Avanade Nonprofit Retail Installation Guide

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1. Introduction

1.1 Document Purpose
This document details the process of installing and using the components of Avanade’s Goodwill Inventory Tracking Solution.

1.2 Overview
Avanade’s Goodwill Inventory Tracking solution covers the typical Inventory tracking lifecycle of any Donated items. It is built upon Microsoft’s Common Data Model, enabled using Power Platform, Azure and D365FO technology.

The features covered as part of this solution are as follows:
- Donated Items Tracking
- Print Management
2. Components – Dual Write Configuration

Dual-write is an out-of-box infrastructure that provides near-real-time interaction between model-driven apps in Microsoft Dynamics 365 and Finance and Operations apps.

**Power apps environment configuration:**
We need to create a power apps production environment by following this link: [https://docs.microsoft.com/en-us/power-platform/admin/create-environment#create-an-environment-and-add-model-driven-apps](https://docs.microsoft.com/en-us/power-platform/admin/create-environment#create-an-environment-and-add-model-driven-apps)
Please make sure that you select below apps:

![Add database](image)

The setup of a dual-write connection has the following requirements:

- Finance and Operations apps that have build version 10.0.9 (10.0.383.20013) (Quality update) and platform update 33 or later
- Model-driven apps in Microsoft Dynamics 365 that have platform version 9.1.0000.11732 or later

2.1 Verify requirements and grant access

Before you enable dual-write, follow these steps to make sure that you meet the minimum system requirements and to grant access to the apps that must connect to each other. The dual-write health check validates the prerequisites as you complete the dual-write wizard to link a Finance and Operations app environment to a Common Data Service environment.
You must set **Enable Dynamics 365 apps** to **Yes** when you set up the environment, as shown in the following image. Alternatively, you can choose a model-driven app for Dynamics 365 environment that comes with Common Data Service and already has **Enable Dynamics 365 apps** set to **Yes**.

![Add database](image)

1. Validate the platform update and app version.

   Make sure that your Finance and Operations app environment is running Platform update 33 (app version 10.0.9) or later.

   *Dual Write is supported on Finance and Operations app environments with Platform Update PU 33 (App version 10.0.9) or above*

2. Install the dual-write core solution.

   The dual-write core solution contains metadata for your entity maps and must be installed in your environments.

   1. In Power Apps, in the left pane, select **Solutions**.
   2. Select **Open AppSource**.
   3. Select the **Dual Write Core** solution.
   4. Follow the prompts to import the solution.
3. Grant Common Data Service access so that it can connect to a Finance and Operations app.
   1. Open your instance of the Finance and Operations app, search and navigate to Azure Active Directory applications.
   2. Select New to add a new client ID record: 6f7d0213-62b1-43a8-b7f4-ff2bb8b7b452. This record is the application ID for an app that will be used to connect from Common Data Service to the Finance and Operations app.
   3. Repeat the previous two steps to add another client ID record: 2e49aa60-1bd3-43b6-8ab6-03ada3d9f08b.

When you've finished, follow these steps to refresh the list of entities:

4. Go to Workspaces > Data management, select the Data entities tile, and make sure that the entity list is filled in.
5. Go to Workspaces > Data management, and select the Framework parameters tile. Then, on the Entities tab (https://<BaseFinanceandOperationsappsURL>?cmp=USMF&mi=DM_DataManagementWorkspaceMenuItem&TableName=DMFDefinitionGroupEntity), select Refresh entities list.

4. Grant a Finance and Operations app access so that it can connect to Common Data Service.
   1. In Power Apps, select the Settings button (gear symbol) in the upper-right corner, go to Advanced settings > Security, and then select Users.
2. Use the drop-down menu to change the view from **Enabled Users** to **Application Users**.
3. Create a new user, and then, on the **User** menu, select **Application User**.
4. In the **Application ID** field, enter `00000015-0000-0000-c000-000000000000`. This application ID is for a Finance and Operations app and will enable the app to connect to Common Data Service. When you’ve finished, follow the prompts to fill in the other fields, and then save the user account.
5. Provide a primary email address.
6. Select Manage Roles, and then, in the Manage User Roles dialog box, select the System Administrator check box to provide system admin rights to the selected application user.
7. Go to Dynamics 365 > Settings > Security, select Teams, and then change the view to All Owner Teams.
8. Select default team for the root Business Unit, select Manage Roles, and then, in the Manage Team Roles dialog box, select a preconfigured Security Role to grant a Read privilege with a User scope for each entity integrated through dual-write.
9. Repeat the previous five steps for application ID 2e49aa60-1bd3-43b6-8ab6-03ada3d9f08b.

5. Provide app consent in the tenant. For dual-write core solution version 1.0.16.0 or above, this step is no longer needed.
6. Make sure that the dual-write plug-ins are enabled.

This step isn’t usually required, because the plug-ins should be enabled as part of the process of installing the dual-write core solution. However, if the health check fails, follow these steps to manually enable the dual-write plug-ins:

9. Download the Plug-in Registration Tool.

In the Plugin Registration Tool, there should be two plug-in assemblies that are associated with dual-write: DualWriteRegistration.Plugins and DualWriteRuntime.Plugins. These assemblies have plug-in steps that must be enabled, in order, before dual-write can be used. To view the plug-in steps, expand a plug-in assembly and its plug-in types. All the steps that belong to the dual-write plug-in assemblies should be enabled.
10. To enable a step, select and hold the step (or right-click it), and then select **Enable**. If no **Enable** option is available, only a **Disable** option, the step has already been enabled and doesn’t have to be changed.

Note

If the dual-write plug-in assemblies can’t be found, import the latest version of the dual-write core solution.

7. Install the **Dual-write application orchestration solution** maps solution.

In Power Apps, in the left pane, select **Solutions**. Select **Open AppSource**, and search for the solution that is named **Dual-write application orchestration solution**. Select the solution, and follow the prompts to import it. After installation, you’ll find several new solutions listed under **Solutions**. For more information, see **Solutions overview**.

While the dual-write core solution contains metadata for your entity maps, the dual-write application orchestration solution covers these additional master data scenarios:

- Customers, products, and vendors.
- End-to-end process flows like prospect to cash.
- On-demand functions like pricing.
- Reference data for ledger, tax, payment terms, and schedules.

Dual-write will continue to expand in the future to support more scenarios including party, project, and hands-on inventory. The framework is extensible and accommodates customer-centric business data exchange through a few additional clicks.

Note
You must select **Apply Solution** as part of the next steps, when you use the dual-write wizard to link your environments.

8. Uninstall the Prospect to Cash (P2C) solution.

   The P2C solution doesn’t work concurrently with dual-write. Therefore, don’t install the P2C solution. If it’s already installed, you must uninstall it before you enable dual-write.

9. Provide the supported tenant configuration.

   Make sure that the Finance and Operations app and Common Data Service are installed under the same tenant. Cross-tenant scenarios aren’t currently supported.

   **Note**

   For dual-write core solution versions lower than 1.0.16.0, see the following section for modifications and additional steps.

**For dual-write core solution lower than version 1.0.16.0 only**

1. In step Step 3b above, create a new client ID record: **33976c19-1db5-4c02-810e-c243db79efde** (versus 6f7d0213-62b1-43a8-b7f4-ff2bb8b7b452).
2. Add app consent in the tenant:
   1. Open the following URL, and sign in by using your admin credentials. You should be prompted for consent.
      
      `https://login.microsoftonline.com/common/oauth2/authorize?client_id=33976c19-1db5-4c02-810e-c243db79efde&response_type=code&prompt=admin_consent`
   2. Select **Accept**.

      By selecting **Accept**, you indicate that you’re providing consent to install the app that has application ID **33976c19-1db5-4c02-810e-c243db79efde** in your tenant. Common Data Service requires this app to communicate with the Finance and Operations app.

2.2 **Use the dual-write wizard to link your environments:**

1. Sign into the Finance and Operations app environment that you want to link to your Common Data Service environment.
2. Go to **Workspaces > Data management**, and select the **Dual Write** tile.
3. Select **New link to environment** to open the **Setup link to Common Data Service** wizard.
4. The **Choose environment** page lists all the Common Data Service environments where the signed-in user is an environment admin. Select the Common Data Service environment to link to, and then select **Next**.

5. Select your legal entities, and then select **Next**.
A health check is run to verify that your system meets the requirements for enabling dual-write. The health check also verifies that all the prerequisites have been completed. If any health check test fails, make that you've completed all the prerequisites before you move on to the next step.

In the following example, the test about whether access was granted to connect the apps failed. In this case, you must first grant access to connect the apps by the creating the appropriate application IDs. You must then rerun the wizard.

6. Review the summary, privacy notice, and consent, and then select **Create**.

You've now linked your Finance and Operations app to the Common Data Service environment.

**Note**
If you don't see your entity maps, or if you see a blank page, be sure to **Apply** the Dual-write application orchestration solution that you installed as part of the system requirements and prerequisites.

7. Apply the dual-write application orchestration solution.

   In the Finance and Operations app, on the **Dual-write** page, select **Apply Solution** to apply the entity maps that you just downloaded and installed. After you apply the solution, you should see that the default entity maps are published.

You've now successfully imported and applied a Microsoft-published dual-write entity map solution to your environment.
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3. Components – D365 FO Setup:

3.1 Production Suite
Please deploy the F & O package provided with the solution package in your FinOps environment to continue with further steps.

3.1.1 D365 Setup

1. Setup Color Schedule
   Inventory Management -> Setup -> Price/discounts/Color Schedule

   ![Color Schedule Setup](image)

   Click on New
   Under Name, click the dropdown button and choose a Color category.
   Set the From and To date fields.
2. Data Management Upload for Color Schedule
   a. Go to Workspaces -> Data management
   b. Create an import project.
   c. Add Color Schedule data entity.

3. Document Routing Agent Installation and printer registration
   a. Choose the D365FinOps environment to setup the document routing printer for.
   b. Go to the Microsoft documentation by clicking the following link and follow the steps.

4. Label template
   a. Go to Warehouse management -> Set up -> Document Routing -> Document routing layouts
b. Click “New” and add a name for the template e.g. Seattle 1x2.

c. Paste the ZPL code and encapsulate variable fields with ${fieldname}$ e.g. $ItemId$

5. Document Routing / Workstation setup
   a. Go to Warehouse management -> Set up -> Document Routing -> Document routing
b. Under Work order type, click the dropdown button and select “SGI Production suite”

c. Click “New”

d. Provide a sequence number (enter the next number)

e. Enter the name (Work station id)

f. Enter Warehouse

g. Enter Workstation Id

h. Enter Store types

i. Under Document routing printers click “New”
   a. Under Name, click dropdown and select from the available printer.
   b. Under layout ID, choose the template to use.
6. **Worker setup**
   
a. **To setup POS/Production Suite authentication rules.**
   
i. Go to Retail and Commerce -> Channel Setup -> Headquarters Setup -> Parameters -> Retail parameters.
   
ii. Click on POS Authentication

b. **To maintain retail/production suite worker password and prod suite access level.**
   
i. Go to Retail and Commerce -> Employees -> Workers
   
ii. Select a worker.
   
iii. Click on Retail tab.
7. Journal Name Setup
   a. Go to Inventory Management -> Setup -> Journal Names -> Inventory
   b. Create a new Journal Name and set the name to **ProdSuite**

8. Parameter Setup:
   a. Go to System Administration -> Setup -> System Parameters -> Company
   b. Go to Inventory Management -> Setup -> Inventory and Warehouse Management Parameters
   c. Create a new Journal Name and set the name to **ProdSuite**
9. **Batch Job Setup**
   a. Go to Inventory Management -> Periodic tasks -> Inventory Adjustment Journal Posting.
   b. Select journal name for production suite and configure batch processing.
4. PowerApps Setup

4.1 Import Package

- Navigate to make.powerapps.com and in the solutions section -> Import the Solution Package provided in the repository. Even package deployer could also be used to import the same.

The solution contains the following components.

- After the package is imported, go to Apps -> and click on Edit. Go to App -> OnStart and change the “api Root” to the root address of your FinOps environment. Save and Publish.
• Now navigate to the flow and add a new HTTP with Azure AD connection to the flow. This connection is used in the flow to connect to FinOps Env. Validate the data sources and formula checker before playing the App.