Guide

ADP Marketplace Partner Development Learning Guide

Published on
Apr 22, 2020 6:31PM

Last modified
Apr 21, 2021 1:55PM

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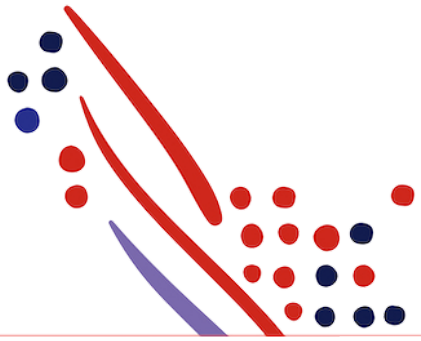

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Table of Contents

Chapter 1

About this Guide and Project Plan

- Summary
- What's New in this Guide?
  - April 2021
- Using this Guide
- Marketplace Development Project Plan Check List
- Partner Integration Specification Document
- Access to ADP Tools and Assets
- Access to ADP Marketplace Developer Collaboration Channel through Slack
- Access to Weekly Office Hours Hosted by ADP
- ADP Marketplace Technical Advisor

Chapter 2

Partner Onboarding Exercises

Chapter 3

ADP Marketplace Solutions

Chapter 4

Implementing SSO with OpenId Connect

Chapter 5

Data Integration and APIs

Chapter 6

ADP Marketplace Security Review

Chapter 7

Partner Developer Learning Checklist

Chapter 1

About this Guide and Project Plan

Summary

This guide provides a high-level overview of ADP Marketplace Platform, applications, application programming interfaces (APIs), and integrations for developers and product owners, so you can learn to plan ADP Marketplace development projects.

What's New in this Guide?

April 2021

- Revamped entire Partner Learning Guide to be shorter and more concise with step-by-step integration tasks

Using this Guide

Each section starts with a high level introduction, followed by exercises, so your team gains more insights. We recommend developers and product owners go through all the exercises.

Marketplace Development Project Plan Check List

A project plan (shown below) is provided to you as part of partner on-boarding to manage tasks and ownership. This will also next to each milestone provide the chapter in this guide where you can find documentation for each task.

Key Milestones	Done Means	Target Date	Chapter
Project Start Date	Developer will begin the development schedule based on use case		
Onboarding	• Create your Project in the Developer Self-Service Tool • Generate your Mutual SSL Certificate (CSR) • Request a Test Instance (ADP WFN, RUN, Vantage) • Consent to Your Test Instance • Provide UI access permissions to access workers in your test instance		2
Marketplace Platform Integration and Application Listing.	• Create a development application listing on ADP Marketplace • Listen for events from ADP Marketplace for subscription management and user management these would be developer created endpoints. • Understand Pricing model and Editions and determine if additional developer work is needed (ex: Metered Billing) • Understand how to Handle Existing Customers.		3

Implementing OpenID Connect	• Configure your Redirect URI via the Developer Self-Service Tool • Implement OpenID Connect		4
Build ADP API integration	• Implement the Credentials API (using your partner credentials) to fetch a client's Oauth 2.0 Client Credentials • Implement ADP Marketplace Integration best practices (Client Credentials and Token Management) • Implement exception handling based on ADP recommendations • Implement Event Queue API to listen for changes in data		5.1
Consent Management	• Build Consent Management into your product to capture client's consent		5.2
Submit Milestone Dates to your ADP Contact	• Once you are done developing and testing your ADP integration, a member of the Technical Advisory team will review your milestones for validity.		5.3
ADP Marketplace Security Review	• After development is fully complete, your application will be reviewed by ADP's Global Security Organization (GSO) to ensure it adheres to our data security and privacy standards		6

Partner Integration Specification Document

Please fill out the Partner Integration Specification Document. You will need to submit it to your ADP Marketplace Technical Advisor so they can help you confirm the product scope and ensure all aspect of the ADP Marketplace integration are addressed to achieve an ideal client experience.

Access to ADP Tools and Assets

- You will be given access to the ADP Partner Help Center which will serve as your ADP Marketplace knowledge base, and helps you to submit and manage your tickets.

- ADP Developer Self Service Tool where you can see your milestones, create your project, Test instance (sandbox access) and generate your Certificate (CSR)
- ADP Marketplace where you will create your application listing and listen to subscription events.
- Integrations by Solutions guides to help define your use case and Developer Resources for additional documentation.
    - As part of your onboarding, you have received two emails from **SecurityServices.NoReply@adp.com** with your User ID and a temporary password. You will use this user ID to login to the developer tools mentioned above.

Access to ADP Marketplace Developer Collaboration Channel through Slack

Your team members are invited through email during on-boarding to join the ADP Marketplace Developer Slack channel to collaborate with other developers. The more people get involved and engaged, the more benefits everyone receive. Share your development tips with others as well as asking others for help as needed.

- **Join the Slack Developer Community**

Access to Weekly Office Hours Hosted by ADP

Your team members are invited to a weekly Office Hours Q and A, where you can ask any questions regarding integration with ADP Marketplace. ADP Marketplace technical advisors will be on hand to answer any questions along with other ADP partner developers.

The office hour meetings are every **Thursday at 10:30am**, and **1:00pm Eastern**, except U.S. holidays.

- **Join Office Hours - 10:30am Eastern**
- **Join Office Hours - 1:30pm Eastern**

ADP Marketplace Technical Advisor

A dedicated technical advisor will be assigned to your project **within a week after** your ADP Marketplace administrator receives an ADP login. Your advisor is the point of contact for your project with the following responsibilities:

- Assists with product planning and milestone review.
- Serves as an escalation point for support ticket resolutions.
- Reviews your product demonstrations and provides feedback.
- Provides best practices for ADP Marketplace Integration

Chapter 2

Partner Onboarding Exercises

Exercise 2.1.1: Create your Partner Project in the ADP Self-Service tool

Duration

Approximately 30 minutes

Required Steps

1. You will need to log into the https://adpapps.adp.com/self-service tool using the credentials you received in two emails from **SecurityServices.NoReply@adp.com** with a ADP Marketplace user id and temporary password.
2. Once logged in you will need to click on **Start new Project**

3. You will be prompted to fill out basic information (Project name, Description, which ADP product you will be integrating with, ETC). Once completed click on **Next**.
4. You will be presented to choose a use case that best describes your application. Choose one and click **Submit** then click on **Done.**

Exercise 2.1.2: Generate your Mutual SSL Certificate (CSR)

Duration

- Approximately 5 minutes

Exercise Details

- A Mutual SSL certificate is required for call API call exchanged with the ADP API Gateway (adp.adp.com or accounts.adp.com).

Required Steps

1. Log into the https://adpapps.adp.com/self-service tool.
2. Click on the **Certificate Icon** in the upper left-hand corner.
3. This will take you to the Certificate Management Page.
4. Click on **Request Certificate**.
5. You will be prompted to fill out a few required fields. Once filled out click on **Next**.
6. The next page will present you with your **Private Key**. Use the **Copy** button and save the Private key In a text editor as a **.KEY** file. Then click on **OK, I Copied My Key**.
7. You will be taken to page where your certificate will be generated click on **Done**.
8. On the next page you will click on the Download link to retrieve your Signed **.PEM** file.
9. Store both the **.KEY** and **.PEM** in a safe place.

Exercise 2.1.3: Request a Test Instance (ADP WFN, RUN, Vantage)

Duration

- 30 minutes

Exercise Details

- In this exercise, you will create a Test Instance (sandbox).
- This instance will be used to test your integration against a fictitious organization within an ADP product.

Required Steps (for ADP WFN and Vantage)

1. Log into the https://adpapps.adp.com/self-service tool.
2. Click into your project and at the top of the page click on **Test Instance**.
3. Click on the **Request A Test Instance** button.
4. You will then receive 3 emails (two of which will come from **SecurityServices_NoReply@adp.com**)
5. The first email will contain your test instance **User ID** and link to your test instance.
6. The second will be your temporary **Password**.
7. Use the Link and the ID and Password from the steps above to log into your test instance (making sure you click on **"Administrator Sign In"** first)
8. Once logged in this will prompt you to change you Password.
9. The third email will come from ADP Marketplace Support_noreply@adp.com with the subject of Connect Request.
10. You will see **View Request** at the bottom of that email. In an Incognito window open that link and Login with the ID and Password you received above and Grant Consent by clicking on **Allow**.

**If you are a Partner integrating with RUN please reach out to your Market Place Technical Advisor to setup your RUN test instance.

Exercise 2.1.4: Understanding the ADP Partner Credentials

Duration

- Approximately 10 minutes

Exercise Details

Read Introduction to Credentials this document will go over each set of credentials ,where to find them and what they are used for.

- Both partner and sandbox credentials can be obtained from your development project in the ADP Developer Self-Service tool.

Exercise 2.1.5: Provide UI access Permissions to Access Workers in your Test Instance

Duration

- 30 minutes

Exercise Details

- After creating your test instance if you cannot see users in your test instance you will use the steps below to gain access.

Required Steps:

1. Access https://workforcenow.adp.com. (you may need to use incognito mode.)
2. Click on **Administrator sign-in** on the login screen
3. Once the Administrator login page is loaded type in your test instance credentials then type in your password
4. Once you are logged in navigate to the following screen

Setup à Security à Access Permission à Payroll and People Access

1. Lookup your name by providing your first and last name in the **Search Field** and press filter
2. Click on our name from the filter results. The user access permission screen will be loaded.
3. Click on **Payroll Processing Access Tab**.
4. Select **All Company Codes – View & Edit** then click on **Save**.
5. You will now be able to view and edit all employees and access payroll menu items.
   May also need for Vantage setup

Exercise 2.1.6: Provide Access to Additional Team Members

Duration

30 minutes

Exercise Details

As an ADP Marketplace Partner account administrator, you can add team members as users to your account (additional developers, etc.)

Required Steps:

- To add additional team member access to your ADP Marketplace Account please follow the steps outlined in the guide Adding Developer Resources.

Chapter 3

ADP Marketplace Solutions

ADP Marketplace and Applications

About ADP Marketplace eCommerce Platform

The ADP Marketplace Platform enables developers to develop, market, and sell solutions to businesses of all sizes can do the following:

- Discover your solution listed on the ADP Marketplace at apps.adp.com.
- Review key features, reviews, and terms and conditions.
- Acquire it by going through the purchase/buy flow.
- Provide consent for data transmissions.
- Use integrated solutions to reduce data entry tasks and streamline data flow between their information systems.

The ADP Marketplace Platform is powered by AppDirect, which is an eCommerce Platform. It has two key components:

- StoreFront for ADP clients, also being referred as the ADP Marketplace
- App management tool for developers to create applications as well as manage their business, such as managing customers and orders.

About ADP Marketplace Applications

During the planning phase of your project, it's important to define user stories and requirements for each of the following main themes:

- User Purchase flow.
- Automated subscription processing
- Client onboarding
- User login to your application using the ADP single-sign-on (SSO) capability
- Usage upload for billing and invoicing, optional
- Free trial automation, optional
- Contact phone/email for Clients to reach out to for support

The development effort related to the above items are also referred to as **Marketplace Integration.**

Exercise 3.1.1: Create an Application Listing on ADP Marketplace

Duration

30 minutes to 2 hours

Exercise Details

Login to the ADP Marketplace using the same credentials used in Exercise 2.1.1 and get familiar with creating an app listing using pre-defined templates using the App Listing Templates document. This document will have links to articles with step-by-step details on how to create a variety of listings, such as Data Connector, Core Solution, or Referral.

Also, the article How to Write Integration Details for ADP Marketplace Listings will guide you through the process of adding your product's Integration Details as a feature.

Goal

Become familiar with the steps needed in order to create an ADP Marketplace application listing as well as assist in writing the Integration details.

Exercise 3.1.2: Understanding Marketplace Integration

Duration

1 to 3 Days

Exercise Details

1. Review the Marketplace Integration Overview, which describes the process and work required for automated order processing and client onboarding.
2. Two forms of authentication are currently supported for the Inbound and Outbound calls for subscription events both are linked near the bottom of the article
3. Watch the ADP Marketplace Development webinar.

Goal

Gain high level understanding of key use cases in order to define features and user stories for your application order processing, client on-boarding, and user assignment

Exercise 3.1.3: Understanding ADP Marketplace Pricing Models

Duration

1 to 2 days

Prerequisite

- Define application listing pricing. For example, how much do you charge clients for your application?
- Decide if the price is pre-determined or usage-based
- Decide if all clients are charged the same fee or is there tiered pricing
- Decide if a Free Trial will be offered (Core Service only)

Exercise Details

1. Review ADP Marketplace Pricing and How to Setup Free Trial
2. Review Marketplace Metered Billing - Usage-Based Pricing (optional)
3. Watch the following video recording: ADP Marketplace Editions and Pricing webinar.

Goal

Understand how pricing works and determine if there's any development work required in order to assess the effort, and assign/commit the resource to your project.

Exercise 3.1.4: Defining the Client Purchase and On-boarding Experience (Client Experience)

Duration

1 to 3 days

Exercise Details

1. Review the Client Experience.
2. Review ADP Marketplace Validation And Adding a Custom Field to Checkout
3. Watch the following video recording: ADP Marketplace Customer Experience Webinar.

Goal

Understand the client check out experience to design and assess the effort to handle your existing clients.

Chapter 4

Implementing SSO with OpenId Connect

Exercise 4.1.1: Understanding ADP Single Sign-On Integration

Integration of partner applications with ADP Single Sign-On (SSO) is required, as it provides a seamless activation and sign-in experience for your clients.

Duration

2 to 4 hours

Exercise Details

1. Review the ADP Single Sign-On Integration, which describes ADP Single Sign-On article.
2. Watch the ADP Single Sign-On Integration webinar.

Goal

- Understand the framework.
- Confirm technology feasibility and if a code library from ADP can be used

Chapter 5

Data Integration and APIs

Data Integration and APIs

About ADP Human Capital Management (HCM) Platforms

ADP HCM Platforms provide APIs your application can leverage for data exchange. Popular platforms include the following:

- **Run Powered by ADP** is the small business platform HR and Payroll platforms and general service clients up to 50 employees. For more information, checkout the ADP Small business HR and payroll software solution page.
- **ADP Workforce Now** is for Mid-Market clients. Typically, clients have fewer than 1000 employees, but there are clients who are quite larger who are on this platform. For more information, check out the ADP Workforce Now page.

The development effort related to data exchanges powered by ADP Platform APIs are also referred as **ADP API Integration**. The effort largely varies depending on your integration use case as well as the ADP platform. Typically, more effort is required to develop integration for bi-directional data exchange than uni-directional. In addition, you should plan to spend more time if more data elements are being exchanged.

ADP API documentation is listed under the **Guides** section, found here developers.adp.com.

We recommend you review other integrated solutions available in the ADP Marketplace.

Exercise 5.1.1: Establishing your API Use Case.

Duration

- 1 to 3 days, depending on your integration requirement

Exercise Details

1. Review the Integrations by Solutions Guide
2. Identify the list of APIs for your application based on your use case

Exercise 5.1.2: Understanding the Data Connector and End-User Application Authorization process.

Duration

- 2 to 4 hours

There are two types of data integration applications depending on the nature of the application:

- **Data Connector Applications** connect to ADP's platform and consume data without an end-user's involvement. Typically, these are the scheduled programs or programs triggered by a set condition to exchange data between an ADP platform and your core application. An example would be synchronizing employee records using ADP platform as the system of record (SOR).
- **End-User Applications** requires an individual to log in using their ADP credentials. These applications must obtain authorization to gain access to the end-user's data. The data will be transmitted/exchanged between an ADP platform and your core application using the end-user's credentials.

Exercise Details

1. Read Understanding the Data Connector App Authorization Process
2. Review More about ADP Data Connector (optional reading)
3. Review the Understanding the End-User App Authorization Process

Exercise 5.1.3: Learning About ADP API Security

Duration

- 4 to 6 hours (approximate to understand all the below documentation)

Pre-Requisite

You have already retrieved:

1. Mutual SSL Certificate from Chapter 2.1.2
2. Test Instance Credentials from Chapter 2.1.3
3. Partner Credentials from Chapter 2.1.4

Exercise Details

Review the following documents below:

1. 1. An Introduction to Mutual SSL
   2. Access Tokens
   3. Implement the Credentials API (using your partner credentials) to fetch a client's OAuth 2.0 Client Credentials
   4. How to Retrieve Client Credentials of a Subscriber
   5. Make Your First API Call Using Postman
   6. Implement ADP Marketplace Integration best practices (Client Credentials and Token Management)
   7. Build Framework for Event Queue API
   8. Implement exception handling based on ADP recommendations
   9. Watch the Worker API and Credentials.read webinar
   10. Try to make API calls to retrieve client credentials.

Goals

- Understand the ADP API security design.
- Understand what's required to make API calls to ADP.
- Understand client-level API security by leveraging the **credential.read** API.
- Understand ADP Marketplace Integration best practices.
- Understand the Event Notification Queue and how to keep data in sync.
- Understand exception handling based on ADP recommendations.

Exercise 5.2.1: Learning About Consent Management

Duration

- 2 to 4 hours

Exercise Details

Review:

1. Using Consent Manager to Control Access to Your Data
2. Build Consent Management into your product

Goal

If a client does not provide consent for your application to access their data managed by ADP, the **credentials.read** API request would result in error. In addition, all API requests would fail.

Exercise 5.3.1: Define Development Milestone dates and send to ADP contacts

Duration

- 1 day

Exercise Details

1. Once you are done developing and testing your ADP integration, we would like to hear from you!
2. Fill out your target Milestone dates and email them to your contact from ADP

Goal

- Gain approval from ADP team for the Milestone dates
- Once approved, you are free to start development activities within Developer Self-Service portal

Chapter 6

ADP Marketplace Security Review

Overview

Applications integrated through ADP API's should be reviewed by ADP's Global Security Organization (GSO) for the purpose of data security and privacy.

Exercise 6.1.1: Learning about the Security Review Requirements and Processes

Duration

2 to 4 hours

Exercise Details

1. Watch the ADP Marketplace Security Review Webinar.
2. Review ADP Global Security Review for Marketplace Apps.

Goal

- Understand the ADP security requirements.
- Assess and plan required work accordingly to avoid delays caused by issues identified during the code review.

Chapter 7

Partner Developer Learning Checklist

Your team members can use this checklist to plan your learning timeline.

#	Exercise	Suggested Duration	Completed (Y/N)
2.1.1	Create your Partner Project	30 minutes	
2.1.2	**Generate your Mutual SSL Certificate (CSR)**	10 minutes	
2.1.3	**Request a Test Instance**	30 minutes	
2.1.4	**Understanding the ADP Partner Credentials**	10 minutes	
2.1.5	**Enable access to Workers in Test Instance**	5 minutes	
3.1.1	**Create an Solution Listing**	1 - 2 hours	
3.1.2	Understanding Marketplace Integration	1 - 3 days	
3.1.3	**ADP Marketplace Pricing Models**	1 - 2 days	
3.1.4	Define the Client Experience	1 - 3 days	
4.1.1	**Understanding ADP SSO**	2 - 4 hours	
5.1.1	**Establish your API use case**	1 - 3 days	
5.1.2	Understanding Data Connector and End User Authorization Process	2 - 5 hours	
5.1.3	**Learning about ADP API Security**	2 - 4 hours	
5.2.1	Learning about Consent Management	1 - 3 hours	
5.3.1	**Define Development Milestone Dates and Submit to ADP**	1 day	
6.1.1	**Learning about the Security Review Requirements and Processes**	2 to 4 hours	