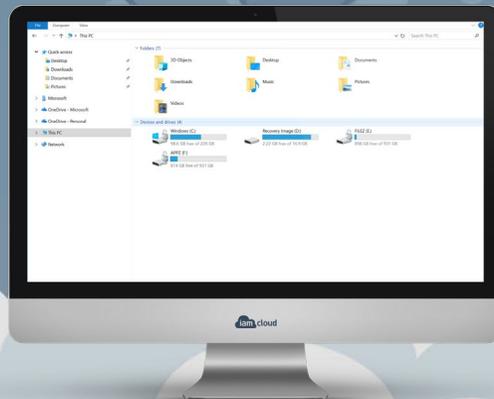




iam cloud

# CLOUD DRIVE MAPPER

Desktop & VDI-Integrated Cloud File Storage

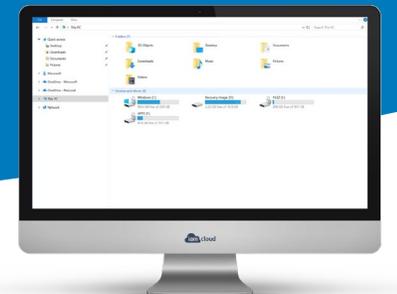


# What is Cloud Drive Mapper

**Cloud Drive Mapper is an application that integrates cloud storage into Windows desktops and VDIs. It maps drive letters to OneDrive for Business, SharePoint Online & Microsoft Teams.**

**Cloud Drive Mapper leverages Microsoft 365 single sign-on from a range of providers to provide a secure and seamless experience to users. Administrators can configure different drives to be enabled for different groups of users, and enable different features, including dynamic 'converged drives', user-managed drives and folder redirection.**

**Most importantly, there's no file sync. There is simply direct access to the storage, just as if users were using a local drive. e:\ g:\**



# A FEW COMMON LIMITATIONS OF CLOUD STORAGE AND THE ONEDRIVE SYNC CLIENT

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It can significantly  
change the user  
experience  
hampering  
productivity

Changing file  
storage and  
collaboration  
workflows is  
problematic

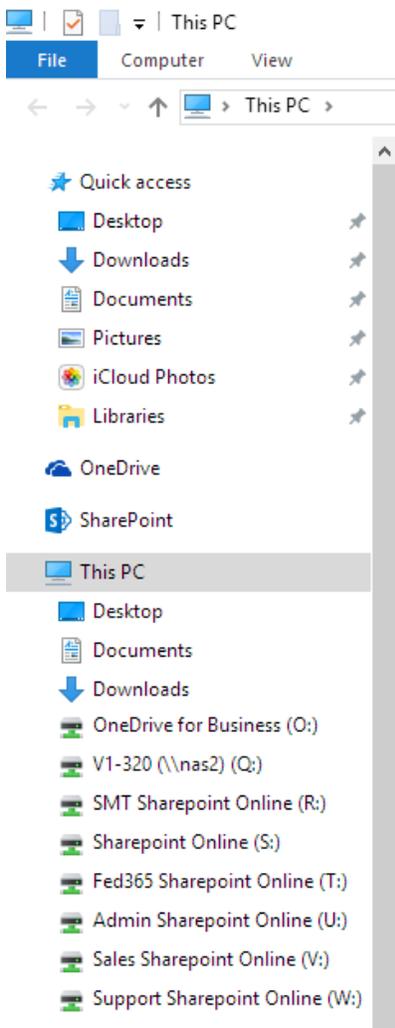
Not all applications  
can save data to a  
location without a  
drive letter

Cloud storage clients  
tend to have issues  
in VDI environments

File sync is often  
not practical or  
appropriate for  
enterprise use

Cloud storage  
tends to be end-user  
focused, which can  
cause added  
management issues  
for IT teams.

# Cloud Drive Mapper in action



How a mapped drive looks in File Explorer



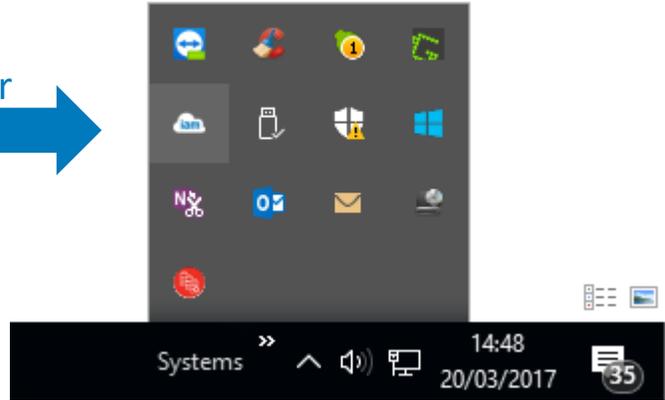
OneDrive for Business mapped as a user's personal home drive



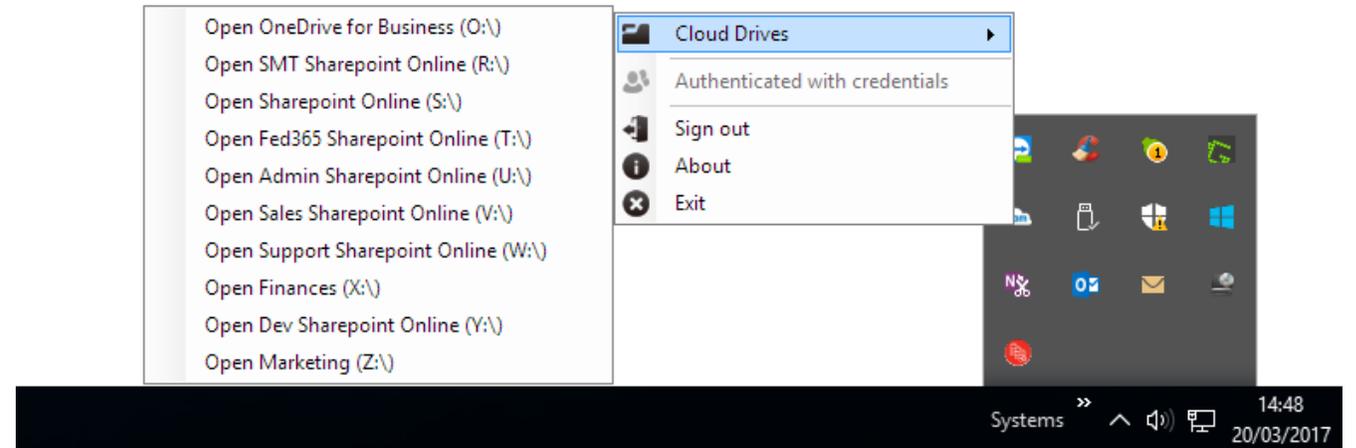
Multiple drives mapped to SharePoint Online Doc Libraries

# Cloud Drive Mapper in action

Cloud Drive Mapper client running in the system tray



Cloud Drive Mapper client view of drives



# Single Sign-On & Multi-Factor Authentication

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Cloud Drive Mapper works in non-federated environments through native Office 365 authentication, but it excels in environments with single sign-on (SSO), because the drive mapping process becomes invisible to the user.

Cloud Drive Mapper works with ADFS, Azure AD SSO, Okta, OneLogin, RM Unify, VMWare Identity Manager, IAM Cloud, Ping and most other major identity providers. With SSO, the user simply logs into the domain-joined workstation or VDI, and their drives automatically map in the background.

Cloud Drive Mapper uses “MSAL”, the latest MS authentication library framework, to authenticate with Microsoft Graph. This means CDM has a native integration that uses the same authentication technology as Microsoft’s own Office 365 apps.

This means Cloud Drive Mapper is fully compliant with all of the Azure AD security features such as Multi-Factor Authentication and Azure Conditional Access. Plus Cloud Drive Mapper supports many other modern third-party MFA providers too.



# VDI & VAI friendly

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Limitations with file synchronization, caching, challenges in orchestration, and a lack of policy-based control mean it isn't viable to use the OneDrive for Business sync client in VDI & VAI environments, such as Citrix, RDS or VMWare.

Cloud Drive Mapper has a particularly positive impact in organizations with VDI & VAI environments, and desktop environments where there are roaming AD profiles.

Cloud Drive Mapper allows organizations to fully embrace VDI & VAI environments like VMWare Horizon or Citrix XenApp & XenDesktop while making the most of the large volumes of cloud storage included with OneDrive for Business, SharePoint Online and Microsoft Teams.

With Cloud Drive Mapper – Microsoft Office 365 and Citrix can work seamlessly together to provide a powerful yet affordable full cloud solution.

Cloud Drive Mapper has been reviewed and approved by Citrix and is certified "Citrix Ready".

**CITRIX**  
**XenDesktop**

**CITRIX**  
**XenApp**

 **Microsoft**  
Remote Desktop Services



 **vmware**  
Horizon View

 **vmware**  
vSphere

# Folder Redirection

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**Cloud Drive Mapper natively supports Folder Redirection in Windows 7, 8, 8.1 and 10. This means you can properly integrate all (or any) Windows profile folders into each user's OneDrive for Business. You can also customize the location and name of the redirected folders within OneDrive via GPO.**

**Folder Redirection provides an amazing consistent user experience across every workstation users log in to – even within their web browser by redirecting /favorites.**

- **/Desktop**
- **/Documents**
- **/Favorites**
- **/Downloads**
- **/Music**
- **/Pictures**
- **/Videos**

# Converged Drives

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**Most drive mapping solutions are designed around a 1:1 relationship between the storage end-point and the drive letter. But there are often cases where this isn't particularly ideal.**

**We've devised a converged drive model, which allows you to map multiple SharePoint Site libraries, SharePoint Groups libraries, and Microsoft Teams libraries into a single drive letter.**

**What's more – our converged drive feature can do this dynamically based on the SPO Sites the user has permission to access or the Teams they are a member of. So all you need to do is set-up the drive, e.g.**

**SharePoint (S:\)**

**Teams (T:\)**

**And Cloud Drive Mapper will automatically map all of their MS Teams libraries into the T:\ as root level folders. As they are added to new Teams as time goes on, the Teams will automatically appear in their T:\ drive. Simple, easy, and very effective!**

## Drive Persistence

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**One of the greatest challenges of providing a mapped drive to a cloud end-point like OneDrive for Business or SharePoint Online is creating a stable and persistent connection.**

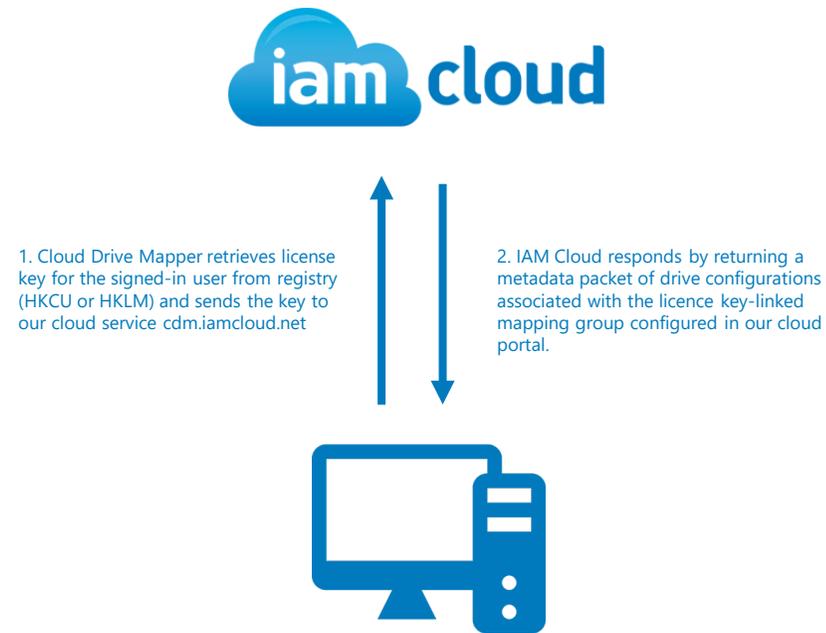
**We have built an intelligent cookie-management system that allows Cloud Drive Mapper to create permanent persistent sessions between the drives and the cloud.**

**Between Cloud Drive Mapper's handling of cookies and the way in which it integrates with single sign-on, Cloud Drive Mapper provides a seamless, reliable and robust method for users to access cloud storage from the desktop.**

# Security - Part 1 – Secure Architecture

## Cloud Drive Mapper has two core interactions & relationships.

- Interaction 1 – License key validation



Device / VDI running Cloud Drive Mapper

- Interaction 2 – User connection to MS Graph



Device / VDI running Cloud Drive Mapper

# Security - Part 2 – Minimal Exposure

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**IAM Cloud does not have any access to your Microsoft 365 tenancy, and we only store non-sensitive config data in our cloud service.**

**Our cloud platform is highly-secure and hosted in Microsoft Azure, with cross-Data Center redundancy for added service resilience. We provide a 99.9% uptime SLA & our service status can be viewed here: [www.iamcloudstatus.com](http://www.iamcloudstatus.com)**

**Our cloud service only requires three items of data to enable the configuration of drives**

- **Drive name** (e.g. Marketing)
- **Drive letter** (e.g. M)
- **SharePoint library URL** (e.g. customer.sharepoint.com/marketing)

**This means that even in a worst-case scenario and our cloud service was hacked, no significant sensitive data on your organization would be leaked. Hackers would not have any access to your M365 tenancy data whatsoever, because we have no access to your M365 tenancy whatsoever. Cloud Drive Mapper is secure by the fact we minimize the data we store and access we have.**

**Having said this, if required, Cloud Drive Mapper can also be used in full on-prem mode. This means that Cloud Drive Mapper can be operating without needing to communicate with our cloud services at all. Instead the drive mappings and licensing can be done entirely on-prem, via a special kind of license key and a formula for defining the drive configurations. We do not generally recommend this approach, as the cloud portal does make administration of Cloud Drive Mapper simpler. But in cases where extremely stringent security policies exist, this option may be the path of least resistance to acceptance and adoption.**

# Security - Part 3 – Secure Design

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## Cloud Drive Mapper is highly secure by design.

- **Cloud Drive Mapper authenticates to Microsoft 365 using Microsoft's own highly secure auth framework 'MSAL'. This means that IAM Cloud have zero visibility or access to your tenancy data or your users' access credentials. These are secured within MSAL's own encryption system.**
- **Using MSAL to authenticate to Microsoft 365 means that Cloud Drive Mapper is natively compatible with Microsoft MFA, Azure Conditional Access and a range of other Microsoft security measures to provide a substantial extra layer of protection to your corporate data.**
- **Cloud Drive Mapper will use whichever TLS version is enforced on the Windows machine. We recommend for our customers to implement policies forcing TLS 1.2 or 1.3 for the strongest levels of security.**
- **Cloud Drive Mapper forces transfers over https, and will not accept any requests over standard http. This means all file transfers enforce SSL/TLS encryption.**
- **If required, Cloud Drive Mapper can be used in full on-prem mode. This means that Cloud Drive Mapper doesn't contact our cloud service at all, and instead receives all the drive configuration data from on-prem instead through GPOs/logon scripts.**

# Security - Part 4 – Protection from Malware

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## Cloud Drive Mapper drives are more resistant to malware

- Ransomware almost exclusively targets local files. With Cloud Drive Mapper the files aren't synced, so they aren't local and can't be exploited. This means that environments that use CDM in conjunction with Office 365 storage are almost invulnerable from being seriously affected by a cryptolocker style of attack.
- Some malware attacks other files and applications, and can spread malicious files across drives - this can make portable and USB drives a security threat. However, the mapped drives created by Cloud Drive Mapper use a different protocol that very few malware agents can access.
- The cloud storage in SharePoint Online and OneDrive for Business has a real-time malware scanner, so even if a malicious file were to be copied into a drive Microsoft's extremely advanced threat-detection systems will delete it within seconds. In addition to this, Microsoft also prevent file execution on its servers so a file cannot spread through OneDrive or SharePoint as it can across a network.
- Files aren't stored locally, which means that hacking the drive wouldn't yield access to any private data. If a laptop were lost or stolen, simply changing the user's Office 365 password will prevent anyone being able to illegally access your organization's data.

# Security - Part 5 – Security Partners

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**IAM Cloud is a security company and a valuable ally to our customers and partners in helping to increase IT security.**

- **We make software that can significantly improve our customers' IT security. Our developers and infrastructure engineers are highly adept in a range of cybersecurity topics and act as advisory figures to government bodies and businesses.**
- **We are ISO27001 certified. ISO27001 is the global standard for excellent information security management practice. As part of this certification, we are audited annually by the BSI accreditation body, and have frequent independent security and vulnerability assessments.**
- **We've been recognized by Microsoft by our work, and won Microsoft's worldwide partner of the year award in 2015. We're also a Microsoft Gold Partner (2013-2020), a Citrix Partner, and have a large network of highly esteemed distributors and resellers.**

# More than a product

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**Cloud Drive Mapper is fully supported. For no extra charge, all our customers and partners receive enterprise services, which include:**

- **Full on-boarding support, including help with configuration & deployment**
- **Full access to our customer knowledgebase**
- **Full access to our ticketing system with extended business hours support**
- **24/7/365 Critical Support**
- **Service SLAs, including 99.9% guaranteed up-time**
- **Support by telephone, email, web tickets and web conference**
- **Quarterly service reviews**
- **Free upgrades to future releases**

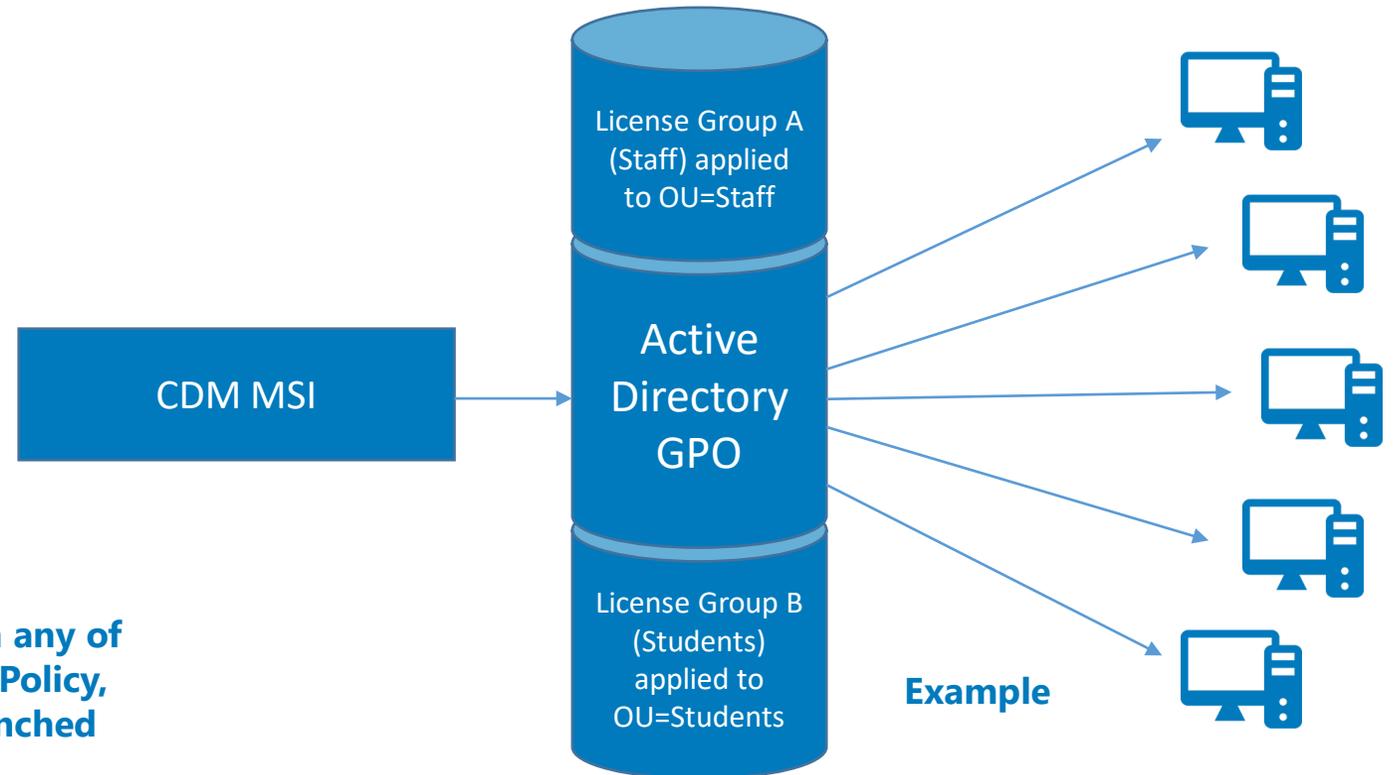


# Cloud Drive Mapper deployment process

## Simple & fast deployment

1. Configure drive settings / groups
2. MSI download
3. Push out MSI to machines
4. Copy licence key from portal
5. Deploy licence key + other relevant registry keys via GPO

Cloud Drive Mapper can also be deployed through any of the standard orchestration tools, including Group Policy, SCCM, MS Endpoint Manager (Intune) or even launched via a script.



# Why Cloud Drive Mapper

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**1 Control**  
Get all the control of on-premises network storage with the flexibility and affordability of the cloud

**2 Cost saving**  
Provides a genuinely viable replacement to network storage, potentially saving \$10,000s per year or more.

**3 Cloud adoption**  
Cloud Drive Mapper helps organisations take simple effective steps to adopting cloud while minimising user disruption

**4 No barriers, no issues**  
Direct access to the cloud storage eliminates the major issues of file synchronisation in organisations.

**5 Security**  
Allow users to login on any machine on your network and only have access to the drives you've assigned them with MFA compatibility.

**6 User experience**  
Cloud Drive Mapper works with Azure AD, ADFS, RM Unify, Okta, OneLogin and IAM Cloud SSO to provide seamless single sign-on

# Cloud Drive Mapper FAQ

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## Do I need any training?

No. One of the great things about Cloud Drive Mapper is how easy it is to use for both users and IT teams. Once you've implemented, you have to do anything else. Our support team is also on hand to help at any point.

## Is there a user limit in the trial?

There is no limit to the number of users you can have on the trial...if you want everyone in your business to try it, then please do!

## What happens after the trial?

Once you're close to the end of your free trial, someone from our commercial team will be in touch to check everything is okay and see if you want to continue using it. If you do, we'll send you an invoice.

## Do trials take long to setup?

No, it's really easy and can take as little as 5 minutes.

## What happens if a user hasn't activated their OneDrive for Business account?

We've got you covered. Cloud Drive Mapper will automatically activate the OneDrive for Business account, so it's a seamless experience for everyone. It's all about the little things.

## What happens if Cloud Drive Mapper doesn't work how I need or expect?

Just let us know. It may be that you have a configuration on-site we've not encountered before. We'll happily work with you to ensure Cloud Drive Mapper fulfils your requirements.

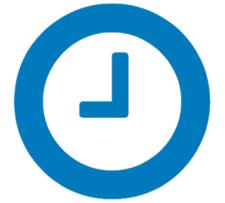
# Cloud Drive Mapper is used in organizations of all sizes and sectors



>2 million  
users



>1000  
organizations



5 mins to  
setup





**“Engie use bots to automate many back-office activities. Allowing them to access multiple Microsoft cloud storage locations using Cloud Drive Mapper enables Engie to deliver business process automation for multiple sites across our highly-decentralised organisation. We have been very impressed with CDM and so have our bots!”**

**Richard Abba, Senior Project Manager, Engie**



[www.iamcloud.com](http://www.iamcloud.com)