Migration Guides

Migrate Windows computers from source Active Directory to target Active Directory using Offline Domain Join

Introduction

Below are the high-level steps that you should review and complete at a minimum to migrate a Windows 10 or 11 workstation from one on-prem Active Directory to the target on-prem Active Directory using Offline Domain Join (ODJ).

You might be migrating computers from:

SOURCE	TARGET
Active Directory Domain joined	Active Directory Domain joined

Without real-time connectivity to the target domain controllers during the migration. Aka **"Offline Domain Join!**

These instructions should be read in conjunction with the latest Configuration Guide
https://downloads.powersyncpro.com/current/PSPMA-ConfigurationGuide.pdf

Create and Configure Directories

Create your source and target directories that you will be working with. You will need to provide the server name and a username and password for the service account.

> **Note on Offline Domain Join and Remote Sync Agents**
> Currently Offline Domain Join does not work when you have your directory configured to use a Remote Sync Agent. To work around this, you should configure your directory to classic mode.

You must ensure that you have scoped the Import Object Types to a minimum of Users and computers / devices.

Create a Sync Profile for Migrating Users

You must have at least a "Match Only" sync profile with correctly scoped users that are your target for Windows workstation Migrations that have an active Windows profile that will require repermissioning. For repermissioning to happen there must be a User Translation Table, and that is built via the Sync Profiles.

Enable the DirSync Schedule

Configure and enable the sync schedule to ensure that Users and computers will be imported into the PSP Database for you to work with.

Obtain and apply a licence

You will not be able to migrate any workstations without a valid licence. You must be accurate with your domain FQDN and / or Microsoft 365 Tenant information when procuring your licence. Apply the licence at Global Settings\Licences option.

Run an end-to-end DirSync

Be sure that an end-to-end directory sync cycle has run including Import, Sync and Export

Message Logs

Check the Message Logs for **Warning and Errors**. Confirm or remediate any unmatched users

What If

Confirm the **What If** report has been checked and accepted so that DirSync will run in steady state on the schedule.

Check the Translation Table

Go to the **Translation Table** view (Migration Agent\Reports\Translation Table) and spot check any users that you know are in scope for migration. If your migrating users do NOT appear in the translation table, then **do not migrate their device**. It will **NOT** be re-permissioned.

Single Object Report

Use the single object report to spot check and search for a user or computer you are migrating.

Migration Agent Configuration

Create a pre shared key

The pre-shared key is mandatory requirement for the installation of the Migration Agent on the computer. This sets-up the initial secure channel communication.

Create a Certificate

The private certificate is mandatory requirement for the installation of the Migration Agent on the computer. This ensures that all communication between the workstation and the PowerSyncPro server is secure and encrypted.

Create a Runbook

A Runbook contains all the instructions for the Migration Agent to execute on the computer including the device join state, Intune enrolment, Windows profile repermissioning, application reconfiguration and any pre and post migration scripts.

We advocate only having one primary runbook (and one pre-requisite Runbook if required). Use your single Runbook (and any prerequisite Runbook) in any Batches you have, even if they are Early Adopters, Pilot and Main migration waves and events.

- **Startup:** Be sure to configure a Lock Screen image and Admin fallback account and any custom scripts PowerSyncPro can provide a default image if you prefer:
  https://downloads.powersyncpro.com/current/PSP_LockScreen_16x9.jpg
  Set Legal Notice and Prevent Login as required (RECOMMENDED)
- **Device State:** When migrating from Active Directory to another Active Directory you should ensure that on the device State tab you
  - If you have are also migrating tenant-to-tenant migration then**:**
    - **Remove From All Directories** and **Domain join: Active Directory.**
  - If you have already completed your tenant-to-tenant migration then**:**
    - **Remove From Active Directory** and **Domain join: Active Directory.**
- **Active Directory:**
  - **Offline Domain Join** option must be selected.
    - Decide if **Reuse Existing Computer Account** is required.
  - **Computer Account Org Unit:** Populate which OU devices should be added to. (See configuration guide for more information)
  - **Domain Join Username and Domain Join Password** should be populated. (be sure this account does not expire during your migrations)
  - **You do NOT need to use Cache User Credentials here, but you MUST have run it in a pre-requisite Runbook**
- **Permission Updates:** You must ensure that **add and remove permissions** is selected
- **App Reconfiguration:** If you are also switching tenants as part of this migration then you will need to also reconfigure Apps.
  - If you have already migrated tenants and are now following up with and AD to AD migration, then you do not need to any of the cloud apps reconfigure apps.
- **Completion**: Any post migration scripts

Note for Offline Domain Join runbooks
You must have Cache User Credential selected in a Prerequisite runbook. The migration will not move forward if selected in the main runbook and the user has not cached their credentials.

Cache User Credentials

Cache User Credentials **must** run in advance while the users and their workstation have network connection to the target Active Directory Domain.

Pre-Requisite Runbooks – If you are migrating to a different Active Directory via Offline Domain Join you will need to ensure you have run your **'Make OneDrive files cloud only'** and **"Cache User Credentials"** Runbook at least a week before cutover. Your cutover Runbook must list pre-requisite runbooks.

To create a Pre-Requisite runbook, you create a normal runbook but do not configure anything other than **"Make One Drive Cloud Only"** and **"Cache User Credentials"**. Configure your Pre-Requisite runbook as follows:

- **Startup:** Select Silent mode

- **User Experience:** Configure that Cache Credential dialog boxes to your needs

- **Device State:**
    - Select and enable **"Cache User Credentials"**
    - We are only wanting to make the One Drive files Cloud only, so no device state change is required **Remove From: None** and **Domain join: None.**

- **Permission Updates:** you can select **Don't Update Permissions** since this is a Pre-Requisite runbook.

- **App Reconfiguration:** only select **"Make One Drive Cloud Only"**

- **Completion**: Select Do Not Run Completion.

Create a Batch

Batches contain the list of computers in scope, the Runbooks to execute and the start time and date. You can create your batches with an **Enforced After** date far in advance if necessary but have the **Available from** closer to your present time to facilitate self-service migrations and testing.

Typically, for Tenant-to-Tenant migrations you will be performing a cutover migration so you would not use the Available From option.

Batches can have multiple Runbooks. Do not have computers in multiple Batches.

Adding a computer to Batch less than 24 hours before migration is unlikely to be successful unless you restart the PowerSyncPro on the Computer. Always ensure that you have a valid and populated Translation Table for your use case.

Do not forget to include your prerequisite Runbooks

Confirm a working migration endpoint URL

If you are using the *default installation,* then your endpoint will be the PowerSyncPro server FQDN with TCP port 5000. Typically, this would be only used for your initial end-to-end testing. E.g. http://pspserver.contoso.local:5000/Agent

If you are using IIS with a reverse proxy your endpoint will be https (TCP port 443) using your friendly DNS name and a valid SSL certificate binding. E.g. https://powersyncpro.contoso.com/Agent

> **To test:** From an in-scope computer open the browser and connect to the URL this should resolve successfully to a landing page.

The PowerSyncPro server endpoint URL must be available at the start of the migration to confirm the latest runbooks and scheduling information, and critically to get SID translation data from the server

during the migration. Once the computer migration has started, reporting information such as migration status and logging will be written back to the server.

Agent Installation

The .NET 8.x Desktop Runtime prerequisites must be installed. These can be installed separately in advance or bundled with the complete PSP Migration Agent Installer. It is more common to use the bundled version.

Agent Registration

Confirm that Agents are successfully registering on the PowerSyncPro server by reviewing the Agents view and Failed Communications report.

Checklist

TASK	COMPLETE
Create and configure Directories	
Create and configure Sync Profile for Users and Groups	
Enable the schedule	
Obtain and apply a software licence	
Run an end-to-end Import/Sync/Export	
Check Message Logs for Warnings and Errors	
Confirm the What If report	
Spot check the Translation Table	
Spot check the Single Object Report	

Agent Preparation	COMPLETE
Create a pre shared key and Certificate	
Create Runbooks and Batches – including prerequisite Runbooks specifically **"Cache User Credentials"**	
Ensure the Domain Join service account will not expire	
Confirm a working PowerSyncPro server endpoint URL	
Confirm Microsoft 365 tenant Entra join and Intune Enrol settings	
Confirm Agent Installation with prerequisites	
Confirm Agent Registration and profile harvests	
Test with non-production users and computers	

Documentation

We take a lot of pride on the documentation. If you follow the guides, we believe that you should be able to get yourself up and running. https://powersyncpro.com/documentation

Knowledge Base

We are regularly adding and updating articles in the Knowledge Base, so also try here as a good resource. https://kb.powersyncpro.com/

Support

Support is available from: https://tickets.powersyncpro.com/

If you are logging a ticket, be prepared to send the Migration Event Logs plus Windows Application Event logs from the affected computer and the Server / Agent version.