M365 OneDrive Migration Factory Solution Accelerator Delivery Guide

Change Log

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| December 2, 2021 | Initial Draft Written by Anthony de Lagarde |
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Purpose

The following deployment checklist is intended as a guideline to both support and help accelerate the migration of OneDrive data to Microsoft 365 (M365) from on-premises leveraging Azure. The guide stives to represent the general process in supporting the migration. The solution accelerator can be downloaded from here: [Azure-Data-Box-and-M365-Migration-Accelerator](https://github.com/adelagar/Azure-Data-Box-and-M365-Migration-Accelerator)

Requirements

The following prerequisites are required for a successful execution in setting up the Azure Migration Factory to support [ **INSERT CUSTOMER NAME** ] migration efforts.

* Access to a valid Azure Subscription
* Proper administrative access to the Azure subscription. Recommended subscription owner or contributor
* A valid network range to assign to the Azure virtual network
* The internal IP address of a Virtual Appliance (Azure Firewall) deployed inside the Hub virtual network to route administrative traffic back to on-premises if required
* The ability to peer the migration virtual network to a Hub virtual network if required, create a VPN, or connect the solution to an Azure ExpressRoute
* Access to Visual Studio Code or Notepad ++ with Azure Resource Manager support. Visual Studio Code can be downloaded from here: [Visual Studio Code - Code Editing. Redefined](https://code.visualstudio.com/)
* Notepad ++ is part of the Windows Store on Windows 10
* Depending on scenario and amount of data being transferred review the following:
  + [Microsoft Azure Data Box Disk system requirements | Microsoft Docs](https://docs.microsoft.com/en-us/azure/databox/data-box-disk-system-requirements#supported-operating-systems-for-clients)
  + [Microsoft Azure Data Box system requirements | Microsoft Docs](https://docs.microsoft.com/en-us/azure/databox/data-box-system-requirements)
  + [Download Data Box Disk toolset for Windows](https://aka.ms/databoxdisktoolswin) if required
* Proper access to the source data with administrative access
* Please review [Migrate your files to Microsoft 365 with Migration Manager - Migrate to Microsoft 365 | Microsoft Docs](https://docs.microsoft.com/en-us/sharepointmigration/mm-get-started)

In Scope

The following checklist only covers the procedures to setup the Azure Migration Factory to support the general migration of M365 data from on-premises. The checklist is a high-level overview. Please coordinate all Azure efforts with your vendor, qualified Microsoft Partner, FastTrack for M365, or Managed Service Provider. If you have a Microsoft Account Team request a FastTrack for Azure nomination for help deploying and initial orchestration of this solution accelerator or if you are a partner you can use the FastTrack for Azure partner nomination portal [FastTrack for Azure (microsoft.com)](https://www.microsoft.com/azure/partners/fasttrack-for-azure).

Out of Scope

Any function of administering or setting up the migration prerequisites and actual installation of Migration Manager and M365 administrative functions are out of scope of this document.

Intended Audience

This document is intended for administrators, IT Planners, and managers who are responsible for establishing and reviewing overall deployments and oversee operational practices.

Procedures

Please follow the steps in the order that they are presented.

| Step Number | Comment |
| --- | --- |
| 1 | Download the Azure Solution Accelerator from here: (INSERT DOWNLOAD LINK) |
| 2 | Extract the contents in the zip file to an administrative workstation or laptop. |
| 3 | Open the *DOIsolutionAccelerator.json* file with either Visual studio code or Notepad ++ |
| 4 | Open the Azure Portal (<https://portal.azure.com>) if you are in Microsoft Azure Commercial (MAC), if leveraging Microsoft Azure Government (MAG) please use this URL <https://portal.azure.us> . Ensure you are in the proper subscription. Open the Custom Deployment blade in the Azure Portal and select ***Build your own template in the editor*.** |
| 5 | Delete all the contents within the online editor leaving it a blank template within the Azure Portal. |
| 6 | Copy and paste the S*olutionAccelerator.json* into the online editor. |
| 7 | Click ***Save*** and proceed to enter your customized information such as resource group, custom virtual network name, IP address ranges, unique storage account name, and other prompts within the template. |
| 8 | Make sure you select the proper region and Azure Subscription |
| 9 | Review the settings, and click ***Create*** |
| 10 | Monitor the deployment of the Azure template. |
| 11 | Peer your virtual network with a Hub virtual network if required, connect the virtual network to an Azure ExpressRoute, create a VPN connection, or leave it as a disconnected virtual network “*an island in the sky*.” **Your business requirements will drive your use case topolgy model.** |
| 12 | **Please note:** The following settings are optional if your environment has forced tunneling in your Azure network infrastructure.  Edit the route table and add two custom routes. The first route name call it I***nternet*** and add the following settings: **network 0.0.0.0/0 next hope internet**. Hist **Save.**  The second custom route table call it ***on-premises*** and in the settings **set the network to [on-premises network CIDR address], next hop Network Virtual Appliance,** and insert the **private IP of the Network Virtual Appliance (NVA).**  If unsure about the proper IP address for the NVA, please consult with your network administrator.  Click **Save**.  Reference: [Create, change, or delete an Azure route table | Microsoft Docs](https://docs.microsoft.com/en-us/azure/virtual-network/manage-route-table#:~:text=Create%20a%20route%20table.%201%20On%20the%20Azure,through%20a%20VPN%20gateway%2C%20and%20you%20...%20) |
| 13 | Apply the Route Table to the subnet where the Azure virtual machines have been deployed. |
| 14 | Click Save. |
| 15 | Ensure that **route propagation is disabled** on the route table properties. |
| 16 | Reboot the virtual machines. |
| 17 | Create a Private Endpoint on the storage account and select the private peering subnet within the Azure virtual network as the endpoint. Take note of the private endpoint DNS.  Reference: [Use private endpoints - Azure Storage | Microsoft Docs](https://docs.microsoft.com/en-us/azure/storage/common/storage-private-endpoints) |
| 18 | Create a File Share on the Azure storage account. Upload a test text file to the share through the Azure storage account interface. |
| 19 | On the Azure Portal select the storage account, click “***connect the Azure share”*** and save the script locally. Edit the UNC path with the share name and the Private Endpoint Private Link DNS namespace. |
| 19 | Logon on of the newly created virtual machines through RDP. Transfer the script locally to the virtual machine in Azure. |
| 20 | Make sure remote execution of PowerShell scripts is enabled before executing the script. Run the edited script from the Azure virtual machine with PowerShell to map the UNC share. |
| 21 | Attempt to access the test txt file over the mapped UNC path. |
| 22 | Proceed to the Azure Portal and start to order the Azure Data Box Disks or Disks. |
| 23 | Make sure to select the resource group you used earlier to create you Azure environment and the share are used noted in your order. |
| 24 | Unpack the Azure Data Box Disks. Save the packaging (***if your use case scenario is required***) |
| 25 | [Connect to disks and get the passkey](https://docs.microsoft.com/en-us/azure/databox/data-box-disk-deploy-set-up#connect-to-disks-and-get-the-passkey) (***if your use case scenario is required***) |
| 26 | Proceed to copy the data from your source to the Azure Data Box Disks / Azure Data Box File Share container. This share can be either SMB or NFS depending on your migration scenario. Please refer to Azure Data Box documentation.  Reference: [Tutorial to copy data to Azure Data Box Disk | Microsoft Docs](https://docs.microsoft.com/en-us/azure/databox/data-box-disk-deploy-copy-data) , [Tutorial to copy data via SMB on Azure Data Box | Microsoft Docs](https://docs.microsoft.com/en-us/azure/databox/data-box-deploy-copy-data) , or [Tutorial to copy data to Azure Data Box via NFS | Microsoft Docs](https://docs.microsoft.com/en-us/azure/databox/data-box-deploy-copy-data-via-nfs)  **Example:**  Robocopy can be used to copy your data. Multiple copy jobs can be initiated using the following Robocopy command:  Robocopy <source> <destination> \* /MT:64 /E /R:1 /W:1 /NFL /NDL /FFT /Log:c:\RobocopyLog.txt |
| 27 | Monitor the log as you copy data from the source to the Azure Data Disk log file located in c:\RobocopyLog.txt |
| 28 | Once the data has been copied and validated on the Azure Data Box Disk or Data Box proceed to remove the cables connecting the devices to the local computer or network infrastructure on-premises.  Charges may apply if the accessories are missing so, please check before sending back. |
| 29 | Logon to the Azure portal (<https://portal.azure.com>) for MAC or <https://portal.azure.us> for MAG with your administrative credentials. |
| 30 | Go to Overview, click **Download shipping labels** and download a return ship label if you opted for the Azure Data Box Disks to migrated data from on-premises. |
| 31 | Schedule a pickup with UPS. Copy your tracking number. |
| 32 | Once the data has been copied successfully to the Azure File Share from the on-premises export try and access the files through the UNC path. |
| 33 | At this point you may start to schedule with the proper teams to organize the migration into OneDrive.  If the organization has a Microsoft Premier contract, they can contact the Customer Success Manager (CSAM) for guidance and support. |

Solution Diagram

The following is a diagram of the Azure Migration Factory. The names of the objects may vary based on your customization. The number of migration machines can also vary depending on the migration requirements.

A screen shot of a computer

Description automatically generated with low confidence