

Module 4: Tag management systems & Mobile services

This toolkit is designed for Adobe Analytics Developer Expert Exam Aspirants. There are five Modules. Study Each module per week to stick to schedule. Technical Parts of applications are depicted in Videos, you can learn more about them from experience League. You can visit [Get prep](#) page to understand the contents and anticipate the learning journey (Section 4 and 5 from the Get Prep page has been clubbed to create Module 4).

This is Expert Exam, Developer toolkit Module 4. This contains two sections.

Section: 4.1 Tag management systems

- [Tag Management](#)
- [Tags overview](#)
- [Overview](#)

Section 4.2 Mobile services

- [Implement Analytics for Mobile Devices](#)
- [Migrate Mobile Services processing rules to Adobe Analytics](#)

Section 4.1: Tag management systems

4.1.1: Tag Management

Adobe Experience Platform Launch makes it easy to manage tags, and it provides innovative tools for collecting and distributing data across digital marketing systems.

Tag, you're it.

Tags are at the heart of any analytics practice. They make it possible for you to collect data, which become the insights you need. The challenge is deploying and managing those tags efficiently.

Built by the same engineers that built Dynamic Tag Management (DTM) back in 2013, Launch is our next-generation tag management system that unifies our entire marketing technology ecosystem. With Launch, third-party developers can build, maintain, and continuously update their integrations with Adobe Experience Cloud, meaning you can deploy both Adobe and third-party apps with ease — and capture and use customer data as you please.

Extensive Extensions catalog

Browse, configure, and deploy marketing technology built and maintained directly by independent software vendors.

Redesigned rule builder

Integrate the data and functionality of marketing and ad technologies to unify different products.

Open APIs

Automate baseline implementations for one tool or several.

Component-based publishing

Publish only what you intend by bundling the rules, data elements, and extensions that make up a library.

4.1.2: Tags overview

NOTE: *Adobe Experience Platform Launch has been rebranded as a suite of data collection technologies in Adobe Experience Platform. Several terminology changes have rolled out across the product documentation as a result. Please refer to the following [document](#) for a consolidated reference of the terminology changes.*

Tags in Adobe Experience Platform are the next generation of tag management capabilities from Adobe. Tags give customers a simple way to deploy and manage all of the analytics, marketing, and advertising tags necessary to power relevant customer experiences.

Tags empower anyone to build and maintain their own integrations, called *extensions*. These extensions are available to Adobe Experience Cloud customers in an app-store experience so they can quickly install, configure, and deploy their tags.

Tags are offered to Adobe Experience Cloud customers as an included value-add feature.

Key benefits

- Faster time to value.
- Trustworthy data through centralized collection, organization, and delivery using data elements.
- Compelling experiences through the integration of data and marketing technology using rule builder.

Key features

Extensions:

An extension is a package of code (JavaScript, HTML, and CSS) that extends the tags functionality. Build, manage, and update your integrations using a virtually self-service interface. You can think of extensions as apps you use to achieve your tasks.

Extension catalog:

Browse, configure, and deploy marketing/advertising tools built and maintained by independent software vendors.

Rule builder:

Create robust rules that combine multiple events, sequenced in the way that you determine using if/then logic with conditions and exceptions. Rules provide options for:

- Events
- Conditions
- Exceptions
- Actions

The rule builder includes real-time error checking and syntax highlighting for your custom code.

When the criteria outlined in your rules are met and conditions are satisfied, the actions you define are executed in order.

Data elements:

Collect, organize, and deliver data across web-based marketing and advertising technology.

Enterprise publishing:

The publishing process enables teams to publish code to pages. Different people can create an implementation, approve it, and publish it on your pages.

- Changes to your code are encapsulated within the libraries you define.
- You specify where and when you want your code deployed.
- Multiple libraries can be built in parallel by different teams.
- Unlimited development environments.
- A deliberate, permission-based process for merging libraries together.

Open APIs:

Automate implementations of individual technologies or a group of technologies.

- Tags interact with the Reactor API.
- Deployments can be automated through APIs.
- Integrate the APIs with your own internal systems.
- You can build your own user interface if desired.

Light, modular container tag:

The content of your container is minified, including your custom code. Everything is modular. If you don't need an item, it is not included in your library. The result is an implementation that is fast and compact. See [Minification](#).

Other highlights:

Tags provide several improvements over similar systems, including:

- No use of `document.write ()` where Chrome doesn't allow it.
- The Page Top and Page Bottom rules are bundled into the main library to minimize unnecessary HTTP calls.
- Custom action scripts within a rule can be loaded in parallel, but are executed sequentially.
- If you avoid Page Top and Page Bottom rules, the code is mostly asynchronous, with a path to getting fully async.

Additional Resources:

- **Getting started**
 - [Quickstart guide](#)
 - [Implementation guides](#)
- **UI guides**
 - [Overview](#)
 - [Extensions](#)
 - [Overview](#)
 - [Extension upgrades](#)
 - [Data elements](#)
 - [Rules](#)
 - [Notes](#)
 - [Copy resources](#)
 - [Compare resource revisions](#)
 - [Delete resources](#)
 - [Remove resources from a library](#)

- **Publishing**
 - Overview
 - Publishing flow
 - Hosts
 - Overview
 - Adobe-managed hosts
 - SFTP hosts
 - Environments
 - Overview
 - Test embed codes using Adobe Experience Platform Debugger
 - Builds
 - Libraries
 - Self-hosting libraries
 - Republish a library
 - Experience Platform Tags (China)
- **Client-side information**
 - Overview
 - Asynchronous deployment
 - Satellite object reference
 - Deploy JavaScript tags to manage customer consent
 - Content Security Policy (CSP) support
 - Subresource Integrity (SRI) support
- **Administration**
 - Overview
 - Companies and properties
 - User permissions
- **Adobe Analytics**
 - Overview
 - Shared modules
 - Release notes
- **Adobe Analytics Product String**
 - Overview
 - Release notes
- **Adobe Analytics Product String Builder**
- **Adobe Analytics via Adobe Experience Platform Web SDK**
- **Common Analytics Plugins**
 - Overview
 - Release notes

4.1.3: Overview

Implement the Experience Cloud in Websites with Tags is the perfect starting point for front-end developers or technical marketers who want to learn how to implement the Adobe Experience Cloud solutions on their website.

Each lesson contains how-to exercises and foundational information to help you implement the Experience Cloud and understand its value. Demo sites are provided for you to complete the tutorial, so you can learn

the underlying techniques in a safe environment. After completing this tutorial, you should be ready to start implementing all of your marketing solutions through tags on your own website.

Reference resources:

- **Implement in Websites with Tags Tutorial**
- **Configure tags**
 - Create a tag property
 - Add the embed code
 - Add a data element, a rule and a library
 - Switch environments with the Debugger
- **Implement Solutions**
 - Add the Identity Service
 - Add Adobe Target
 - Add Adobe Analytics
 - Add Adobe Audience Manager
 - Experience Cloud Integrations
- **Publish your property**
 - Publish your Property

Section 4.2: Mobile services

4.2.1: Implement Analytics for Mobile Devices

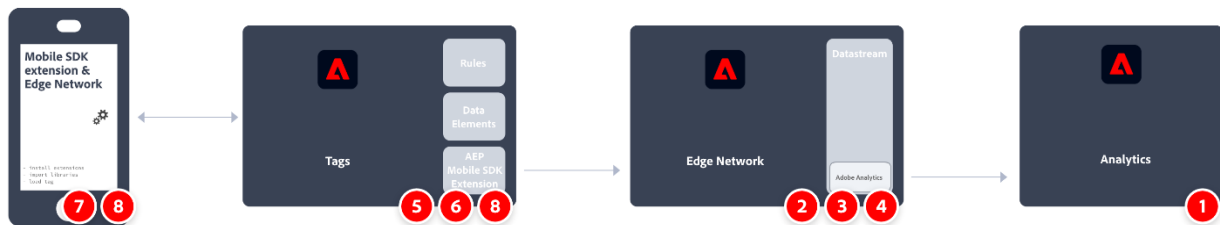
Implement Adobe Analytics using the Adobe Experience Platform Mobile SDK

The Adobe Experience Platform Mobile SDK helps power Adobe’s Experience Cloud solutions and services in your mobile apps. It is available for Android™, iOS, and various cross-platform development frameworks. Configuration is handled through Adobe Experience Platform Data Collection.

IMPORTANT: An Adobe Analytics extension is also available in Adobe Experience Platform Data Collection. If you install this extension, you do not take advantage of XDM or the Edge Network.

Adobe Experience Platform SDK

A high-level overview of the implementation tasks:

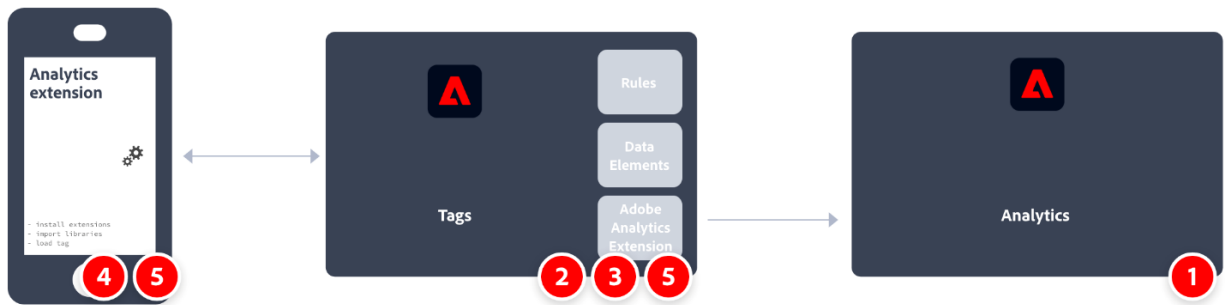


	Task	More Information
1	Ensure you have defined a report suite .	Report Suite Manager
2	Setup schemas and datasets. To standardize data collection for use across applications that leverage Adobe Experience Platform, Adobe has created the open and publicly documented standard, Experience Data Model (XDM).	Schemas UI overview and Datasets UI overview
3	Configure a datastream. A datastream represents the server-side configuration when implementing the Adobe Experience Platform Web SDK.	Configure a datastream
4	Add an Adobe Analytics service to your datastream. That service controls whether and how data is sent to Adobe Analytics.	Add Adobe Analytics service to a datastream
5	Create a mobile property. A property is a container that you fill with extensions, rules, data elements, and libraries.	Set up a mobile property
6	Install the Adobe Experience Platform Edge Network extension in the mobile tag property and configure the datastream in the extension.	Adobe Experience Platform Edge Network
7	Use code in your app to register the necessary extensions and load your tag configuration.	Set up the configuration

8	Implement and test functionality using combination of tag's data elements, rules, additional extensions, and SDK API calls in your app. Inspect, validate, and debug data collection and experiences for your mobile application.	Use the sample application
9	Extend and validate your mobile app implementation before pushing it out to production.	

Adobe Analytics extension.

A high-level overview of the implementation tasks:



	Task	More Information
1	Ensure you have defined a report suite .	Report Suite Manager
2	Setup schemas and datasets . To standardize data collection for use across applications that leverage Adobe Experience Platform, Adobe has created the open and publicly documented standard, Experience Data Model (XDM).	Schemas UI overview and Datasets UI overview
3	Install the Adobe Analytics extension in the mobile tag property and configure the extension to point to your report suite.	Adobe Analytics extension for mobile property
4	Use code in your app to register the necessary extensions and load your tag configuration.	Set up the configuration
5	Implement and test functionality using combination of tag's data elements, rules, additional extensions, and SDK API calls in your app. Inspect, validate, and debug data collection and experiences for your mobile application.	Use the sample application
6	Extend and validate your mobile app implementation before pushing it out to production.	

Adobe Experience Platform Mobile SDKs

- [iOS SDK repository](#)
- [Android SDK repository](#)

- [Documentation](#)

Version 4 Mobile SDKs

CAUTION: Support for Version 4 Mobile SDKs ended on August 31, 2021. See [Version 4 Mobile SDKs end-of-support FAQ](#) for more information.

4.2.2: Migrate Mobile Services processing rules to Adobe Analytics

This document provides you with instructions on how to migrate any additional processing rules - beyond Lifecycle Metrics - that you created in the Mobile Services UI to Adobe Analytics.

Processing rules are used to move values from context data variables to props and eVars. For example, you could place the value of a “search-term” context data variable into the value of a Commerce Variable eVar and overwrite that value on every hit. Without processing rules, context data variables are meaningless and do not populate any reports in Analytics.

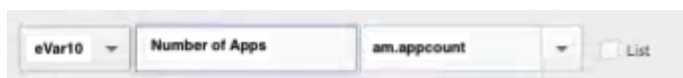
This document also shows you how to do mobile usage reporting in Analysis Workspace.

Migrate Processing Rules

If you are leveraging Mobile Services for complimentary functionality such as processing rules and usage reporting features, you can seamlessly move to the Analytics UI (processing rules UI or Analysis Workspace) to accomplish these functions. For Lifecycle Metrics, or rules that were set up in the AA processing rules UI, you don’t have to do any migration. Lifecycle Metrics are “out-of-the-box” metrics that are automatically collected when the Mobile SDK is first implemented in your app.

However, if you set up any additional processing rules in the Mobile Services UI (beyond Lifecycle Metrics), you should migrate those over so that you can edit/delete them in Analytics after you lose access to Mobile Services.

1. Log in to experience.adobe.com and go to Mobile Services.
2. Click the gear icon of a mobile app whose context variable mappings you want to migrate to Adobe Analytics.
3. Click the **Manage Variables and Metrics** menu item, then click the **Custom Variables** tab. Here, you can see which Context Variable mappings (context data) have been added to the configuration. Make a note of these configurations (or take a screenshot.) Example:



4. In Experience Cloud, switch to Adobe Analytics and make sure that you are in the same mobile report suite that you were looking at in Mobile Services.
5. Go to **Admin > Report Suites > Edit Settings > General > Processing Rules**.
6. Click **Add Rule**.
7. Ignore the conditions and proceed to add the same context variable/s that exist/s in Mobile Services.

Rule Title:
Number of apps

If All of the following are true: ?

am.appcount(Context Data) is set

+ Add Condition

Then do the following:

Overwrite value of Number of Apps (eVar10) With am.appcount(Context Data) + Add Condition

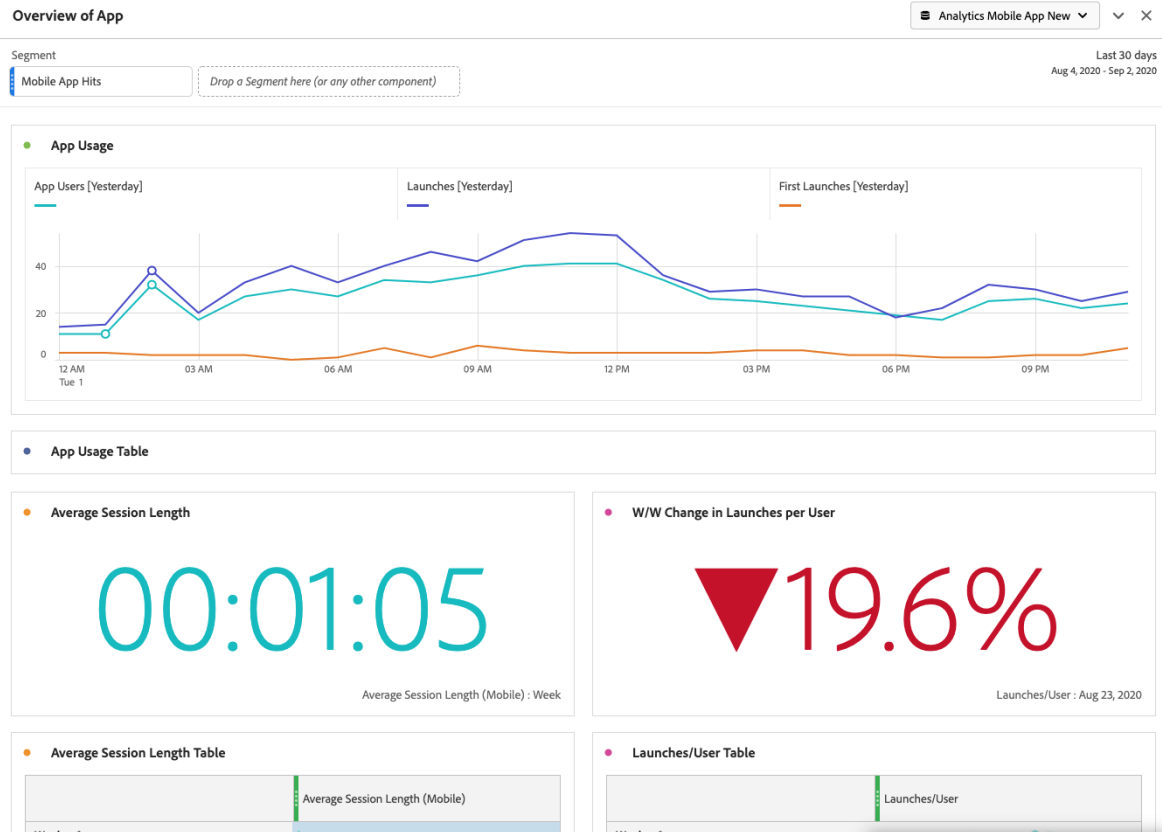
8. Click **Save**.

Mobile usage reporting in Analysis Workspace

In addition to mobile metrics and dimensions (if the report suite is enabled for Mobile Services), Analysis Workspace contains several Mobile project templates that can facilitate analysis:

- **Messaging:** Focuses on in-app and push messaging performance.
- **Location:** Includes a Map showcasing location data.
- **Key Metrics:** Keep a pulse on the key metrics of your app.
- **App Usage:** How many app users, launches, and first launches did the app have, and what was the average session length?
- **Acquisition:** How are mobile acquisition links performing?
- **Performance:** How is the app performing and where are users having problems?
- **Retention:** Who are my loyal users and what do they do?
- **Journeys:** What are the prominent usage patterns for my app?

Here is an excerpt of the Mobile App Usage template:



To access the templates:

1. Log in to experience.adobe.com and select Analytics.
2. Make sure that you are in a report suite that is enabled for Mobile Services.
3. Click the **Workspace** tab.
4. Click **Create New Project**.
5. Select any of the Mobile templates and click **Create**.

Migrate other Mobile Services functionality.

The following Mobile Services functionality also has ties into Adobe Analytics, but requires a purchased Adobe Analytics SKU:

- Acquisition Links
- Push Messaging
- In-app Messaging
- Location points-of-interest management

If you are leveraging Mobile Services for paid functionality, you don't have a viable migration path to other internal/external tools:

- For Acquisition Links, we can direct you to Adobe Partners to satisfy your need.

- Push Messaging and In-app Messaging are available in Adobe Campaign Standard and Adobe Campaign Classic (Push only). However, the underlying data set used for targeting is different. We suggest working with your Adobe account team to determine migration options for messaging data.
- For Location functionality, you are encouraged to adopt the new [Adobe Experience Platform Location Service](#), which is free to all Adobe Experience Platform customers.