on-premises Exchange versus the cloud-based Exchange Online is the ability to be hands on, to backup (and, more importantly, to restore) when needed, and to make changes to the underlying infrastructure. Microsoft's cloud services does not offer that level of control, as the very nature of it being a cloud service and tenant negates this.

Exchange Online supports native backup of the core infrastructure in order for Microsoft to meet its Service Level Agreement (SLA) with clients. What it does not do is support the "as needed" control for backup and restore unless you use the supported approaches.

## NATIVE EMAIL BACKUP AND RESTORE

Outside of Office 365's core backup process, there is no real mechanism to back up a mailbox like the on-premises process. Utilizing the recommended approaches of Deleted Item Recovery, Recovered Item Recovery and Archive Mailbox are the only options.



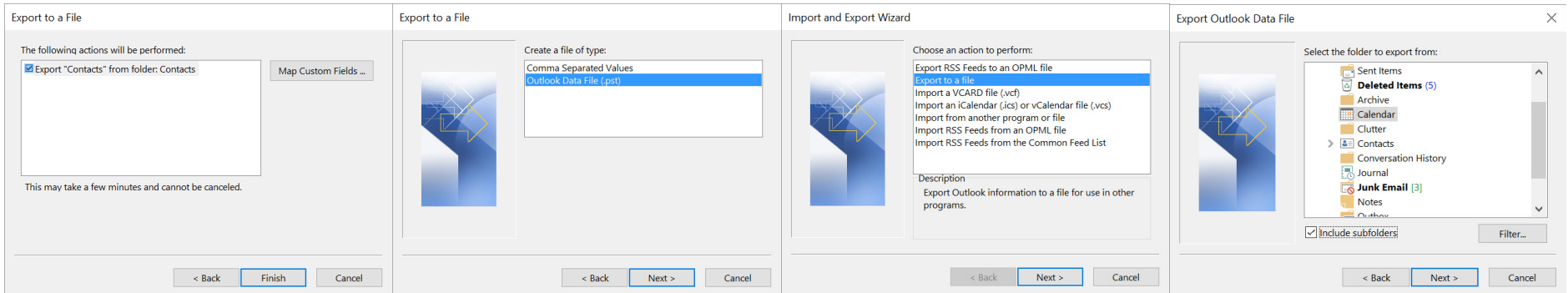
## Native Contact Backup and Restore

Exchange Online contacts are stored within the Global Address List and backed up by Microsoft as part of the tenant administration. However, there is no way for you to restore any one of them if they are deleted accidentally (or intentionally). The easiest way to handle this is to use an Outlook client configured for an offline mailbox. This will download the Global Address List and create a local offline version which allows you to make sure you always have them, whether online or offline.

To ensure you have backup copies, admins should routinely perform a manual export and keep a local, up to date copy handy. Or, the more technical solution would require scripting PowerShell to export and backup. The second approach is to export all of the contacts directly out of Outlook into a CSV or Excel file, allowing for backup and restore via importing.

## Native Calendar Backup and Restore

Microsoft does not provide a mechanism within Office 365 to back up a Calendar. The company's recommended approach is to use outside tools for this. Storing the calendar into a local PST will prevent general loss, but does not offer core protection.

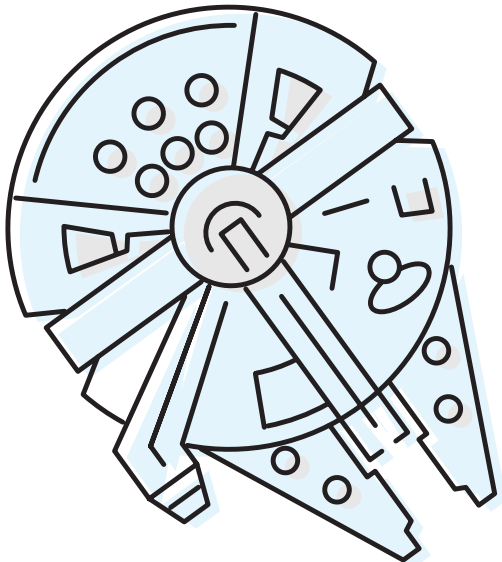


Exchange Online does not provide a mechanism for backup and restore of users calendars.



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START DEMO



Go for the power regulator on the north tower.

## ONEDRIVE FOR BUSINESS PROTECTION

OneDrive for Business is part of the core Office 365 storage mechanism. The files stored there are surfaced through SharePoint Online and through the Sync Client. These stored files are subject to the same controls used in SharePoint Online for backup and restore.

Site Collection backups within SharePoint Online and OneDrive for Business are performed every twelve hours and stored by Microsoft for fourteen days. As a tenant administrator, you have no control over backups or restores. If a restore is necessary, it can only be initiated by contacting Microsoft's Office 365 support.

Admins do not have the ability to restore a single item, document, list, or library unless they reside within the 1st or 2nd Stage Recycle Bins. A full restore of a site collection is the only option if the files have been deleted from both Recycle Bins.

File version history and version control can facilitate restoring files back into OneDrive for Business that have not been deleted but may have been overwritten by mistake.

### Version History

Delete All Versions

No. ↓	Modified	Modified By	Size
2.0	5/23/2016 7:33 PM	<input type="checkbox"/> Liam Cleary	12.1 KB
1.0	5/12/2016 5:59 PM	<input type="checkbox"/> Liam Cleary	11.9 KB

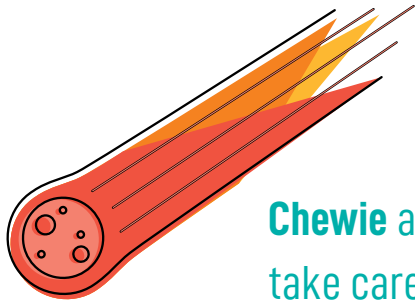
OneDrive for Business allows for restoring of versions or simply viewing them.

Delete All Versions

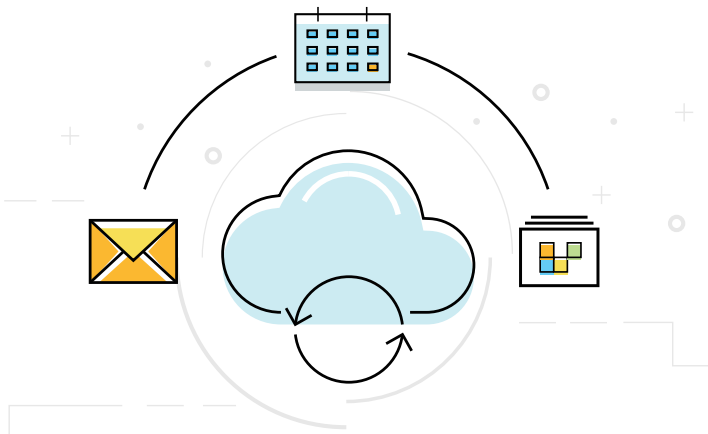
No. ↓	Modified	Modified By
2.0		<input type="checkbox"/> Liam Cleary
1.0		<input type="checkbox"/> Liam Cleary

View

Restore



**Chewie** and i'll  
take care of this



**Sign up for a FREE trial for Backupify**

**START FREE TRIAL NOW**

## THE NECESSITY OF A 3RD PARTY BACKUP AND RESTORE SOLUTION

With Microsoft focusing on its core service, taking internal backups, and ensuring everything is distributed between multiple data centers...what else needs doing?

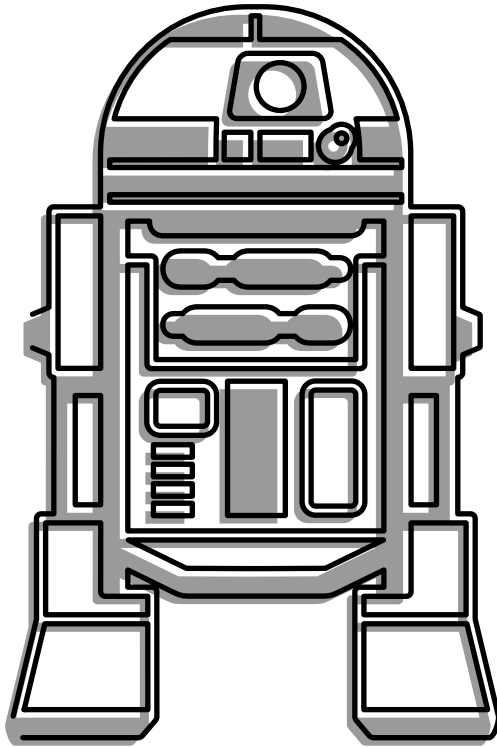
Office 365 has been designed in such a way that you as an organization do not need to worry about core infrastructure. You never need to worry about patching or backing up and monitoring the core infrastructure. Microsoft ensures that they are not the cause for any data loss, but have also limited the administration and end user backup and restore capabilities. If an administrator or end user in your organization simply deletes files and you cannot restore them, you would need to contact support and wait for a solution with no timeline guaranteed.

Having the ability to recover from simple deletions along with major outages is more important than ever before. Expecting end users to be the source of the backup and the mechanism for restoring is a risky approach to take.

The recommended approach is to have a solution that allows for individual item, file and container level backup and restores. This allows both end users and administrators the ability to work without worrying that their critical business files and data could disappear at any time without a chance of recovery.

## BACKUPIFY FOR OFFICE 365

To ensure your company's success in the cloud (or where ever the data lives), make sure you have a secure and reliable backup and restore solution. Datto's Backupify for Office 365 backs up your calendar, mail, contacts, OneDrive for Business files and folders, and SharePoint. Backupify automatically backs up record-level incremental changes 3X a day - protecting data and helping companies meet legal and compliance



One more thing remains, then,  
only then, **a Jedi will you be.**

regulations. Aside from the automatic backups, admins can force a backup at anytime, enabling a company to take charge of the data security in a way that Microsoft does not allow. Backupify makes capacity planning effortless, with no limit on retention times. Want to see Backupify for Office 365 in action? [Schedule a free demo today.](#)

**Features include:**

- Office 365 files backed up multiple times per day
  - Including OneDrive files and folders, email, SharePoint, contacts and calendars
- Compliance controls
  - SOC 2 Type II Audited
  - HIPAA compliant
  - Safe Harbor
- Built-in data encryption
- Core audit logs
- Export capabilities
- Manage backups easily
- View restores using an easy dashboard
- Utilize search for zeroing in on items
- Restore files, email, and calendar directly to end user accounts
- Restore to a different location

Backupify for Office 365, in conjunction with all of the out-of-the-box features that Microsoft provides, will make you the "Jedi" of backup and restore. This will ensure that you have a clear plan and way forward to ensure all organizational data is protected and safe.