Adobe® Experience Cloud
Adobe Mobile Services
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Release Notes

New release information for Adobe Mobile Services.

Mobile Services

Release date: September 20, 2018

New features, updates, and fixes to Mobile Services:

• Fixed an issue where the push notification content-available flag was always set to true when using the push test feature.
• Updated Mobile Service-related URLs from *.marketing.adobe.com to *.experiencecloud.adobe.com.

For more information about the current and past release notes for all solutions, see Adobe Experience Cloud Release Notes.
Adobe Mobile Services

Adobe Mobile Services brings together mobile marketing capabilities for mobile applications from across the Adobe Experience Cloud, which allows you to understand and improve user engagement with your mobile applications.

**Important:** Although you can configure features in the UI, these features will not work until you download the generated configuration file and add this file to the SDK. For information about downloading and configuring the SDKs, see the SDK documentation.

For the latest release notes, see *Experience Cloud Release Notes*.

**Popular Topics**

**User's Guide**
- Getting Started
- Signing In
- Roles and Permissions
- Mobile Metrics
- Messaging
- Acquisition
- Location
- Frequently Asked Questions

**Developers**
- Download Mobile SDKs and Tools
- Analytics Developer

**Community Resources**
- Experience Cloud Forum
- Adobe Marketing Cloud Community
- Idea Exchange
- Adobe Training and Tutorials
- Featured Solutions Center

**SDK Documentation**

In addition to the user's guide, you can download the Software Development Kits (SDKs), which includes a customized package that includes a pre-populated version of the configuration file that you need to configure your app in Adobe Mobile.

Native libraries are provided for the following platforms:
- **Android SDK 4.x for Experience Cloud Solutions**
- **iOS SDK 4.x for Experience Cloud Solutions**
- **Unity Plug-in for iOS and Android 4.x SDK**
- **Xamarin Components for Experience Cloud Solutions 4.x SDK**
- **Universal Windows Platform SDK 4.x for Experience Cloud Solutions**
- **Windows 8.1 Universal App Store**
  - **Windows Visual Studio Extensions for Experience Cloud Solutions 4.x SDK**
- **BlackBerry 10 SDK 4.x for Experience Cloud Solutions**

**Getting Started with Adobe Mobile Webinar**

Watch the *Getting Started with Adobe Mobile* webinar. [Play](#)
Getting Started

This information helps you understand and use with Adobe Mobile Services.

Adobe Mobile Services is composed of the following parts:

- Adobe Mobile Services UI
- Adobe Mobile SDK

For enterprise companies looking for the most effective way to increase user engagement and prove return on investment (ROI) for their mobile app investment, Adobe provides an end-to-end solution, Adobe Mobile Services, to acquire and engage app users and analyze and optimize their experiences.

Today, the mobile app landscape is dramatically different from when the smart phone was first launched. Having a mobile app to connect your customers with your brand is no longer enough; today, you must now drive a cohesive, compelling customer experience across channels and use your mobile app as a strategic touch point to engage your most loyal, high-value customers. But getting these users to interact with your app requires compelling content, contextual notifications, intelligent personalization, and integrated app analytics, and so on.

Adobe Mobile Services UI

Adobe Mobile Services helps drive mobile app engagement in the following way:

Acquire

In Acquire, you use paid, owned, and earned media to drive user acquisition for app downloads across the leading app stores. Using Adobe Mobile Services, you can accelerate the app user acquisition process.

Adobe Mobile Services provide user acquisition workflows, including acquisition tracking and deep linking, that measure the effectiveness of your channels in acquiring app users. With marketing links that track which users came from which channel, you can gain visibility into which acquisition channels are most effective in driving profitable and engaged users.

In addition, with deep linking, you can drive users directly into the app content you would like them to see and encourage them to install your app if necessary.

Acquisition offers the following key features:

- Acquisition analytics for apps
- Tracking links across app stores
- Deep linking into apps
- Post back integration with advertising networks

For more information about this phase, see Acquisition.

Analyze

In Analyze, you can understand how consumers are using the mobile app and what makes them convert or come back.

With Adobe Analytics, you can gain key insight into the funnel of how users are downloading, installing, and opening your app. You can also measure and analyze your app content and UI, conduct cohort analysis, pathing, and fallout. With Adobe Analytics, you can use a central data store to inform your marketing decisions and reduce the marketing data silos in your organization.

You can use Adobe Audience Manager to enrich your audience segments with rich data to deliver more contextual and personal experiences.

Analyze offers the following key features:
• App engagement analytics
• Pathing and funnel analysis
• Cohort and retention analysis
• Location analytics
• Extensive device and platform support

For more information about the reports you can run and analyze your customers, see Reports.

Engage

In Engage, you can use relevant push notifications and in-app messages to communicate with your users. With targeted push notifications and in-app messaging, you can ensure that users continue to return to your app. With support for segments from Analytics, you can target your push notifications to user segments that will respond and increase their propensity to convert.

Engage offers the following key features:

• Push notifications are triggered by analytics segments.
• In-app messages are triggered by real-time analytics, alerts, and new offers/content.
• Understand views, click-through rates, and downstream behavior

Adobe Mobile Messaging

You can use push and in-app notifications to communicate with your users. Push notifications are sent via the operating system on the device, while in-app messages are sent in the app when a user is actively interacting with the app. In-app messages can typically include a variety of additional formats like pop-ups and interstitials.

In Adobe Mobile, you can configure the following types of messages:

Push notifications, which appear outside your app, offer the following features:

• Drive re-engagement via relevant push notifications.
• Create, segment, and send messages to customers who have downloaded a brand’s app and accepted via opt-in to receive push notifications.
• Are sent server-side by the app stores rather than from the mobile app.

For more information about creating push notifications, see Create a push message.

In-app notifications offer the following features:

• Drive users to specific action while they are in the app session.
• Additional formats (alert, full screen) because messages are delivered by the app, rather than a push delivery network.
• Are triggered by real-time analytics.
• Allow cross-promote apps and products.
• Encourage users to leave an app store rating.
• Deliver real-time and location-based messages

For more information about creating in-app messages, see Create an in-app message.

Optimize

In Optimize, you can optimize conversions (subscriptions, commerce, ad revenue, and so on) and improve customer retention. Optimizing the user experience in your app can help you personalize your content to drive maximum ROI and conversion.

For more information about testing and Adobe Target, go to Adobe Target.

Geo-Targeting
A mobile device allows you to inherently know where a consumer is as they engage with your app or have it running in the background through GPS location. With geo-targeting, Adobe Target enables you to deliver tailored, relevant content, offers, or messages at a time where proximity matters. You can target users who are within a defined radius of a point of interest or when they are in proximity to iBeacons and with relevant push notifications.

Adobe Target for Mobile apps now takes full advantage of the enhanced segmentation and reporting available through Adobe Analytics. This means that Adobe Target can take advantage of all key app metrics in Analytics by using them to target and personalize; it also makes for deeper level of reporting on test success, allowing marketers to better understand those 'what if' questions—the answers to which might evade the app marketer experiencing pressure to show a return on app investments. The Analytics/Target for apps integration makes for a combined offering, which represents the most robust app engagement solution that is available on the market.

For more information about location, see the following content:

- Location in the user’s guide.
- Location in the Android SDK guide
- Location in the iOS SDK guide

Adobe Mobile SDK

Adobe provides an end-to-end mobile marketing solution that accelerates your customer engagement across all these areas. With one SDK, you can access the capabilities of Adobe Analytics, Adobe Campaign, and Adobe Audience Manager, which reduces the technical cost of managing multiple different SDKs.

The Adobe Mobile SDK offers the following features:

- End-to-end mobile engagement
  You can measure and optimize apps across platforms with one, lightweight, and integrated Adobe Mobile SDK.
- Acquire new customers and deliver engaging micro moments
  - Bring users back to your app again and again through targeted push notifications, including support for rich media, and in-app messaging.
  - Use deep-linking to drive app users directly into the content you want them.
- Measure and optimize experiences to drive ROI
  You can gain insight into app lifecycle metrics including funnel analysis (downloads, installs, opens), actions including session length, crashes, beacons, and messaging interactions.
- Comprehensive
  - Broad support for leading mobile operating systems and cross platform development tools.
  - Extensive device support across smartphones, tablets, wearables, and OTT (over-the-top) consoles.
- Integrated
  - One SDK for multiple solutions (Analytics, Campaign, and Audience Manager), which reduces implementation time and effort for developers.
  - Only one line of code is required for collecting the “baseline” app lifecycle metrics.
  - As you evolve your mobile strategy, you can easily activate Adobe Experience Cloud capabilities to acquire, analyze, and engage users.
- Fast and Lightweight
  - Minimizes device processing load for sending data to Adobe servers and third-party systems.
• Small footprint minimizes the size of the app package that is submitted to app stores.

For more information about the Adobe Mobile SDKs, see Android SDK 4.x for Experience Solutions and iOS SDK 4.x for Experience Cloud Solutions.

This section also contains the following information:

**Roles and Permissions**

In Adobe Analytics, you can manage roles on the Admin Tools Home page.

**Overview**

The following roles manage permissions in the Mobile Services UI:

**Analytics Admin**

An Analytics Admin manages user groups and assigns permissions, one of which is the Mobile App Admin. The Experience Cloud Admin links your Adobe ID to your Adobe Analytics account, which allows you to log in to the Mobile Services UI by using your Adobe ID. For more information about the Experience Cloud Administrator, see Administration - User Management and FAQ.

Tip: An existing Analytics Admin has the ability to assign the Analytics Admin role to any user.

For more information about this role, see the following content:

• Users
• Frequently Asked Questions - Analytics Permission Changes

**Mobile App Admin**

This role is the Admin for the Mobile Services UI.

Important: For some features, such as push messaging, the Analytics Admin must select the Segment Creation check box in User Management.

**Managing Access**

Here is some additional information about accessing options in the Mobile Services UI:

**Apps and Report Suites**

All Mobile Service apps are tied to report suites. If users do not have access to a report suite, they will not have access to that report suite's associated app.

**Mobile Services and Analytics Features**

If your company does not have an Analytics contract to access a feature in the UI, such as Push Messaging, no user in your company will have access to that feature, regardless of permission level.

**Roles and Permissions**

Here are the roles in the Mobile Services UI, with their relevant permissions:

**Analytics Admin**
• All User & Mobile App Admin Permissions
• Create App with new report suite
• Delete App from Mobile Services

⚠️ Important: Although the app has been deleted in the Mobile Services UI, the report suite still exists in Analytics.

• Manage App Settings
  • Enable Lifecycle Reporting
  • Enable Location Reporting

Mobile App Admin
• All User Permissions
• Create App with existing report suite
• Manage App Settings
  • Configure App’s Mobile SDK options
  • Configure App’s UI settings
  • Configure linked App Store apps
  • Configure App’s Universal Link options
  • Configure Push Services certs and API keys
  • Create/Update/Activate/Deactivate/Duplicate/Archive/Delete Postbacks
  • Create/Update/Archive/Delete Link Destinations
  • Create/Update/Archive Marketing Links
  • Create/Import/Update/Delete Legacy Acquisition Links
  • Create/Import/Update/Delete Places (Points of Interest) configuration
  • Create/Update/Send/Schedule/Cancel/Duplicate/Archive/Delete Push Messages
  • Create/Update/Activate/Deactivate/Duplicate/Archive/Delete In-App Messages

For more information about groups and users, see:
  • Groups
  • Add a user to a group

Mobile Services User
This role has view-only permissions and can provide feedback in the Mobile Services UI.
• Provide Feedback on Mobile Services UI
• View Apps

⚠️ Important: Users can only see the report suites for which they have access in Adobe Analytics.

• View App Settings
• Download App SDK configuration
• View all UI and SDK settings
• View Variables & Metrics configuration
• View Postbacks
• View Link Destinations
• View & Run Reports
• View Marketing Links
• View & Export Legacy Acquisition Links
• View & Export Places (Points of Interest) configuration
• View Push Messages
• View In-App Messages

Signing In

You can sign in to Adobe Mobile Services by using a web browser.

This section contains the following information:
• Sign in to Adobe Mobile Services
• Reset Your Password

Sign in to Adobe Mobile Services

You can sign in to the Adobe Mobile Services UI by using your Adobe ID, your Enterprise ID, or your Analytics ID:

Adobe ID

To sign in to the Adobe Mobile Services UI by using your Adobe ID:

2. Click Sign in with your Adobe ID.
3. Type your email address.
4. In Choose an account for, click Adobe ID.
5. Type your password.
6. Click Sign in.

⚠ Important: If you click Facebook or Google to sign in, your Facebook and Google account email must match your Adobe ID or Enterprise ID account email that has access to Adobe Analytics. If your Facebook or Google email credentials do not match your Adobe or Enterprise ID user email, contact your Administrator.

Enterprise ID

To sign in to Adobe Mobile Services UI by using your Enterprise ID:

2. Click Sign in with your Adobe ID.
3. Type your email address.
4. In Choose an account for, click Enterprise ID.
5. You will be redirected to the Enterprise sign-in page.

⚠️ Important: If you click Facebook or Google to sign in, your Facebook and Google account email must match your Adobe ID or Enterprise ID account email that has access to Adobe Analytics. If your Facebook or Google email credentials do not match your Adobe or Enterprise ID user email, contact your Administrator.

Analytics ID

To sign in to the Adobe Mobile Services UI by using your Analytics ID:

1. In a browser, type https://mobilemarketing.adobe.com/.
2. Click Sign In with your Analytics account.
3. Type your company name, user name, and password.
4. Click Sign In.

Reset Your Password

Reset your password in one of the following ways:

• Adobe Experience Cloud

If you use your Adobe ID:

1. Click Sign in with Adobe ID and click the Forgot password? link.
2. Type the email account that is associated with your Adobe ID and click Send.
3. Follow the instructions to reset your password in the email you receive.

• Adobe Analytics

If you use your company, username, and password:

1. Click the Forget Password? link.
2. Type your company name, your username, and click Continue.
3. Follow the instructions in the email that you receive.

Report Types

When customizing reports, the broad flexibility might create some questions as to the type of report that is best suited to get the data that you need.

Before customizing reports, you must understand the difference between a metric and a dimension.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric</td>
<td>A metric is used to measure your data. Metrics are values that can be counted and added and are used to see how often specific actions occur in your app. Common metrics include installs, launches, revenue, lifetime value, and logins. For example, each time your app is launched, the launches value is increased by one.</td>
</tr>
</tbody>
</table>
A dimension is used to describe your data. Dimensions are represented by using a string, or a number that acts like a string (such as a postal code), and is used to organize and segment your data. Examples of common dimensions include OS version, campaign name, product name, and mobile carrier. Each dimension has a number of specific values that are associated with that dimension. For example, the OS version dimension has values such as "iOS 7" and "Android 4.1.2".

Here are the types of reports that you can generate in the Mobile UI:

- **Over-Time Report**
- **Trended Report**
- **Filtered Over-Time Reports**
- **Ranked Reports**
- **Sunburst Report**
- **Pathing Report**
- **Funnel Report**

**Over-Time Report**

Over-time reports show how metrics are performing over a time range so you can quickly identify spikes and trends. Analysis often starts in an over-time report and moves into trended and ranked reports as you drill down to investigate the factors that might be contributing to a metric spike or trend.

For example, if you see a spike in launches, you might run a trended report that shows launches for the top 5 operating systems to see which operating systems are contributing most to the spike in launches:

To view dimension values with other metrics on an over-time report, you can use the instances metric and define a dimension filter.
**Trended Report**

Trended reports help you see how your most popular dimensions are performing against a metric. You can use this report to determine which values are contributing most to a change in a metric.

To view a trended report for a dimension, add a sticky filter (for example, Operating System = iOS 6.0.1) to an over-time report to view the same data. As a bonus, you can add five additional metrics to the filtered over-time report.

**Filtered Over-Time Reports**

If you have a specific dimension value that you want to view, you can add a sticky filter to an over-time report. The following report shows 30 days' worth of launches, upgrades, and crashes for a specific operating system version.
**Ranked Reports**

Ranked reports show you how often the top 50 dimension contribute to a metric. This report is useful to view total contribution for a date range across a large number of values.

![Ranked Report Chart]

**Sunburst Report**

Sunburst reports provide, for example, the base report along with breakdowns. The visualization uses height to show the metric and the performance differences between the metrics. Each concentric circle represents an audience segment in the category for that circle. You can take actions on an audience, such as applying a Sticky Filter, hiding a metric, and viewing metrics.

You can view the report an in-product tutorial that describes how to interact with a sunburst chart.

To start the tutorial:

1. In Manage App Settings, click Usage.
2. Click Technology > Technology Breakdown.
3. In the title bar of the report, click Customize, and click the information icon ⚡.
Pathing Report
A Pathing report is based on path analysis and displays a pathing chart that represents paths that are taken from one state in the app to another state.

Each node is shaped like a box and represents a state in the users' paths through an app. For example, in the illustration above, the top node represents the number of users that launched the app and selected a photo from the gallery.

Funnel Report
Funnel reports allow you to identify where customers abandon a marketing campaign or divert from a defined conversion path while interacting with your mobile app. You can also use the Funnel report to compare the actions of different segments.

The funnel visualization lets you see where customers fall out of the process. Gaining visibility into customer decisions at each step helps you understand where customers are being deterred, what path they tend to follow, and when they leave your app.
Mobile Metrics

You can measure different metrics by using Adobe Mobile and collect the metrics that you want to track for your app. The following types of metrics are measured:

App launches, upgrades, and crashes

These metrics provide a view into the general health and usage of your app. You can track the number of launches, number of users on each version of your app, crashes, and so on. These metrics, along with overall revenue (if you provide a paid app), are usually the starting point for mobile app measurement.

Usage and retention

Usage metrics help you understand average session length, daily and monthly engaged users, upgrades, and other insights that let you know how and how often your app is being used. Retention reports quickly shows user retention levels the day after the initial launch, after 7 days, and after 28 days.

On Android devices, you can use Google Play referrer tracking to measure how users are getting to the app store before they download your app.

Revenue

You can view revenue collected by app stores, and revenue measured directly using in-app purchase events. Other cart metrics are available by Customize Reports.

App Events

App events are the Key Performance Indicators (KPIs) that you define to measure the success of your app. Depending on the type of app you provide, KPIs will vary from articles read and levels completed to lifetime revenue.

App States

States are the different views that are provided by your app. States are viewed in a pathing report, so a good way to define states is to think about the paths through your app that you want to measure. For example, where do users most often navigate from the initial view?

Location and Points of Interest

If GeoReporting is enabled on your Analytics report suite, several location-based reports are available. On Wi-Fi, GeoReporting accuracy is similar to that of a desktop web browsers. On a data connection, accuracy varies based on the provider and how requests are routed.

For increased accuracy, you can also add location and point of interest tracking to your app. These options allow you to report detailed latitude and longitude location data and use geo-fencing to determine when a user is in a radius of a pre-defined point of interest.

Lifetime Value

Lifetime value allows you to measure a value that persists as long as a user has your app installed. You can assign different in-app actions, positive or negative values, or increment lifetime value with the amount of each purchase.
Time to Complete

With the KPIs you measure, you can use time to complete to measure time in session and the total time (cross-session) it takes for an action to be completed. For example, you might measure how much time elapses between installation and the initial in-app purchase.

Devices

Device reports allows you to see the different device types, operating systems, and mobile carriers where your app is being used. This information is useful to plan support for the next version or to segment reports and target content.

Display Mobile Metrics

You can display the key performance metrics of the apps that you most recently viewed. By default, you can view up to 12 apps. You can change the date range and create filters to segment the data and edit any app on the Overview page.

The metrics that display for each app reflect the key metrics that you selected when you created the app. For more information, see Add a New App.

If the app you want to view is not displayed, search for it by typing the app’s name or by clicking the drop-down list in All Apps.

In Overview, you can perform the following tasks:

- Change Date Range
- Filter Data
- Display Key Performance Indicators
- Edit an App’s Settings

Change Date Range

The previous 30 days of data displays for key metrics. You can change this by clicking the calendar icon in the top right-hand side. You can select a date range or a pre-determined time frame from the drop-down list.

Filter Data

You can use filters to segment the data for each app.

For example, you can filter the data by App Version and by Device Type.

To create a filter:

1. Click the Filter icon to display the Sticky Filter dialog box.
2. Click Add Rule, select an option from the drop-down list, and type the necessary information.
   
   For example, you might select App Version and type 4.5 for the version. You could select Device Type and type Android.

   Tip: You can create complex filters by using AND and OR statements.

3. Click Update.

   Tip: A blue bubble displays next to the Filter icon to indicate the number of active filters.

To cancel filters, click the Filter icon, and click Cancel.
Display Key Performance Indicators

Click the name of the app to display details about the key performance indicators. The lines on the chart are color coded, and you can mouse over the data point to display the statistics for specific dates. To drill down, click the > icon next to Key Performance Indicators. The lines on the chart are color coded, and you can mouse over any data point to see statistics for specific dates. Click a column header in the table to sort the data in ascending or descending order.

Edit an App's Settings

1. Click the gear icon in any app's tile to open the App Information page.
2. Edit the app's settings.
   
   For more information about each setting, see Configuring your App.
3. Click Save.

Mobile Metrics and Dimensions Reference

Here is the reference information for the default mobile metrics and dimensions.

The following sections contain more information:

- **Metrics**
- **Dimensions**

**Tip:** The dimension and metric permissions that are set in Adobe Analytics apply to Mobile Services. If you attempt to run a report without proper permissions, you will receive an error.

### Metrics

<table>
<thead>
<tr>
<th>Event</th>
<th>Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Launches</td>
<td>Triggered on the first run after an installation or a re-installation.</td>
</tr>
<tr>
<td>Upgrades</td>
<td>Triggered on the first run after an upgrade or when the version number changes.</td>
</tr>
<tr>
<td>Daily Engaged Users</td>
<td>Triggered when the application is used on a particular day.</td>
</tr>
<tr>
<td></td>
<td><strong>Tip:</strong> The Daily Engaged Users event is not automatically stored in an Analytics metric. You must create a processing rule that sets a custom event to capture this metric.</td>
</tr>
<tr>
<td>Monthly Engaged Users</td>
<td>Triggered when the application is used during a month.</td>
</tr>
<tr>
<td></td>
<td><strong>Tip:</strong> The Monthly Engaged Users event is not automatically stored in an Analytics metric. You must create a processing rule that sets a custom event to capture this metric.</td>
</tr>
</tbody>
</table>
## Configuration

<table>
<thead>
<tr>
<th>Event</th>
<th>Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Launches</td>
<td>Triggered on a run that is not an install or an upgrade. This also triggers when the application is brought out of the background. By default, a new launch triggers when the application is in the background for five or more minutes. The amount of background time before triggering a new launch can be configured in <strong>SDK Analytics Options</strong> on <strong>Manage App Settings</strong>. For more information, see the <strong>Session Timeout (Seconds)</strong> row in <strong>Configure SDK Analytics Options</strong>.</td>
</tr>
<tr>
<td></td>
<td><strong>Important:</strong> Because how visits in Adobe Analytics and mobile app launches in Adobe Mobile Services are calculated, you might see different results in reporting. For more information, see <strong>Compare Visits and Mobile App Launches</strong>.</td>
</tr>
<tr>
<td></td>
<td><strong>Tip:</strong> The application is considered to crash if quit is not called.</td>
</tr>
<tr>
<td>Crashes</td>
<td>Triggered when the application does not correctly exit. This event is sent when the application starts after a crash.</td>
</tr>
<tr>
<td>Total Session Length</td>
<td>Aggregated total session length.</td>
</tr>
</tbody>
</table>

## Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install Date</td>
<td>Date of the first launch after the installation. The date is in the <strong>MM/DD/YYYY</strong> format.</td>
</tr>
</tbody>
</table>
| App ID | Stores the Application name and version in the following format:  

```
[AppName] [BundleVersion]
```

For example, `myapp 1.1`. |
<p>| Launch Number | Number of times the application was launched or brought out of the background. |
| Days Since First Use | Number of days since the first run. |
| Days Since Last Use | Number of days since the last use. |
| Hour of Day | Measures the hour in which the app was launched and uses the 24-hour numerical format. This dimension is also used for time parting to determine peak usage times. |
| Day of Week | Number of the week day the app was launched. |</p>
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>Operating system of the device.</td>
</tr>
<tr>
<td>Operating System Version</td>
<td>Operating system version.</td>
</tr>
<tr>
<td>Days Since Last Upgrade</td>
<td>Number of days since the application version number has changed.</td>
</tr>
<tr>
<td>Launches Since Last Upgrade</td>
<td>Number of launches since the application version number has changed.</td>
</tr>
<tr>
<td>Device Name</td>
<td>Stores the device name.</td>
</tr>
<tr>
<td></td>
<td><strong>iOS</strong>: Comma-separated, two-digit string that identifies the iOS device.</td>
</tr>
<tr>
<td></td>
<td>The first number typically represents the device generation, and the second</td>
</tr>
<tr>
<td></td>
<td>number typically versions different members of the device family. For a</td>
</tr>
<tr>
<td></td>
<td>complete list of common device names, see <em>iOS Device Versions</em>.</td>
</tr>
<tr>
<td>Carrier Name</td>
<td>Stores the name of the mobile service provider.</td>
</tr>
<tr>
<td>Resolution</td>
<td>Width and height in actual pixels.</td>
</tr>
</tbody>
</table>
Manage Apps

On the Manage Apps page, you can create, manage, and delete apps.

For more information, see:

Add a New App

You can use this information to create a new app and configure its key metrics; configure the SDK options for Adobe Analytics and Adobe Audience Manager; configure acquisition and ID service options; and download the configuration file, SDKs, and developer and tester tools.

These instructions will help you add a new app and configure Adobe Analytics and Adobe Audience Manager integrations.

Before you can configure your app, you must add it in the Adobe Mobile Services user interface. After you create the app, the correct configuration is generated, and you can provide this configuration to the developers who are implementing the Mobile SDK for the app.

1. **Sign in** to Adobe Mobile Services and complete one of the following tasks:
   - Click **Create New** to create an app.
   - To add additional apps, click **Manage Apps** in the left navigation menu, then click **Add**.

   Tip: To manage existing apps, click **Manage Apps** in the left navigation menu and click the app that you want to modify. You can make changes on the **App Information** page.

2. Type information in the following fields:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report Suite</td>
<td>Specify the report suite in which reporting data will be collected and stored in Adobe Analytics. Each app is connected to one Analytics report suite. If you are sending app data to multiple reports suites, add a new app for each report suite. If you have been given Analytics administrator privileges in Adobe Mobile, you can create a new report suite in Adobe Mobile. To create a new report suite, select the <strong>New Report Suite</strong> and type information into the following fields:</td>
</tr>
<tr>
<td></td>
<td>• <strong>Report Suite ID</strong>: This ID is used to uniquely identify the report suite in Adobe Analytics. Your company prefix is automatically added to the beginning of the ID.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Copy Settings From</strong>: The variables, events, processing rules, and other settings are set up in the new report suite exactly like they are in this report suite. A report suite created in Mobile Services is offline-enabled (or time stamped) only if the <strong>Copy Settings From</strong> report suite used was the Mobile App Template, or if you create a report suite that is offline enabled.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Timezone</strong>: All reporting dates are in this time zone. This setting attempts to use a time zone close to what your browser uses.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Currency</strong>: Revenue is both tracked and reported as this type of currency.</td>
</tr>
<tr>
<td>Setting</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Tip:</strong> To use a virtual reporting suite (VRS), see Virtual Report Suites.</td>
<td></td>
</tr>
<tr>
<td>Icon</td>
<td>(Optional) To browse to and select an icon for your app, click the A icon.</td>
</tr>
<tr>
<td>Name</td>
<td>(Optional) Type a descriptive name for the app. A descriptive name helps you quickly locate an app. A meaningful name can help you quickly understand the app's purpose and settings.</td>
</tr>
</tbody>
</table>
| Type | Select a type from the drop-down list. The available reports that display in the left navigation menu vary depending on the type of app you select. Here are the available types:  
  • Standard  
    You can leave the Standard option selected for most apps.  
  • Publication:  
    You can select this option if your app was built using Adobe Digital Publishing Suite.  
  • Game  
    This option is similar to the Standard option, except that Game updates the terminology used in the reports to terms for games. For example, users is changed to players. Game-specific reports are automatically shown for game apps. |
| Description | (Optional) Type a description for the app. |

3. Click **Save** to add the new app.  
After the app has been added, you can check the **App Information** page about configuring additional options. For more information, see *Manage App Settings*.

**Virtual Report Suites**

A virtual report suite (VRS) is a report suite that is created by applying one or more segment definition to a report suite. This allows users to maintain their data in one report suite but manage the data as if it were in separate report suites.

Apps that use VRSs do the same thing as apps that use a regular report suite, except for the management of the following features:

- Processing rules
- evars/props/listvars/events
- Timestamp enabled option
- Dimension flags (lifecycle, location, and so on)
- Classifications

These values are managed in the parent report suite and are shared with the VRSs that belong to the same parent report suite. The following areas can be accessed in the Adobe Mobile Services UI, independent of the parent report suite:
• The config file
• Manage Points of Interest
• Manage Link Destinations
• Manage Postbacks
• Message links
• Acquisition

A VRS can help you achieve the following tasks:

• Restrict data access

A multi-national company has an app that sends data to a report suite for all geo locations. However, the company wants to restrict the business user in one region from viewing the data in another region. The company’s admin can create a VRS to segment users by region and give permission to the VRS only to business user who manages the region.

This restriction prevents business users from viewing data that is not related to their region. For example, a business user in EMEA does not need to see data for the APAC region.

• Allow control of in-app/push messaging, location POIs, acquisition, and postbacks with all data being sent to one report suite.

A multi-national company wants all the data to be sent to the same report suite for all geo locations. However, the company wants the marketing team from each region to handle their own in-app/push messaging. The company’s admin can create regional VRSs, and each team can manage their own app based on that VRS.

The regional team builds their app by using the config file from the VRS. The data will be sent to the parent report suite, but in-app/push messaging, location POIs, acquisition, and postbacks are controlled in the app that was created from the VRS.

Create a Virtual Report Suite in Adobe Analytics

⚠️ Important: Only Adobe Analytics admins can create and modify virtual report suites in Adobe Analytics.

To create a virtual report suite, see Creating Virtual Report Suites.

Each VRS has a unique ID. To view the parent report suite ID in Adobe Mobile Services UI, on Manage App Settings, click More Details in the App Information section.

In the Adobe Mobile Services UI, you can use a VRS to create an app and segment data to a specific group in your organization. This way, for example, a business user in Spain cannot see the data that is relevant to a business user in Japan.

💡 Tip: You cannot modify the values that are inherited from the parent report suite.

A VRS is a server-side segment definition that is attached to a parent report suite. As a result, you cannot perform data collection to a VRS, because the SDK sends hits only to the parent report suite, which in turn records the hits.

Virtual Report Suite in Adobe Mobile Services and Data Collection

In the Adobe Mobile Services, you can create an app based on a parent report suite or a virtual report suite. When creating an app based on a virtual report suite, we recommend that you align the VRS segment with the definition of the app.

💡 Tip: Push certifications are attached at the app level in the Mobile Services UI.

To ensure that your push messages are sent correctly, the audience segment must be correctly defined. For more information, see Audience: Define and Configure Audience Segments for Push Messages.
**Understanding Time Zones**

The time zone property on the Manage App Settings page in the Adobe Mobile Services UI is different from the time zone property that you use to create the VRS in Adobe Analytics. The property on the Manage App Settings page is inherited from the parent report suite, which is used to send data to Adobe Analytics. The property that you specify when you create the VRS in Adobe Analytics is used to display the reports in Adobe Mobile Services UI and could be different than the parent report suite.

**Select a Virtual Report Suite in the Mobile Services UI**

To use a VRS when you create an app, select the VRS from the Report Suite drop-down list on the App Information page. This list contains parent and virtual reporting suites.

💡 *Tip:* To select a VRS from the list, locate an option with the blue dot and the `vrs_<company_name>_<unique name>` naming convention.

**Virtual Report Suite Properties**

Here are the properties for VRSs:

💡 *Tip:* The read-only properties are inherited from the parent report suite.

<table>
<thead>
<tr>
<th>Property</th>
<th>Inherited from the parent reporting suite</th>
<th>Editable?</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>target.clientCode</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>target.timeout</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>audienceManager.server</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>analytics.rsids</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>analytics.server</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>analytics.appid</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>analytics.ssl</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>analytics.offlineEnabled</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>Inherited from the parent reporting suite</td>
<td>Editable?</td>
<td>Notes</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------------------------</td>
<td>-----------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>analytics.charset</td>
<td>Yes</td>
<td>No</td>
<td>Should be the parent reporting suite, if users do not want their data to be inconsistent.</td>
</tr>
<tr>
<td>analytics.lifecycleTimeout</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>analytics.privacyDefault</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>analytics.batchLimit</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>analytics.timezone</td>
<td>Yes</td>
<td>Yes, when you first create the app.</td>
<td>This time zone property is used to send data to Adobe Analytics and is different from the time zone property that is set when a VRS is created.</td>
</tr>
<tr>
<td>analytics.timezoneOffset</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>analytics.referrerTimeout</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>analytics.backdateSessionInfo</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Analytics.poi</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Messages</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

**Additional Information**

Here is some additional information from the Adobe Analytics documentation:

- For more information about VRSs, see [Virtual Report Suites](#).
- For more information about planning a VRS implementation, see [Virtual Report Suite Workflo](#).

**App Store**

The appFigures data connector integration combines the power of the appFigures integrated mobile app store analytics and the direct app tracking of Adobe Analytics to create powerful analytics and optimization opportunities for your organization.

💡 **Tip**: In the Mobile Services UI, the App Store menu item and associated reports display in the left navigation menu after you configure the integration.

*appFigures Data Connector for Adobe Analytics* contains the following information:

- Key benefits and features of the integration
• Implementing the integration, including:
  • Adobe Analytics requirements
  • appFigures requirements
  • Pricing
  • Analytics integration variables
• Configuring the integration
• Metrics and dimensions that are included in the integration
• Segment app data

For more information about the App Store report, see App Store Overview Report.

Add an App from an App Store

You can add an app from the Apple App Store or from Google Play.

1. Complete one of the following tasks:
   • Sign in to Adobe Mobile Services and click Create New.
   • To add additional apps, click Manage Apps in the left navigation menu and click Add.

2. Click Add App Store App.
3. Type information in the following fields:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>App Store</td>
<td>Select an app store:</td>
</tr>
<tr>
<td></td>
<td>• Apple App Store</td>
</tr>
<tr>
<td></td>
<td>• Google Play</td>
</tr>
<tr>
<td>Search by Name</td>
<td>Search for the app store by name and select the app. Preview information about the selected app helps you determine whether you selected the correct app.</td>
</tr>
<tr>
<td>App ID</td>
<td>Type the App ID.</td>
</tr>
</tbody>
</table>

4. Click Add.

Delete an App

You can delete an app from Adobe Mobile.

1. Click Manage Apps.
2. Select the check box next to app(s) that you want to delete.

**Important:** Deleting an app from Adobe Mobile removes the app from the Adobe Mobile UI, but the app is not removed from the Apple App Store or Google Play. The report suite and data will still be available in Adobe Analytics, but you cannot manage it in Adobe Mobile.
3. Click **Delete Selected**.
4. Click **Delete**.
Manage App Settings

Managing your apps involves configuring an App and managing a variety of variables and metrics.

⚠️ **Important:** To edit this page, you must be a member of the Mobile App Admin group. To determine whether you are a member of this group, click Admin Tools > User Management > Groups > Mobile App Admin.

To configure and manage your app see the following information:

## Configuring your App

On the Manage App Settings page, you can make the following types of changes:

- **App Information**
  
  This section includes information such as the name of the app, the type of app, key metrics, lifecycle, and location reports.

- **Lifecycle Reports**
  
  🌩️ **Tip:** If you created the report suite in Adobe Analytics, you must enable lifecycle reports. If you created the report suite in Adobe Mobile, this option is enabled by default.

  This report allows you to measure the following metrics:

  - **Acquisition**
    
    Track referring URLs for app-download campaigns. For more information, see Acquisition.

  - **Lifecycle**
    
    Track the metrics and dimensions that can be measured automatically by the mobile library after lifecycle is implemented. For more information, see the following sections:

    - [iOS SDK Lifecycle Metrics](#)
    - [Android Lifecycle Metrics](#)
    - [Windows Lifecycle Metrics](#)
    - [BlackBerry Lifecycle Metrics](#)

  - **App Actions**
    
    Enable reports and pathing based on in-app actions.

  - **Lifetime Value**
    
    Understand how users accrue value over time by using app KPIs, such as purchases, ad views, video completes, social shares, photo uploads, and more.

  - **Timed Events**
    
    Measure the amount of time that elapses (in-app and total time) between key app actions, such as time before first purchase.

- **Location Reports**
  
  This option lets you enable reports to track latitude and longitude and identify specific Points of Interest (POIs). You can also track bluetooth beacons (UUID, major, minor, and proximity).
• App SDKs and Developer Tester Tools

💡 **Prerequisite:** Before you download the SDKs and tools, you must [Configure the SDK Analytics Options](#).

When you are ready to upgrade to the 4.x SDKs, or if you are working on a new app, download the latest SDKs and development tools from the bottom of the Manage App Settings page.

After set up is complete, you can send the configuration file to your developers so that data can be collected properly. If you are not ready to download SDKs and tools now, click [Manage App Settings](#) and click the app to display the [App Information](#) page at any time.

For information about configuring these options, see the following content:

### Configure SDK Analytics Options

You can configure the SDK Analytics options on the [Manage App Settings](#) page while creating a new app or editing an existing app.

Type information in the following fields under **SDK Analytics Options**:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use HTTPS</td>
<td>Enable HTTPS for added security.</td>
</tr>
<tr>
<td>Backdate Session Hits</td>
<td>Enable/disable the ability for the Adobe SDK to backdate session info hits. Session info hits currently consist of crashes and session length. When enabled, the Adobe SDK will backdate the session info hit to 1 second after the last hit of the previous session. This means that crashes and session data will correlate with the correct date in which they happened. One hit will be backdated on every new launch of the application. When disabled, the Adobe SDK will attach the session info to the current lifecycle.</td>
</tr>
<tr>
<td>Privacy</td>
<td>Select a privacy option:</td>
</tr>
<tr>
<td></td>
<td>• Send Data Until Opt-Out</td>
</tr>
<tr>
<td></td>
<td>• Hold Data Until Opt-In</td>
</tr>
<tr>
<td>Session Timeout (Seconds)</td>
<td>Specify the session timeout value. The default is 300 seconds.</td>
</tr>
<tr>
<td></td>
<td>Specifies the length of time, in seconds, that must elapse between app launches before the launch is considered a new session. This timeout also applies when your application is sent to the background and reactivated. The time that your app spends in the background is not included in the session length.</td>
</tr>
<tr>
<td>Batch Limit</td>
<td>Specify how many hits you want to queue before sending data. Set to 0 to send hits immediately. The batch limit represents the threshold for number of hits to be sent in consecutive calls. For example, if this option is set to 10, each hit prior to the 10th hit will be stored in the queue. When the 10th hit comes in, all 10 hits are sent consecutively.</td>
</tr>
</tbody>
</table>
Setting | Description
--- | ---
**More Details** | Click the More Details link to view the report suite ID and tracking server, enable or disable offline tracking, and view the character encoding model being used (such as UTF-8). When offline tracking is enabled, data generated by the device while offline is timestamped and sent later. If this option is disabled, offline data is discarded.

**Download Mobile SDKs and Tools**

This information helps you download Mobile Services SDKs and tools to help you with your Mobile Services implementation.

**App SDK Downloads**

You can download an `ADBMobileConfig.json` file that is customized with the app settings you have selected. For example, the configuration file is pre-populated with your report suite ID, tracking server, and the HTTPS, default privacy setting, and session timeout you selected on this screen.

If you download the mobile SDK, the customized `ADBMobileConfig.json` file is included automatically.

**Native Libraries**

Configure your app in Adobe Mobile services so you can download a customized package that includes a pre-populated version of the configuration file. [iOS instructions](#) | [Android instructions](#)

Native libraries are provided for iOS, Android, Windows Phone 8, Blackberry, Symbian, and others:

- Unity Plug-in for iOS and Android 4.x SDK
- Windows Visual Studio Extensions for Experience Cloud Solutions 4.x SDK
- Xamarin Components for Experience Cloud Solutions 4.x SDK
- iOS SDK 4.x for Experience Cloud Solutions
- Android SDK 4.x for Experience Cloud Solutions
- Universal Windows Platform SDK 4.x for Experience Cloud Solutions
- Windows 8.1 Universal App Store
- BlackBerry 10 SDK 4.x for Experience Cloud Solutions

**Configure Audience Manager Options**

You can configure the SDK Audience Manager options on the Manage App Settings page while creating a new app or editing an existing app.

While adding a new app or editing an existing app, type information in the fields under *SDK Audience Manager Options*:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subdomain</td>
<td>Type the subdomain of the Audience Manager server that your app uses. For example, you can type <code>client.demdex.net</code>. If you are not using Adobe Audience Manager, leave this field blank.</td>
</tr>
</tbody>
</table>
Configure SDK Acquisition Options

You can configure the SDK Acquisition options on the Manage App Settings page while creating a new app or editing an existing app.

Type information in the following fields under SDK Acquisition Options:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable</td>
<td>Create app store links that allow you to download applications directly from the Apple App Store and Google Play. The links you create help you attribute your success events to the downloads. For more information, see Acquisition.</td>
</tr>
<tr>
<td>Referrer Timeout (Seconds)</td>
<td>Specify the referrer timeout value. The default is 5 seconds. This value specifies the number of seconds to wait for acquisition information before sending the First Launch hit.</td>
</tr>
<tr>
<td>More Details</td>
<td>Click the More Details link to view the app’s Tracking ID.</td>
</tr>
</tbody>
</table>

Universal Links and App Links

Starting in iOS 9.2, deep linking is no longer supported. You must use Universal Links (iOS) and App Links (Android) for deep linking into your app or website.

Universal Links and App Links

A Universal Link is a link that can be handled by an iOS application or the browser. This experience is known as deeplinking. However, starting in iOS 9.2, deeplinking is no longer supported. For more information about Universal Links, see the Apple documentation on Universal Links.

An App Link is the Android version of the Universal Link. Although deeplinking might currently still work on all Android operating systems, Adobe Mobile Services supports App Links because a marketing link should be consistent across all platforms. For more information about App Links, see the Android documentation on App Links.

Setting up site-association documents in Adobe Mobile Services

1. In the Mobile Services home page, select the app for which you want to set up Universal Links or App Links.
2. Click Manage App Settings.
3. Ensure the iOS or Android app that handles UL/AL is added to the Add App Store Apps section.

   Tip: If this section does not display, click the Add App Store App link.

4. Scroll to Universal Links and App Links Options at the bottom of the App Information page.
5. Complete one of the following tasks:
   - For iOS, select an iOS app and type the App ID.
   - For Android, select an Android app and type a SHA-256 certificate fingerprint.
6. Click **Save**.

You must provide at least the iOS App ID or one Android App selection and SHA-256 certificate or you will receive an error.

**Important:** You can update the documents by clicking **Update** from the **Universal Links and App Links Options** section. However, when you click **Update**, a warning notifies you that all Universal Links / App Links you have created in the past will be affected.

**Create a Universal / App Link**

For more information, see *Create or Edit Marketing Links*.

1. Select the app from the Mobile Services home page, expand **Acquisition**, and click **Marketing Link Builder**.
2. Click **Create New**.
3. Under **Marketing Link Options**, select **Use Universal Links or App Links**.

   If you configured the site-association documents from the steps above, this option is selected by default. If not, **Use Universal Links or App Links** is disabled and **Use Interstitials** is selected by default.

   If **Use Universal Links or App Links** is selected, an additional field titled **Custom Path** is displayed. This allows users to define the URL path after the domain with any query parameter. For example, if you type `my/universal/link?os=9.2`, your full marketing link URL becomes `https://[marketing link domain]/my/universal/link?[AMS default query parameters]&os=9.2`.

4. Click the **Decisions** tab.
5. Configure your decision tree.

   If the iOS or Android app is installed, the app will handle the deeplink with its logic, and the final destination serves only as the fallback case. (The app is not installed.) Therefore, it can only be a web link or store link.

6. Click **Save**.

**Tip:** Once a marketing link is saved, the **Marketing Links Options** cannot be altered. This is because you do not want to change the behavior of the marketing links that may have already been distributed.

**Configure SDK ID Service Options**

You can configure the Experience Cloud ID service options on the **Manage App Settings** page while creating a new app or editing an existing app.

Type information in the following fields under **ID Services Options**:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enable</strong></td>
<td>Enable this option to use the ID service. For more information, go to <em>Experience Cloud ID Service</em>.</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td>Select your organization from the drop-down list. A Experience Cloud organization is the entity that enables an administrator to configure groups and users, and to control single sign-on in the Experience Cloud. The organization functions like</td>
</tr>
<tr>
<td>Setting</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>a log-in company that spans all the Experience Cloud products and solutions. Typically, the organization is your company's name, but a company might have many organizations. For more information, see <em>Accounts and Organizations</em> in <em>Experience Cloud ID Service</em>.</td>
</tr>
</tbody>
</table>

**Configure Postbacks**

Postbacks let you send data collected by Adobe Mobile to a separate third-party server. By leveraging the same triggers and traits that you use to display an in-app message, you can configure Mobile Services to send customized data to a third-party destination.

💡 **Restriction:** To use postbacks, you must install the 4.6 SDK or later. For more information, see *Android - Postbacks* or *iOS - Postbacks*.

1. Click the name of the desired app to go to its *Manage App Settings* page and click the *Manage Postbacks* link at the top right side.
2. Click *Create Postback*.
3. Type the following information in the fields:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Postback Type</strong></td>
<td>Choose <em>Custom</em>. Templates will be available in the future.</td>
</tr>
<tr>
<td><strong>Name</strong></td>
<td>Specify a descriptive name for the postback.</td>
</tr>
<tr>
<td><strong>URL</strong></td>
<td>Specify a valid endpoint URL (along with appropriate query parameters as needed for GET requests). You obtain this URL from the party you are sending the data to (ad server or your own endpoint). For example: <a href="http://my.server.com/?user=bob&amp;zip=90210&amp;c16=4.6.0-iOS&amp;c27=cln,132">http://my.server.com/?user=bob&amp;zip=90210&amp;c16=4.6.0-iOS&amp;c27=cln,132</a></td>
</tr>
<tr>
<td><strong>Context Variable</strong></td>
<td>Highlight portions of the URL and select the desired context variable from the drop-down list. You can also simply insert context variables into the URL. The URL will replace all template variables with values from the hit.</td>
</tr>
<tr>
<td><strong>Add Post Body</strong></td>
<td>Specify any additional post body content, for example on a post request. <strong>Content Type:</strong> If you specify post body text, specify the <em>content type</em> for the post body.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>For example: application/json</td>
</tr>
<tr>
<td>Timeout (in seconds)</td>
<td>Specify the time (in seconds) to wait for the postback.</td>
</tr>
<tr>
<td>Trigger(s)</td>
<td>Specify one or more data tags and conditions that trigger the postback. For example, you could choose <strong>Crashed</strong> as the trigger and <strong>Exists</strong> as the condition to trigger the postback when the app crashes. You can also specify which metrics activate the postback. For example, you can select <strong>Device Name</strong> as the trigger, <strong>Equals</strong>, and <strong>iPhone 6 Plus</strong> as conditions to activate the postback when the app crashes on iPhone 6 Plus devices.</td>
</tr>
<tr>
<td>Trait(s)</td>
<td>Specify who can see the message when it is triggered. Options include <strong>Session Length</strong>, <strong>First Launch Date</strong>, and <strong>App ID</strong>.</td>
</tr>
</tbody>
</table>

4. Click **Save** to create the postback and add it to the **Manage Postbacks** list.

To activate the postback in the future, do one of the following:

- Select the checkbox next to the postback in the **Manage Postbacks** list and click **Activate Selected**.
- Click **Save & Activate** to save your changes and immediately activate the postback.

### Configure Push Messaging

You can use this information to help you configure the Push Services options on the **Manage App Settings** page while creating a new app or editing an existing app.

Before you configure push messaging, review the following information:

- You must perform several prerequisite tasks. For more information about these tasks, see **Prerequisites to Enable Push Messaging**.
- **Report Suite Considerations**

You can configure one app store app for Apple and one for Google in each report suite. If you need additional apps, for example, one for a production environment and one for a dev environment, set up a new app store app and a new report suite for each environment.

1. Type information in the following fields under **Push Services**:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
</table>
| Apple   | **Private Key**  
Browse to and select your valid private key (.p12, .key, or .pen).  

*Important*: If the file you select for the **Private Key** input also contains a certificate, you do not need to specify the certificate. |
| Certificate | **Certificate**                                                                 |


### Setting

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Google</strong></td>
<td><strong>API Key</strong>&lt;br&gt;Specify a valid API key.&lt;br&gt;For more information about obtaining the API key, see Configure App to use APNS or GCM.</td>
</tr>
</tbody>
</table>

Specify a valid certificate. This option is required only when the **Private Key** input does not contain a certificate.<br>For more information about obtaining the SSL certificate and private key, see Configure App to use APNS or GCM.

For more information, see the following topics:

- **Android**: Push Messaging in the Android SDK 4.x for Experience Cloud Solutions guide.
- **iOS**: Push Messaging in the iOS SDK 4.x for Experience Cloud Solutions guide.

2. Click **Save**.

### Prerequisites to Enable Push Messaging

You must complete these tasks before configuring Push Messaging in applications.

<table>
<thead>
<tr>
<th>Task</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enable the Experience Cloud for Your Company.</strong></td>
<td>Your Adobe Analytics Company must be Experience Cloud enabled. You can verify this with your Adobe account executive.</td>
</tr>
<tr>
<td><strong>Install and Configure the Mobile SDK.</strong></td>
<td>1. <strong>Install the Mobile SDK</strong>&lt;br&gt;The Push Messaging feature requires that you download and install the appropriate 4.6 (or later) Mobile SDK.&lt;br&gt;For more information, see the following content:&lt;br&gt;• Android SDK 4.x for Experience Cloud Solutions&lt;br&gt;• iOS SDK 4.x for Experience Cloud Solutions 2. <strong>Configure Push Services</strong>&lt;br&gt;You must configure push services in the Mobile SDK.&lt;br&gt;For more information, see the following content:&lt;br&gt;• Android: Push Messaging&lt;br&gt;• iOS: Push Messaging</td>
</tr>
<tr>
<td><strong>Log in to the Mobile Core Service using your Adobe ID.</strong></td>
<td><strong>Important</strong>: To use the Push Services functionality users must log in to the Mobile Core Service by using their Adobe ID and their Analytics account must be linked to their Adobe IDs. Push Services functionality is not available if users log in using their existing Adobe Analytics accounts.</td>
</tr>
<tr>
<td>Task</td>
<td>Instructions</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>If users do not have Adobe IDs, complete the following steps:</td>
<td></td>
</tr>
<tr>
<td>1. <strong>Experience Cloud Administrator</strong> invites users to the Experience Cloud.</td>
<td></td>
</tr>
<tr>
<td>2. <strong>Users</strong> create a personal Adobe ID using the instructions received from the Experience Cloud administrator. An email message is automatically sent to each user after the administrator completes the previous step.</td>
<td></td>
</tr>
<tr>
<td>3. <strong>Users</strong> log in to Mobile using their Adobe ID.</td>
<td></td>
</tr>
<tr>
<td>Each user must link the Analytics solution account from the Experience Cloud organization.</td>
<td></td>
</tr>
<tr>
<td>2. In the upper right corner, select the Analytics company name.</td>
<td></td>
</tr>
<tr>
<td>3. Click <strong>Add Organization</strong> and select <strong>Adobe SiteCatalyst/Adobe Social</strong> from the drop-down list.</td>
<td></td>
</tr>
<tr>
<td>4. Type the company name, your legacy credentials for the specified company, and click <strong>Link Account</strong>.</td>
<td></td>
</tr>
<tr>
<td>The Adobe ID is now linked to your Analytics account, company, and log-in credentials.</td>
<td></td>
</tr>
<tr>
<td>For more information, see <strong>Troubleshooting Account Linking</strong>.</td>
<td></td>
</tr>
<tr>
<td>Before you enable the ID service for your app, the <strong>Push Services</strong> section is disabled. But, after you enable the ID service, the <strong>Push Services</strong> section is enabled.</td>
<td></td>
</tr>
<tr>
<td><strong>Remember:</strong> You must click <strong>Save</strong> to save your changes and refresh the <strong>Push Services</strong>.</td>
<td></td>
</tr>
<tr>
<td><strong>Important:</strong> You can configure one app store app for Apple and one for Google in each report suite. If you need additional apps, for example, one for a production environment and one for a dev environment, set up a new app store app and a new report suite for each environment.</td>
<td></td>
</tr>
<tr>
<td>• For <strong>Apple</strong>, drag and drop your private key and/or certificate. If your private key is password-encrypted, type its password.</td>
<td></td>
</tr>
<tr>
<td>• For the <strong>Private Key</strong>, drag and drop your private-key file into the box. You can also click <strong>Browse</strong> to select the file. This file contains the private key. The certificate might also be included in this file (.p12, pkcs12, .pfx, .key, .pem).</td>
<td></td>
</tr>
<tr>
<td>• For the <strong>Private Key Password</strong>, if your private-key file is encrypted, type the password.</td>
<td></td>
</tr>
<tr>
<td>(Conditional) For the <strong>Certificate</strong>, drag and drop your certificate file into the box. You can also click <strong>Browse</strong> to select the file.</td>
<td></td>
</tr>
<tr>
<td>This field is not required if the private-key file also contains the certificate (.cert, .cer, .crt, .pem).</td>
<td></td>
</tr>
<tr>
<td>Task</td>
<td>Instructions</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
|      | • For **Google**, specify the API key for the app.  
|      | Click **Test** to validate that the app and Mobile Services are configured correctly. This option is useful for debugging and troubleshooting.  
|      | Type the device's push tokens that you want to send the message. You can send the message to multiple devices by specifying tokens in a comma-separated list. |

### Configure App to use APNS or GCM

You can configure your app to use Apple Push Notification Service (APNS) or Google Cloud Messaging (GCM).

This section contains the following platform-specific information:

- **Android Apps**
- **iOS Apps**

#### Android Apps

If GCM is not enabled in your app

To configure your Android app to use GCM, if GCM is not enabled in your app:

1. Go to [https://developers.google.com/mobile/add](https://developers.google.com/mobile/add) and log in with your **Google Dev credentials**.
2. Click **Pick a Platform** and select **Android App**.
3. Select the app and the app package name.
4. Complete the process to enable Google services for your Android app.
5. Click **Choose and Configure Services**.
6. Add Cloud Messaging by clicking the `+` button on its icon.
7. Click **Generate Configuration Files**.
8. Copy the **Server API key** and **Sender ID** for later use.

For example:

- API Key = AIzaSyC6FNgsCOpBL5eXhDvWF8979mWba6x7Roo
- Sender ID = 835015092250

**If GCM is enabled in your app**

To configure your Android app to use GCM (Google Cloud Messaging) when GCM is enabled in your app:

2. Select your app that is GCM enabled.
3. Note the **Project number** in the **Overview** section. This is the GCM Sender ID for the app.

For example:

- Project Number = 835015092250

4. Under the **APIs & Auth** header, select **Credentials**.
5. Copy the API Key under the **Public API access** section for use later.

For example:

- API Key = AIzaSyC6FNgsCOpBL5eXhDvWF8979mWba6x7Roo

**iOS Apps**

To configure your iOS app to use APNS:

1. Go to [https://developer.apple.com/account](https://developer.apple.com/account) and log in to your *Apple Developer account*.
2. Under **iOS Apps**, select **Identifiers**.
3. If you already have an App ID set up for push, skip to Step 11.
4. Press the + button to create a new App ID.
5. Type an App ID Description.
6. Type an App ID Suffix.

   **Important:** To support push, you must use an **Explicit App ID** that does not use a wild card (for example, `-com.tester.pushSample`).

7. Under **App Services**, select the **Push Notifications** check box.
8. Click **Continue**.
9. Click **Submit**.
10. Click **Done**.
11. Select your App ID that is set up to use push messaging from the list and click **Edit**.
12. If you already have a Push Certificate created, skip to Step 15.
13. Scroll down to **Push Notifications** and click the correct **Create Certificate**... button (depending on if you're creating a certificate for Development or Production).
14. Follow the steps outlined on the Apple website to create your CSR, upload it, and generate your certificate.
15. Scroll down to the **Push Notifications** section and download the SSL certificate you just created.
16. Double-click the certificate you downloaded to add it to your keychain.

**SSL Certificate and Private Key**

To get your SSL Certificate and Private Key (APNS)

1. Open **Keychain Access**.
2. Click **My Certificates** and find the appropriate **Push iOS Push Services Certificate** for your app and environment.
   
   You can identify the correct certificate by matching the bundle ID and whether it is Development or Production.
3. Expand the certificate and verify that it contains a private key.
4. Right-click the private key and select **Export "<name of key>**.
5. Go through the dialog and save your new .p12 file.
   
   You do not have to type a password.
6. In the **Private Key**, type the .p12 file.

**Managing your App**

You can track and manage the data that you receive from the app by configuring a variety of variables and metrics.

**Manage Variables and Metrics**

- **Standard Variables & Metrics**

  Each app includes variables and metrics for tracking shopping cart and purchase activities. Some purchase information cannot be handled with processing rules, so the SDK exposes the special "&&products" context data. For example, you can have variables such as cart additions, cart removals, check outs, orders, and so on. The context data has to be mapped to data in Adobe Analytics. If this variable is populated with a simple mapping from context data, this is the key that maps to it. Leave blank if the variable is populated by more complex rules in Analytics Admin Tools.

  For more information about these variables and metrics, see the following:

  - **Android**: *Product Variables*
  - **iOS**: *Product Variables*

- **Custom Variables**

  The **Custom Variables** page displays all of the custom Analytics variables that are configured for the report suite that contains your app data. On this page you can enable additional variables and map context data to Analytics variables.

**Mapping Context Data to Analytics Variables**

Click Manage App Settings > Manage Variables & Metrics > Custom Variables.

These mappings will call the same API that is used in processing rules.
Here is a list of the custom variables that you can configure:

- The **Custom Properties** (or props) answer the question "which one?" Props can be set to a text value that will be associated with other variables and metrics sent in the same hit. The values can be used to filter reports or can be listed in rank order by an associated metric.

  When a value is set for a property in a tracking call (or hit), it applies only to that call.

- The **Custom Variables** (or evars) also answer the question "which one?" However, an evar value can apply not only to the hit it is sent in, but also to variables and metrics sent in subsequent hits until the value expires or a new value is set.

- The **Custom List Variables** (or Multi-Value Variables) behave the same as variables except they allow you to capture multiple values on one hit. For more information, see *List Variables in the Adobe Analytics Implementation Guide*.

These mappings display in Analytics as being created in Mobile Services.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>The friendly name of the data collection variable.</td>
</tr>
</tbody>
</table>
If this variable is populated with a simple mapping from context data, this is the key that maps to it. Leave this field blank if the variable is populated by more complex rules in Analytics Admin Tools.

Click in the context data column and select the context data variable that you would like mapped. The drop-down list contains variables received in the past 30 days, so if the context data you want to map is not in the list you can type it.

Persistence determines the point at which a Custom Variable (eVar) value will expire or will no longer be associated with additional hits. If an eVar has expired when a hit fires, the None value will be associated with that hit for that eVar. This means that no eVar value was active when the hit fired.

You can select one of the following options:
- **Session**
  The eVar value will persist for the length of the Analytics visit.
- **Tracking Call**
  The eVar value will persist only for the tracking call or hit it in which it was included.
- **Never Expire**
  The eVar value will persist for all subsequent tracking calls.
- **Advanced**
  Adobe Analytics has a more advanced UI for setting persistence for eVars. If a persistence value is set for the eVar that is not supported in Mobile Services, this value is shown in the Mobile Services UI.

To manage eVars, click Adobe Analytics Report Suite Manager > Conversion Variables UI.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Context Data</strong></td>
<td>If this variable is populated with a simple mapping from context data, this is the key that maps to it. Leave this field blank if the variable is populated by more complex rules in Analytics Admin Tools. Click in the context data column and select the context data variable that you would like mapped. The drop-down list contains variables received in the past 30 days, so if the context data you want to map is not in the list you can type it.</td>
</tr>
</tbody>
</table>
| **Persistence**
  (Custom Variables and Custom List Variables) | Persistence determines the point at which a Custom Variable (eVar) value will expire or will no longer be associated with additional hits. If an eVar has expired when a hit fires, the None value will be associated with that hit for that eVar. This means that no eVar value was active when the hit fired. You can select one of the following options:  
  - **Session**
    The eVar value will persist for the length of the Analytics visit.  
  - **Tracking Call**
    The eVar value will persist only for the tracking call or hit it in which it was included.  
  - **Never Expire**
    The eVar value will persist for all subsequent tracking calls.  
  - **Advanced**
    Adobe Analytics has a more advanced UI for setting persistence for eVars. If a persistence value is set for the eVar that is not supported in Mobile Services, this value is shown in the Mobile Services UI. To manage eVars, click Adobe Analytics Report Suite Manager > Conversion Variables UI. |
| **List Support**
  (Custom Properties) | Enables passing multiple values to be associated with the property in a single tracking call. The delimiter must be a single character and cannot be a zero or a space. |
| **Delimiter**
  (Custom List Variables) | The delimiter must be a single character and cannot be a zero or a space. |

**Additional Analytics Variables**

You can enable additional variables using the drop-down list at the bottom of each variable section.
Select an unused variable number and type a name. You can optionally provide the context data variable that you would like stored and any additional information.

- **Custom Metrics**

  Metrics (or events) answer the questions "how much?" or "how many?" Events can increment each time the user takes an action or hold numeric values such as a price. Custom metrics include events such as an app was created, the PDF or CSV file was downloaded or exported, a campaign was saved, the SDK was downloaded, a report was run, a link to the App Store was added, an in-app message was activated, and so on.

  You can select one of the following types of custom metric types:
  
  - **Whole number**
  - **Decimal number**
  - **Currency**

- **Manage Points of Interest**

  Points of Interest allow you to define geographical locations that you can use for correlation purposes, target with in-app messages, and so on. When a hit is sent in a point of interest, the point of interest is attached to the hit. For more information about points of interest, see *Manage Points of Interest*.

- **Manage Link Destinations**

  You can create, edit, archive/unarchive, and delete link destinations. These destinations can then be called inline when building marketing links, push notifications, or in-app messages. For more information about link destinations, see *Manage Link Destinations*. 
Manage Postbacks

Postbacks let you send data collected by Adobe Mobile to a separate third-party server. Leveraging the same triggers and traits you use to display an in-app message, you can configure Mobile to send customized data to a third-party destination. For more information about postbacks, see *Configure Postbacks*. 
Reports

Usage reports display average session length, daily and monthly engaged users, upgrades, and other insights that help you understand how and how often your app is being used. Retention reports quickly shows user retention levels 1 day, 7 days, and 28 days after the initial launch.

You can generate the following reports in the Mobile UI:

Overview

The Overview report provides a snapshot of your key metrics.

Here is an example of this report:

You can change the date range for the report by clicking the calendar icon on the top right side. You can also create a sticky filter that spans different reports to see how a segment is performing across all mobile reports.

Tip: You configure the key metrics for this report while creating the app. For more information, see Configuring your App.

Users and Sessions

The Users and Sessions report displays metrics for unique visitors during the selected time frame.
You can configure the following options for this report:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Period</td>
<td>Click the Calendar icon to select a custom period or to select a preset time period from the drop-down list.</td>
</tr>
<tr>
<td>Customize</td>
<td>Customize your reports by changing the Show By options, adding metrics and filters, and adding additional series (metrics), and more</td>
</tr>
<tr>
<td></td>
<td>For more information, see Customize Reports</td>
</tr>
<tr>
<td>Filter</td>
<td>Click Filter to create a filter that spans different reports to see how a segment is performing across all mobile reports. A sticky filter allows you to define a filter that is applied to all non-pathing reports.</td>
</tr>
<tr>
<td></td>
<td>For more information, see Add Sticky Filter.</td>
</tr>
<tr>
<td>Download</td>
<td>Click PDF or CSV to download or open documents and share with users who do not have access to Mobile Services or to use it in presentations.</td>
</tr>
</tbody>
</table>

**Retention**

The Retention report (formerly known as First Launch Cohorts) is a cohort report that displays how many unique users launched your app for the first time and then launched the app again at least once in the subsequent months.

By default, this report shows the retention of groups of users based on when the users first launched the app. You can also customize this report to use a metric other than First Launch and add additional actions.

A cohort is a group of people who share a common characteristic or experience in a defined period. The Retention report takes the common characteristic of users who installed the app on a specific day, week, or month and charts how many of those users launched the app over the next X days, weeks, or months. The report displays how well the visitors were retained as active or engaged.

Here is an example of this report:
In the MO column, the total number of people who launched the app for the first time in November 2014 is displayed. In the M1 column, the number of people who launched the app again in December 2014, and so on, is displayed.

To change the date range or to edit the report's rules, click **Edit**.

The report can be populated by any variable or metric, such as Lifecycle metrics but not calculated metrics.

**Funnel**

The **Funnel** report identifies where customers abandoned a marketing campaign or diverted from a defined conversion path while interacting with your mobile app. You can also use the **Funnel** report to compare the actions of different segments.

Gaining visibility into customer decisions at each step helps you understand where they are being deterred, what path they tend to follow, and when customers leave your app.

When you open the **Funnel** report, you must create a custom funnel. For more information, see **Customize Reports**.

💡 **Tip:** To save your custom funnel, save the URL after you configure its settings and run the report. You can share the URL or save it in a document.

Here is an example of this report:
To demonstrate a simple funnel, here are the settings for a configuration that uses three funnel steps and two funnel comparisons. We assume that a demo app allows users add an item, such as photo, and then share it.

In the Customize window, there are sections to indicate that the user launched the app, added a photo from a gallery in the app, shared one or more photos from the app on social media, text message, email, and so on. The funnel comparisons allows you to compare the levels of adding and sharing photos between users of the iOS app and the Android app.

To generate the report, click Run.

Here is an example of a generated report:

The first series shows that 100 percent of users launched the app. The second series shows that a higher percentage of Android users added a photo from the gallery. The third series shows that almost half of iOS users shared the photo, but none of the Android users shared the photo. This might indicate a problem with the app that needs to be investigated.

To display additional information, mouse over any bar in the chart.

You can configure the following options for this report:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Period</td>
<td>Click the Calendar icon to select a custom period or to select a preset time period from the drop-down list.</td>
</tr>
<tr>
<td>Customize</td>
<td>Customize your reports by changing the Show By option, adding metrics and filters, and adding additional series (metrics), and more For more information, see Customize Reports</td>
</tr>
</tbody>
</table>
### View Paths

The **View Paths** report, which is based on path analysis, displays a pathing chart that represents the paths that were taken between states in the app.

*Tip:* The **View Paths** and **View Action** reports are similar because both are pathing reports. The **View Paths** report allows you to see how users navigate in your app from one screen to the next. The **View Actions** report displays the sequence of actions (events, such as clicks, selections, resizing, and so on) that users perform in your app. You can use a funnel report to combine navigation and actions in one report.

![View Paths report](image)

Each node, shaped like a box, represents a state in the users' paths through an app. For example, in the illustration above, the top node represents the number of users that launched the app and navigated to the main view.

When you click a node to provide the additional options to modify the chart, additional options such as **Focus** or **Expand** appear. For example, when you click the **MainView** state in the top node, the **Focus** and **Expand** icons appear.

To expand the view, click the + icon to display the additional paths that come in to or go from the node. In the illustration below, state 1 is launching the app, state 2 is viewing the main page of the app, and state 3 includes the following paths that users took:

- Navigating to the camera roll
• navigating to the item selector
• navigating to the camera
• navigating to the item info page

Click to isolate the node and to show the paths that are coming into and going out of the selected node. In the illustration below, the following paths preceded users who were viewing the main view of the app:

• item info
• item selector
• Camera roll
• Camera

You can focus or expand multiple nodes for a detailed view of the paths that users take in your app. For example:
You can configure the following options for this report:

<table>
<thead>
<tr>
<th>Option</th>
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<tbody>
<tr>
<td><strong>Time Period</strong></td>
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<td><strong>Download</strong></td>
<td>Click PDF or CSV to download or open documents and share with users who do not have access to Mobile Services or to use it in presentations.</td>
</tr>
</tbody>
</table>

### Action Paths

The **Action Paths** report is based on path analysis and displays a pathing chart that represents the paths that are taken from one state to another state in the app.

Both the **View Paths** and **Action Paths** reports are pathing reports. The **View Paths** report shows you how users navigate in your app from one screen to the next. The **View Actions** report shows you the sequence of actions and events, such as clicks, selections, resizing, and so on, that users perform in your app.

> **Tip:** You can use a funnel report to combine navigation and actions in one report.
Each node, shaped like a box, represents a state in the users' paths though an app. For example, in the graphic above, the top node represents the number of users who launched the app and then picked a photo from the gallery.

To display the options to modify the chart, click a node and click Focus or Expand. For example, if you click the PhotoPicked state in the top node, the Focus and Expand icons display.
To expand, click the + icon. This option displays the additional paths that come into, or go out of, the node. In the graphic below, state 1 is launching the app, state 2 is picking a photo (the item you previously expanded), and state 3 includes the different paths users took:

- Selecting an item
- Adding an item
- Dragging an item
- Scaling an item

Expanding a state is similar to a funnel.

To isolate the node and show paths that come into, and go out of the selected node, click the icon. In the graphic below, the following paths were completed before users selected a photo:

- Rotating an item
- Scaling an item
- Dragging an item
- Removing an item

Of the users who selected a photo, the following paths were completed after the photo was selected:

- Selecting an item
- Adding an item
- Dragging an item
- Scaling an item
You can focus or expand multiple nodes to get a detailed view of paths users take in your app. For example:

You can configure the following options for this report:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time Period</strong></td>
<td>Click the Calendar icon to select a custom period or to select a preset time period from the drop-down list.</td>
</tr>
<tr>
<td><strong>Customize</strong></td>
<td>Customize your reports by changing the Show By options, adding metrics and filters, and adding additional series (metrics), and more</td>
</tr>
<tr>
<td></td>
<td>For more information, see Customize Reports</td>
</tr>
</tbody>
</table>
### Option

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter</td>
<td>Click <strong>Filter</strong> to create a filter that spans different reports to see how a segment is performing across all mobile reports. A sticky filter allows you to define a filter that is applied to all non-pathing reports.&lt;br&gt;For more information, see <em>Add Sticky Filter</em>.</td>
</tr>
<tr>
<td>Download</td>
<td>Click <strong>PDF</strong> or <strong>CSV</strong> to download or open documents and share with users who do not have access to Mobile Services or to use it in presentations.</td>
</tr>
</tbody>
</table>

### Versions

The **Versions** report is an over-time report that displays information about the different versions of your app that are running on a users’ device.

Here is an example of this report:

![Versions Report Example](image)

### Technology

The **Technology** report allows you to see the different device types, operating systems, operating system versions, and mobile carriers on which your app is being used.

This report provides a sunburst visualization for your existing data, and you can use the report to discover audience segments (collections of visitors) for targeting. Creating and managing audiences is similar to creating and using segments, except that you can make the audiences available in the Experience Cloud.

This section contains the following information:

- **Navigation and Usage**
- **Add Breakdowns and Metrics**
- **Create Sticky Filter**
- **Share Reports**
Navigation and Usage

This visualization provides, for example, the base report and breakdowns, uses height to show the metric in focus, and the performance differences between the metrics. Each ring represents an audience segment in the ring's category. You can take actions on an audience, such as applying a sticky filter, hiding a metric, and viewing metrics.

💡 **Tip:** In addition to this information, you can view an in-product tutorial that describes how to interact with the sunburst chart. To start the tutorial, click **Technology Breakdown** in the title bar of the report, click **Customize**, and click the **i** icon.

The sunburst chart is interactive, and you can complete the following tasks:

- Mouse over the any part of the chart to display more information.
- Change the time period by clicking the **Calendar** icon.
- Click a slice in the ring to select the audience on which you can perform actions, such as zooming in, hiding audiences, creating in-app message, or a sticky filter.
- In the top right corner, select **Device Type** and **Device** to view information about devices and device types.
- Click a secondary metric on the right side to add it to the visualization.

You can show the secondary metric using color, height, or both.

The following table describes the standard reports and how they are populated in Mobile Services:

<table>
<thead>
<tr>
<th>Report</th>
<th>Population Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device</td>
<td>Lifecycle metrics.</td>
<td>Common metrics broken down by device type.</td>
</tr>
<tr>
<td>Operating Systems</td>
<td>Automatic.</td>
<td>Common metrics broken down by operating system.</td>
</tr>
<tr>
<td>Carriers</td>
<td>Automatic.</td>
<td>Common metrics broken down by carriers.</td>
</tr>
</tbody>
</table>

💡 **Tip:** Wi-Fi users are reported as (none) on this report.
Add Breakdowns and Metrics

You can add breakdowns and secondary metrics, which change the height of each audience relative to the other audiences in the chart.

⚠️ **Important:** The more rings you add to the sunburst, the longer it takes to process.

To add breakdowns and secondary metrics, click **Technology Breakdown** in the title bar of the report and click **Customize**.

When you click **Add Breakdown** or **Add Metric**, a new item displays with the same name as the previous item in the list. Click the newly created breakdown or metric to access a drop-down list from which you can select a new item.

Create Sticky Filter

Click a slice in the ring to select the audience for which you want to create a sticky filter and click **Sticky Filter**. This filter allows you to apply the current filters and run a new report based on the filters.

Share Reports

After you create a report, your settings are used to create a custom URL that you can copy and share.

Crashes

The **Crashes** report provides a snapshot of your app’s crashes. You can see the number of crashes and the crash rate and log in to the Apteligent user interface.

⚠️ **Important:** To display the Crash report in the left navigation, you must first integrate your app with Apteligent.
The Average Crash Rate graph displays the crash rate by date. You can hover over any date to view the crash rate for that day.

The Crash History chart displays information about each app crash, including the crash ID, crash type, number or crashes, and the crash date. To log in to Apteligent to view more details about a crash, click the link in the Crash ID column.

You can configure the following options for this report:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Period</td>
<td>Click the Calendar icon to select a custom period or to select a preset time period from the drop-down list.</td>
</tr>
<tr>
<td>Filter</td>
<td>Click Filter to create a filter that spans different reports to see how a segment is performing across all mobile reports. A sticky filter allows you to define a filter that is applied to all non-pathing reports. For more information, see Add Sticky Filter.</td>
</tr>
</tbody>
</table>

**App Store Overview Report**

The App Store Overview report gives you a snapshot of your app store metrics, including the number of downloads, in-app purchases, app store average rating, download revenue, in-app revenue, downloads by country, downloads by app store, and in-app purchases by name.
**Tip:** In the Mobile Services UI, the **App Store** menu item and **Overview** report appear in the left navigation menu after you configure the integration.

The **Overview** report contains an over-time graph that displays information about the number of app store downloads, in-app purchases made by using your app, and your app's average rating.

You can click any metric to hide or display its corresponding line. To view the data for a day, hover over that day.

**Attention:** App store metrics, such as downloads, rank, revenue, rating, and so on in Adobe Analytics require a Data Connector integration with an appropriate vendor. appFigures currently provides an integration, which requires purchasing the appropriate product and/or service from appFigures **before** you can enable the integration. For more information about Data Connector integrations, see Adobe Exchange.

The following information displays below the graph:

- **App Store Average Rating**
- **Download Revenue**
- **In-App Revenue**
- **Downloads by Country**
- **Downloads by App Store**
• **In-App Purchases by Name**

**Tip:** In addition to changing the report's date range by clicking the calendar icon in the top right, you can customize some of the drill-down reports, add filters and series (metrics), add sticky filters, and download the report in PDF or CSV format. For more information, see Customize Reports.

**App Store Average Rating**

This report displays the average rating users gave your app using app-store functionality.

You can click anywhere on the App Store Average Rating widget to display a graph and chart that displays the average rating by date. To view the data for a day, hover over that day.

**Download Revenue**

This report displays the amount of revenue that is generated by downloading your app.

**In-App Revenue**

This report displays the amount of revenue from in-app purchases that were made using your app.
**Downloads by Country**

This report displays the number of downloads for your app grouped by country.

To display a graph and chart that displays the number of downloads per country by date, click **Downloads by Country**. You can hover over a date to view the data for a day.

**Downloads by App Store**

This report displays the number of downloads for your app grouped by app store.
To display a graph and chart that displays the number of downloads per app store grouped by date, click **Downloads by App Store**. You can hover over a date to view the data for that day.

**In-App Purchases by Name**

This report displays all in-app purchases by name.

**Customize Reports**

This information helps you understand and customize the built-in reports.
You can customize your reports by changing the date range, the Show By options (display graph and table data by time periods or by dimensions), add metrics and filters, add additional series (metrics), and more.

To display the Customize rail, click the name of the app to go to its Overview page, and click Customize.

The following example shows the Users & Sessions report with the open Customize rail. This example displays data for the last 30 days, shown by days, with four active series:

- Users
- Launches
- First Launches
- App Store Downloads

The following information describes each area of the report and the Customize rail:

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In Date Ranges, the drop-down list lets you select various date ranges for your report. All data in the chart (9) and corresponding table (10) respects the selected date range.</td>
</tr>
<tr>
<td>2</td>
<td>In Show By, the drop-down list lets you select a time-based or dimension-based display for your report. For example, in the illustration, you can see that Days is selected. If you look at the dates below the chart (7) and the rows in the table (8), data is categorized by date in an over-time report. A maximum of six metrics can be reported on over-time reports by adding additional series to the report. If you select a Lifecycle dimension, you can view the top 50 values in a ranked list, the top 5 values trended by day or week, or a top 5 or 10 values breakdown.</td>
</tr>
<tr>
<td>Number</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>3</td>
<td><strong>Series</strong> represents individual metrics, such as <strong>Users</strong>, <strong>Launches</strong>, <strong>First Launches</strong>, and <strong>App Store Downloads</strong> in the above example. Each series is color coded with data in the chart (7) and table (8). You can add additional series (metrics) and even different apps in different report suites to compare data. For more information, see <em>Add Series (Metrics) to Reports</em>.</td>
</tr>
<tr>
<td>4</td>
<td>With <strong>Add Filter</strong>, you can customize the built-in reports by adding additional filters (segments). For more information, see <em>Add Filters to Reports</em>.</td>
</tr>
<tr>
<td>5</td>
<td>With <strong>Add Series</strong>, you can customize the built-in reports by adding additional series (metrics) or apps in different report suites to compare data. For more information, see <em>Add Series (Metrics) to Reports</em>.</td>
</tr>
<tr>
<td>6</td>
<td>With <strong>Sticky Filter</strong>, you can create a filter that spans different reports. For example, you might want to see how a particular segment is performing across all mobile reports. A sticky filter lets you define a filter that is applied to all non-pathing reports. For more information, see <em>Add Sticky Filter</em>.</td>
</tr>
<tr>
<td>7</td>
<td>The <strong>Data Chart</strong> displays data in an appropriate chart based on the selected metrics. Chart types include line charts, bar charts, donut charts, etc.</td>
</tr>
<tr>
<td>8</td>
<td>The <strong>Data Table</strong> displays data in tabular form. You can click a column header to sort the data in ascending or descending order.</td>
</tr>
</tbody>
</table>

**Add Filters to Reports**

This information helps you customize the built-in reports by adding additional filters (segments).

⚠️ **Important:** Mobile app metrics are also available in marketing reports & analytics, ad hoc analysis, data warehouse, and other Analytics reporting interfaces. If a breakdown or report type is not available in Adobe Mobile, it can be generated by using a different reporting interface.

In this example, we will customize the **Users & Sessions** report, but the instructions apply to any report.

1. Open your app and click **Usage > Users & Sessions**.
This report provides a complete overtime view of our app users. However, metrics for both the iOS and Android versions of this app are collected in the same report suite. We can segment users by mobile OS by adding a custom filter to the Users metric.

2. Click Customize.

3. Under Users, click Add Filter and click Add Rule,

4. Select Operating Systems, and from the drop-down list, and select iOS.
We need to repeat this step to add Android as a filter.

5. Click **And**, select **Operating Systems** from the drop-down list, and select **Android**.

Your filters should now look like the following example:

6. Click **Update**.

7. To regenerate the report, click **Run**.

   This report now shows users broken down by operating system. The report title was changed to match the filters that were applied to the report.
We can customize this report more. With the recent launch of iOS 8.3, we can add the First Launches metric with an iOS 8.3 operating system version filter to see how many customers with iOS 8.3 upgraded their apps and performed a first launch.

8. Under First Launches, click Add Filter, click Add Rule, select Operating Systems from the drop-down list, and select iOS.

9. Click And, select Operating System Versions from the drop-down list, and select iOS 8.3.

Your filters should now look like this example:
10. Click **Update** and **Run**.

This report now shows users with iOS 8.3 who have launched the app for the first time.

Take some time to test the different options on the report customization menu, and ensure that you bookmark your favorites. Report URLs in Adobe Mobile are fully functional bookmarks that can be emailed or added to your favorites.
**Add Series (Metrics) to Reports**

This information helps you customize the built-in reports by adding additional series (metrics) or apps in different report suites to compare data.

⚠️ **Important**: Mobile app metrics are also available in marketing reports & analytics, ad hoc analysis, data warehouse, and other Analytics reporting interfaces. If a breakdown or report type is not available in Adobe Mobile, it can be generated by using a different reporting interface.

In this example, we will customize the **Users & Sessions** report, but the instructions apply to any report.

1. Open your app and click **Usage > Users & Sessions**.

![Image of Users & Sessions report]

This report provides a complete overtime view of our app users. However, we want to add a series to report on app crashes.

2. Click **Customize**.
3. Scroll down and click **Add Series**.

The name of the series is populated with the same name as the last series in your list. In the previous illustration, the latest series is **App Store Downloads**, so a new series is added and is also titled **App Store Downloads**.

4. Complete one of the following tasks:

   • To add a new series (metric), click the name of the series you just created and select a new Lifecycle metric from the drop-down list.

   • To add a new app (in a different report suite) so that you can compare data across apps, click the app name in the newly created series and select the desired app.
5. (Conditional) Add filters to the new series.
   
   For more information, see *Add Filters to Reports*.

6. Click **Update** and **Run**.

**Add Sticky Filter**

Create a filter that spans different reports to see how a particular segment is performing across all mobile reports. A sticky filter lets you define a filter that is applied to all non-pathing reports.

The following example adds sticky filters for iOS and Android operating systems to the **Users & Sessions** report, but the instructions apply to any report or metric.

1. Click the **Filter** icon at the top of any report in Adobe Mobile to access the Sticky Filter dialog box.

2. Click **Add Rule**, select **Operating Systems**, and from the drop-down list, select **iOS**.
We need to repeat this step to add Android as a filter.

3. Click **And**, select **Operating Systems**, and from the drop-down list, select **Android**.

Your filters should now look like the following example:

4. Click **Update** and **Run**.
Digital Publishing Solution

You can view reports that are available to Digital Publishing Solution (DPS) customers.

DPS reports allow you to track the user data of your custom viewer app from Mobile Services. When you subscribe to the Adobe Digital Publishing Suite with a Professional or Enterprise account, you get access to base-level analytics for all your apps.

Apps that are created from DPS have access to the Adobe Mobile core service user interface through Analytics Essentials – DPS.

For more information, see *DPS Analytics in the Digital Publishing Solution Help*.

**Top 10 Articles**

The Top 10 Articles report displays a sunburst visualization for your data. This report is available only to Digital Publishing Solutions (DPS) customers.
By default, this report shows the article title, the number of readers, percentage of total readers, and the article title instances and percentage.

This report is similar to the Technology report. For information about how to navigate and use sunburst reports; add breakdowns and metrics; create target activities; create sticky filters, and share reports, see Technology. The information in the topic can be used to customize the Top 10 Articles report.

**Top 50 Articles**

The Top 50 Articles report displays a bar chart and ranked report showing the most-read articles displayed using the app. This report is available only to Digital Publishing Solutions (DPS) customers.

Although the default report displays data for the last 30 days by number of readers, you can customize the report as desired.
By default, this report shows article title and the number readers.

You can configure the following options for this report:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time Period</strong></td>
<td>Click the <em>Calendar</em> icon to select a custom period or to select a preset time period from the drop-down list.</td>
</tr>
</tbody>
</table>
| **Customize**  | Customize your reports by changing the *Show By* options, adding metrics and filters, and adding additional series (metrics), and more
                  For more information, see *Customize Reports*.                                                                                                           |
| **Filter**     | Click *Filter* to create a filter that spans different reports to see how a segment is performing across all mobile reports. A sticky filter allows you to define a filter that is applied to all non-pathing reports.
                  For more information, see *Add Sticky Filter*.                                                                                                         |
| **Download**   | Click *PDF* or *CSV* to download or open documents and share with users who do not have access to Mobile Services or to use it in presentations.                                                              |
**Social Sharing**

The **Social Sharing** report displays a sunburst visualization for your existing data. This report is available to Digital Publishing Solutions (DPS) customers only.

By default, this report shows the number of readers who shared articles in different channels, such as email, message, and so on.

This report is similar to the **Technology** report. For information about how to navigate and use sunburst reports; add breakdowns and metrics; create target activities; create sticky filters, and share reports, see **Technology**. The information in the Technology topic can be used to customize the **Social Sharing** report.
Banner Metrics

The Banner Metrics report displays a sunburst visualization for your existing data. This report is only available to Digital Publishing Solutions (DPS) customers.

By default, this report displays the following metrics:

- **Banner Name**, which is the name of the banner.
- **Readers**, which is the number of app users.
- **Banner Name Instances**, which is the number of times the banner was referenced (clicks and impressions).
- **Banner Click**, which is the number of times users clicked the banner.
- **Banner Impressions**, which is the number of times a banner was viewed (or was visible) on a browser page.

This report is similar to the Technology report. For information about how to navigate and use sunburst reports; add breakdowns and metrics; create target activities; create sticky filters, and share reports, see Technology. The information in this topic can be used to customize the Banner Metrics report.
Acquisition

Marketers can create tracking links to promote and drive traffic to their apps. These tracking links can drive users to app stores, app deep links, and interstitials, which can be correlated to in-app behavior. A marketer can create one link to route users to iOS, Android, or other platforms as appropriate.

You can create, edit, manage, and view reports on trackable mobile app marketing links.

💡 Tip: This functionality requires the Adobe Analytics - Mobile Apps or the Adobe Analytics Premium SKU.

The following Acquisition reports provide insight into how your marketing links are performing:

- Overview
- Link Report

Overview

This report displays the top campaigns that drove users to your app with information about how the campaigns performed across other tracking metadata such as acquisition source, medium, term, and content.
Link Report

This report provides a ranked view into your marketing links performance. In addition to seeing your link names with key performance metrics, this report is also customizable. For more information, see Customize Reports.

Remember the following information:

- You can click the arrow icons in the column headers to sort the data in ascending or descending order.
- To export the data to a PDF document, you can click Download.
**Acquisition Prerequisites**

Complete the following prerequisites before you can use acquisition links.

To track marketing links, ensure that you meet the following prerequisites:

1. **Mobile App Report Suite**
   
   You must create a new mobile app report suite or have an existing report suite that can collect, track, and report on data that is collected from your marketing links. For more information on creating a new mobile app report suite, see [Add a New App](#).

2. **SDK Version**

   The latest marketing link tracking functionality requires SDK version 4.9 or later.

<table>
<thead>
<tr>
<th>SDK Version</th>
<th>Supported Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Legacy Acquisition Builder</strong></td>
</tr>
<tr>
<td>4.1 to 4.5</td>
<td>Yes</td>
</tr>
<tr>
<td>4.6 to 4.9</td>
<td>Yes</td>
</tr>
<tr>
<td>4.9 or later</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. **Enable SDK Acquisition Options**

   Tracking must be enabled in the SDK configuration before links can be tracked and reported on. For more information, see [Configure Acquisition](#).

4. **Add App Store Apps**

   You must add the app from the Apple App Store or from Google Play. For more information, see [Add an App from an App Store](#).
Configure Acquisition

Acquisition tracking must be enabled in the SDK configuration before you can track and report on marketing links.

1. On the Manage App Settings page for the app, scroll to the SDK Acquisition Options section.
2. Complete the following tasks:

<table>
<thead>
<tr>
<th>UI item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable check box</td>
<td>To enable acquisition, select the check box. When you select this check box, the Referrer Timeout field becomes active, and the value changes from 0 to 5 seconds.</td>
</tr>
<tr>
<td>Referrer Timeout (seconds)</td>
<td>(Optional) This field is optional if you have already enabled the Enable check box. You can change the timeout value, which is specified in seconds. This setting specifies the time to wait for acquisition information before sending the First Launch hit. We recommend that you use the five-second default value.</td>
</tr>
</tbody>
</table>

**Important:** This value must be a non-zero value. If you enable acquisition but leave the value s zero, the acquisition links will not function.

3. Download and use the new SDK configuration file in your app.
   You have successfully configured Acquisition on iOS.

4. To enable Acquisition on Android, complete the steps in Tracking Mobile Acquisition in Mobile App Acquisition.

Destinations

Marketers can create, save, and edit link destinations, such as web, deep, or other links, that can be used while building trackable marketing links.

To create different types of link destinations, see Create and Manage Link Destinations.

You can create the following types of link destinations:

<table>
<thead>
<tr>
<th>Link Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>App Deep Link</td>
<td>App deep link destinations are URI schema deep links that direct users to a deep link in your app. For example, you can direct users to a product line in an online retailer’s mobile app.</td>
</tr>
<tr>
<td>Web Link</td>
<td>Web link destinations direct users to a specific URL. For example, you can direct users to a product line on an online retailer’s website.</td>
</tr>
<tr>
<td></td>
<td><strong>Important:</strong> Web link destinations are not tracked.</td>
</tr>
<tr>
<td>Hybrid Link</td>
<td>Hybrid links support iOS Universal Links or Android App Links.</td>
</tr>
</tbody>
</table>
For more information about how to create each type of link, see *Create New Link Destination*.

**Create and Manage Link Destinations**

In the **Manage Link Destinations** page, you can create, edit, archive/unarchive, and delete link destinations. These destinations can be called inline when building marketing links, push notifications, or in-app messages.

To display the **Manage Link Destinations** page:

1. From the left navigation menu, click **Manage Apps**.
2. Click the name of the app to display its **App Information** page.
3. In the top right side, click **Manage Link Destinations**.

The **Link Destinations** page displays all of your existing link destinations and provides options to create, archive, unarchive, edit, and delete link destinations.

For example:

![Link Destinations](image)

**Create New Link Destination**

You can create a new link destination that directs users to a web or a deep link in your app.

1. In the Mobile Services UI, click **Manage Apps**.
2. Click the name of the app to display its **App Information** page.
3. Click **Manage Link Destinations**.
4. Click **Create New**.
5. Type information in the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong></td>
<td>Type a descriptive name for your app link destination. The title displays only on the <strong>Manage Link Destinations</strong> page in the Adobe Mobile Services UI. A descriptive name helps you or others in your organization quickly find a specific link destination and can provide insight into its purpose.</td>
</tr>
<tr>
<td><strong>Link Type</strong></td>
<td>Select the desired link type: &lt;ul&gt;&lt;li&gt;App Deep Link&lt;/li&gt;&lt;/ul&gt;</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
|         | Provide a URI schema deep link (for example, yourapp://section). App deep link destinations are URI schema deep links that direct users to a deep link in your app. For example, you can direct users to a specific product line in an online retailer’s mobile app.  
• Web Link  
Type a web HTTP or HTTPS URL (example `http://adobe.com`). Web link destinations direct users to a URL. For example, you can direct users to a product line on an online retailer’s website.  
• Hybrid Link  
Type an iOS Universal Link or an Android App Link (for example, `https://yourwebsite.com`). Hybrid links support iOS Universal Links or Android App Links.                                                                                                                                                                                                                                                                 |
| App     | Select the app that is associated with the link you are going to provide.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|         | **Tip:** This information is required only if you selected an App Deep Link or a Hybrid Link in **Link Type**.                                                                                                                                                                                                                                                                                                                                                                                                         |
|         | If the app does not appear in the selection list, click **Add New App** to reference a new app from an app store.                                                                                                                                                                                                                                                                                                                                                                                                     |
| Link type | Type the actual URL for the deep, web, or hybrid link.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|         | **Tip:** The label of this field varies depending on the type of link you selected.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Notes   | Type optional notes for your destination. Additional notes display only on the **Manage Link Destinations** page in the Adobe Mobile Services UI. Additional notes can help you or others in your organization quickly find a specific link destination and can provide insight into its purpose, the campaign to which it is tied, or anything else that you feel is important.                                                                                                           |

6. Click **Save**.

**Manage Link Destinations**

You can use the **Link Destinations** page to edit, archive, unarchive, or delete existing destination.

To display the **Manage Link Destinations** page:

1. In the Mobile Services UI, click **Manage Apps**.
2. Click the name of the app to display its **App Information** page.
3. Click **Manage Link Destinations**.

![Link Destinations](image)

4. (Conditional) Complete the appropriate tasks:

   • **Edit**
     To edit an existing link destination, click its name in the list, and edit the relevant fields. For more information, see *Create New Link Destination*.

     **Important:** *It might take up to 15 minutes for these changes to take effect.*

   • **Archive**
     You can archive existing link destinations that you want to retain for future use but want to remove from the **Link Destinations** list.

     To archive existing link destinations, select one or more check boxes next to the desired items and click **Archive Selected**. Because your link destination is archived and can be unarchived at any time, you do not need to confirm your action.

   • **Unarchive**
     You can unarchive previously archived link destinations that you want to display again in the **Link Destinations** list.

     To unarchive a link destination, click **View Archive**, select one or more check boxes next to the desired items, click **Unarchive Selected**. The **View Archive** option only displays if you previously archived link destinations.

   • **Delete**
     To delete a link destination, select one or more check boxes next to the desired items, click **Delete Selected** and click **Delete** to confirm your action.

     **Important:** *Deleting a link destination is a permanent action. If you are unsure whether you want to delete a link destination, use the archive option.*

**Marketing Links Builder**

The builder helps you build marketing links that can route users to app stores and app or web link destinations. Marketers can choose destinations based on rules, such as device type or operating system of the user’s device.

The marketing links can be tracked and reported on, allowing marketers to attribute downloads, app relaunches, and other in-app events to these links.
Create or Edit Marketing Links

You can create or edit marketing links to provide deep linking into your mobile app or your website.

For more information about universal links and app links, see *Universal Links and App Links*.

1. In your app, in the left navigation pane, expand **Acquisition** and click **Marketing Link Builder**.
2. Complete one of the following tasks:
   • To create a new marketing link, click **Create New**.
   • To edit a link, click the link's name in the **Title** column.
3. Type information in the following fields:
   • **Marketing Link Name:**
     (Required) Specify a descriptive name for your marketing link. The name displays only on the **Marketing Links** page in the Adobe Mobile Services UI. A descriptive name helps you or others in your organization quickly find a specific link and can provide insight into its purpose.
   • **Unique Tracking Code:**
     (Required) Specify the desired tracking code or click 🕵️ to create a new tracking code. You can view reports that detail use of the tracking code.
   • **Add Tracking Context Data:**
     (Optional) Click the + icon and type the relevant information to track your campaign using context data. In the **Custom Context Data** drop-down list, select a preset tag or one of your own tags. Context data is used for reporting when the marketing link is deployed.

The following preset tags are available:

<table>
<thead>
<tr>
<th>Tag Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Custom Context Data** | Specify the key and value.  
If you add custom context data, you must create a processing rule. For more information, see *Processing Rules* in *Analytics Help*. |
| **Source**            | Specify the original referrer, such as "newsletter" or "homepage." |
| **Medium**            | Specify the marketing medium, such as "banner" or "email." |
| **Content**           | Specify the name or ID of the ad with the link. |
| **Term**              | Specify paid terms or other search terms for the ad. |

4. Click **Save**.
5. Type information in the following fields:
   • (Required) In **Fallback URL**, Specify the URL that users are directed to when a destination cannot be matched (for example, if the user is on a desktop or another platform that does not match a destination rule).
• In Marketing Link Options, select Interstitials or Universal and App Links.

For more information, see Interstitials or Universal Links and App Links.

• (Conditional) If Universal or App Links is selected, in Custom Path, users can define the URL path after the domain with any query parameter. For more information, see Universal Links and App Links.

6. Click Edit Deep Link Interstitial and configure the link.

(Conditional) If Universal or App Links is selected, in Custom Path, users can define the URL path after the domain with any query parameter. For more information, see Universal Links and App Links.

6. Click Edit Deep Link Interstitial and configure the link.

(Conditional) If Universal or App Links is selected, in Custom Path, users can define the URL path after the domain with any query parameter. For more information, see Universal Links and App Links.

7. Click Save and click Next.

8. In the Destination page, configure the link.

a) Click the Decision icon ( □ ) and select one of the following decision locations:

• Add Decision

• Add Path

b) If you selected Add Decision, select one of the following decision types:

• Operating Decision
  Supported operating systems include iOS, Android, AMX, and so on.

• Device Type
  Device types include devices such as desktops, eReaders, game consoles, mobile phones, set top boxes, and so on.

c) Click the Destination icon ( □ ) and select one of the following destination types:

• App Store
• Web Link
• App Deep Link
• Hybrid Link

Tip: When you use the Web Link destination type with a link to the app store, acquisition is not tracked. To track acquisitions, use the App Store destination type.

For more information, see Create New Link Destination.

9. To save the marketing link, click *** > Save.

Interstitials

You can route users to a destination depending on whether they have the app installed (an app deep link) or not installed (to a website or an app store).

The choice of routing is best left to users. Marketers can provide user choices by configuring an interstitial page that shows users the available landing destinations.

To configure an interstitial when creating a new marketing link:

1. Click Edit Deep Link Interstitial.
2. Type information in the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Custom HTML**   | Select your custom interstitial HTML page. Custom interstitials is the ability for marketers to customize interstitial landing pages with custom HTML/CSS/JS, which allows you to brand your pages. Here are the requirements for the HTML page:  
|                   | • Must be an HTML file.  
|                   | • Must contain the %%DEST%% and %%FALLBACK%% placeholders.  
|                   | • The uploaded HTML will be served in an <iframe>.  
|                   | You must ensure that your link targets are pointing to a parent window. You may include <base target="_parent" /> in <head> or specify a target property for each <a/> individually.  
|                   | **Tip:** If you upload custom HTML, the other four options in this table will not be used unless you remove the uploaded file. |
| **Image URL**     | Specify the URL to an image asset.                                          |
| **Body Text**     | Specify the body text for the interstitial.                                 |
| **Confirm Text**  | Specify the text for the text button.                                       |
3. **Optional** Click the icons above the image to see how the interstitial looks rotated and on different devices.
   You can change or edit the image outside Mobile Services to ensure that the image displays properly in different situations.

4. Click **Save**.

### Use Legacy Acquisition Links

This information helps you use the legacy acquisition link functionality.

💡 **Tip:** This feature requires SDK version 4.1 or later with acquisition enabled. For more information, see Configure Acquisition. You must also specify who has Mobile App Admin rights, because these rights enables access to acquisition links and in-app messages. For more information, see Roles and Permissions.

The Legacy Acquisition builder lets you create app store links that allow users to download applications directly from the Apple App Store and Google Play. The links you create enable you to attribute your success events to the downloads.

### Create an Acquisition Link

You can create app store links that let you download applications directly from the Apple App Store and Google Play. The links you create let you attribute your success events to the downloads.

1. Click **Acquisition > Manage Acquisition Links > Create New**.
2. Type the following information in the **Link Information** section:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>(Required) Specify a descriptive name for the app link.</td>
</tr>
<tr>
<td>Tracking Code</td>
<td>Specify the desired tracking code or click <strong>Generate</strong> to create a new tracking code.</td>
</tr>
<tr>
<td>Source</td>
<td>(Required) Specify the original referrer, such as &quot;newsletter&quot; or &quot;homepage.&quot;</td>
</tr>
<tr>
<td>Medium</td>
<td>Specify the marketing medium, such as &quot;banner&quot; or &quot;email.&quot;</td>
</tr>
<tr>
<td>Content</td>
<td>Specify the name or ID of the ad with the link.</td>
</tr>
<tr>
<td>Term</td>
<td>Specify paid terms or other search terms for the ad.</td>
</tr>
</tbody>
</table>

⚠️ **Important:** The values in the above fields cannot be changed after the acquisition link is created.
3. Type information in the fields in the **Add App Store Link** section.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
</table>
| App Store                     | Select the desired app store:  
• Apple App Store
• Google Play  
The options for each app store vary, as described below. |
| Browser Region (Apple App Store only) | Specify a specific regional app store for desktop browsers. This setting lets you define the region-specific app store that you want an acquisition link to direct to when a user clicks the link from a desktop browser. 
Mobile devices auto-redirect based on device settings. |
| Browser Language (Google Play only) | Select a language from the drop-down list. This setting lets you define a specific language to display in the Google Play Store for desktop browsers. 
Mobile devices show language based on device settings. |
| Search by Name                | For the Apple App Store, if you do not already know the **App ID**, you can search for the app by its name. You can limit your search by selecting an optional region from the **In Region** drop-down list. 
For Google Play, if you do not already know the **Package Name**, you can search for the app name by its name. |
| App ID (Apple App Store only) | If you searched for the app, this field is completed automatically. You can type the **App ID** value directly, rather than searching for the app. |
| Package Name (Google Play only) | If you searched for the app, this field is completed automatically. You can type the **Package Name** value directly, rather than searching for the app. |

4. To save your configuration and to generate the link, click **Add > Save**.  
The newly created link displays in the **App Store Links** section.
5. Click to copy the tracked link to your clipboard.

You can now paste the link into your social media posts, ads, email messages, and so forth.

Manage Acquisition Links

After acquisition links are created, these links can be deleted, imported, or exported.

Delete Acquisition Links

You can delete one or more acquisition links when they are no longer needed.

1. Click Acquisition > Manage Acquisition Links.
2. Complete one of the following tasks:
   • Select the check box next to one or more acquisition links.
   • Select the check box in the header to select all of your acquisition links.
3. Click Delete Selected and confirm the deletion.

   Tip: The Delete Selection option does not display until you select one or more acquisition links.

Import or Export Acquisition Links

Import or export acquisition links if you would rather work with the links using a .csv file instead of using the Adobe Mobile Services user interface.

1. Click Acquisition > Manage Acquisition Links.
2. Click Import and complete one of the following tasks:
   • Browse to and select the desired file to upload into Mobile Services.
   • Click Export and open or save the file.

Manage Marketing Links

You can use the Marketing Links page to create, use, and archive marketing links.

Prerequisite: To create and use marketing links, you must first create link destinations. For more information, see Create or Edit Marketing Links.
On the Marketing Links page, you can complete the following tasks:

**Display marketing links**

To display the list of marketing links, in the Mobile Services home page, click Acquisition > Marketing Links Builder.

The Clicks column displays the number of users who have clicked on the marketing link. The First Launches column displays the number of first launches for the app. This value reflects the number of users who chose to install the app and launch it after clicking on the marketing link.

**Archive or Unarchive marketing links**

- To archive a marketing link, select the check box next to a link and click Archive Selected.
- To unarchive a marketing link, click View Archive, select at least one link and click Unarchive Selected. Only previously archived marketing links will display in the View Archive page.

**Create Acquisition Link Manually**

You can create marketing links to acquire new mobile app users on-the-fly by manually configuring the URL parameters.

**Important:** This feature requires SDK version 4.6 or later. For more information, see Acquisition Prerequisites.

The following diagram illustrates the components of a manually built tracking link and displays the different URL parameters that you must configure properly when manually creating acquisition links.

![Tracking Link Components Diagram](image)

This link is configured to perform a platform-specific redirect to the Google Play store or the Apple App Store for a mobile app. If the destination cannot be determined, the default store has been set to the Apple App Store. After the app has been installed, the my.custom.key:test custom context key is attached to the Analytics Install Hit.

To manually create links, use the following URL format:

```
http(s)://c00.adobe.com/v3/ {mobile-services-app-hash}/start? {parameters}
```

For iOS, ensure that you use the correct protocol:

- **Tip:** The version of Android SDK you are using has no impact on this process.

- Use HTTP if you are using the iOS SDK older than version 4.7.0, or if you are using iOS SDK 4.7.0 or later and Use HTTPS is not selected on the Manage App Settings page.
- Use HTTPS if you are using iOS SDK 4.7.0 or later and Use HTTPS is selected on the Manage App Settings page

Where the following conditions have been met:

- `{mobile-services-app-hash}` matches the application identifier in the configuration file `{acquisition:appid}`.
- You can locate `{mobile-services-app-has}` in the Manage App Settings page under Acquisition SDK Options in the Tracking ID field.
• `{parameters}` is a list of standard specifically named URL query parameters

Here is the list of parameters:

<table>
<thead>
<tr>
<th>URL Parameter</th>
<th>Description</th>
<th>Example Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>a_g_id</td>
<td>Google Play Store App Identifier</td>
<td>com.adobe.beardcons</td>
</tr>
<tr>
<td>a_g_lo</td>
<td>Google Play Store Locale Override</td>
<td>ko</td>
</tr>
<tr>
<td>a_i_id</td>
<td>iTunes App Identifier</td>
<td>835196493</td>
</tr>
<tr>
<td>a_i_lo</td>
<td>iTunes Locale Override</td>
<td>jp</td>
</tr>
<tr>
<td>a_dd</td>
<td>Default Store for Auto Redirect</td>
<td>i</td>
</tr>
<tr>
<td>a_cid</td>
<td>Custom ID Override (generally IDFA for iOS or ADID for Android)</td>
<td>Any String &lt; 255 characters (UTF-8 encoded)</td>
</tr>
<tr>
<td>ctx*</td>
<td>Keys prefixed with ctx will end up in Context Data of the resulting launch hit</td>
<td>ctxmy.custom.key=myValue</td>
</tr>
<tr>
<td>ctxa.referrer.campaign.name</td>
<td>Acquisition Campaign Name</td>
<td>2015 Summit Conference</td>
</tr>
<tr>
<td></td>
<td>This parameter is required for reporting if you want to compare the performance of different acquisition links.</td>
<td></td>
</tr>
<tr>
<td>ctxa.referrer.campaign.trackingcode</td>
<td>Tracking Code</td>
<td>lexsxouj</td>
</tr>
<tr>
<td></td>
<td>This parameter is required for reporting if you want to compare the performance of different acquisition links.</td>
<td></td>
</tr>
<tr>
<td>ctxa.referrer.campaign.source</td>
<td>Source</td>
<td>Ad Network</td>
</tr>
<tr>
<td>ctxa.referrer.campaign.medium</td>
<td>Medium</td>
<td>Email</td>
</tr>
<tr>
<td>ctxa.referrer.campaign.content</td>
<td>Content</td>
<td>Image # 325689</td>
</tr>
</tbody>
</table>
Remember the following information when you manually create acquisition links:

- All parameters that do not match parameters in the table are passed on as part of the app store redirect.
- All parameters are technically optional, although the link will be nonfunctional if at least one store ID is specified.

  An example of a store ID is `a_g_id/a_i_id`.

- If the destination store cannot be automatically determined, and no default is provided, an 404 error is returned.

<table>
<thead>
<tr>
<th>URL Parameter</th>
<th>Description</th>
<th>Example Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ctxa.referrer.campaign.term</td>
<td>Term</td>
<td>hiking+boots</td>
</tr>
</tbody>
</table>
Location

You can define geographical locations that you can use for correlation purposes in reports, target with in-app messages, and more.

Overview (Location)

The Location Overview report lets you see the different countries, regions, and Points of Interest where your app is being used. This report provides a sunburst visualization for your existing data, and you can use the report to discover audience segments (collections of visitors) for targeting. Creating and managing audiences is similar to creating and using segments, except that you can make the audiences available in the Experience Cloud.

This section contains the following information:

- Navigation and Usage
- Add Breakdowns and Metrics
- Create a Sticky Filter
- Share Reports

Navigation and Usage

This visualization provides, for example, the base report with breakdowns. The visualization uses height to show the metric in focus, and the performance differences between the metrics. Each ring represents an audience segment in the ring’s category. You can take actions on an audience, such as applying a Sticky Filter, hiding a metric, and viewing metrics.

Tip: In addition to this information, you can view an in-product tutorial that describes how to interact with the sunburst chart. To launch the tutorial, click Location Breakdown in the title bar of the report and click the i icon.
This sunburst chart is interactive. You can change the time period by clicking the Calendar icon in the top right side. Mouse over any part of the chart to display more information. For example, in the following illustration, you can see the total number and the percentage of users using your app in the United States.
In this illustration, the **Categories** buttons in the upper right corner allow you to toggle between viewing information about the top ten countries, regions, and the top three **Points of Interest**.

Here is the visualization when you select **Country**:

Here is the visualization when you select **Points of Interest**:
You can click a slice in the ring to select the audience on which you can perform actions, such as zooming in, hiding audiences, creating an in-app message, or a Sticky Filter.

You can click a secondary metric on the right side to add it to the visualization and display this metric by using color, height, or both.
Add Breakdowns and Metrics

You can add breakdowns and secondary metrics, which change the height of each audience relative to the other audiences in the chart.

💡 Tip: The more rings you add to the sunburst, the longer it takes to process.

To add breakdowns and secondary metrics, click Location Breakdown in the title bar of the report and click Customize to open the right rail.
When you click Add Breakdown or Add Metric, a new item displays with the same name as the previous item in the respective list. Click the newly created breakdown or metric to access a drop-down list from which you can select a new item.

Create a Sticky Filter
Click a slice in the ring to select the audience for which you want to create a sticky filter and click Sticky Filter. This sticky filter lets you apply the current filters and run a new report based on the filters.

Share Reports
After you create a report, your settings are used to create a custom URL, which you can copy and share.

Map
You can view an interactive map that displays your Points of Interest and other data markers.
Here is some important information about the map:

- You can enlarge or shrink the map.

  This feature is useful, for example, if you have two points of interest that are close together. Enlarging the map lets you view it in greater detail.

- Your points of interest display in blue.

  Other data markers, such as Launches, display in black. Click a marker to view more information.

Click 📦 to select the following options:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map</td>
<td>Display a simple map.</td>
</tr>
<tr>
<td>Satellite</td>
<td>Display the map in satellite mode.</td>
</tr>
<tr>
<td>Data Markers</td>
<td>Choose whether to display black data markers.</td>
</tr>
<tr>
<td>Heat Map</td>
<td>Choose whether to display heat-map markers. The greater the intensity of the color, the more frequently the condition (Launches, for example) is met.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Points of Interest</td>
<td>Choose whether to display your points of interest.</td>
</tr>
</tbody>
</table>

You can configure the following options for this report:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Period</td>
<td>Click the Calendar icon to select a custom period or to select a preset time period from the drop-down list.</td>
</tr>
<tr>
<td>Customize</td>
<td>Customize your reports by changing the Show By options, adding metrics and filters, and adding additional series (metrics), and more For more information, see Customize Reports</td>
</tr>
<tr>
<td>Filter</td>
<td>Click Filter to create a filter that spans different reports to see how a segment is performing across all mobile reports. A sticky filter allows you to define a filter that is applied to all non-pathing reports. For more information, see Add Sticky Filter.</td>
</tr>
<tr>
<td>Download</td>
<td>Click PDF or CSV to download or open documents and share with users who do not have access to Mobile Services or to use it in presentations.</td>
</tr>
</tbody>
</table>

**Manage Points of Interest**

You can create and manage points of interest, which allow you to define geographical locations that you can use for correlation purposes, target with in-app messages, and so on. When a hit is sent in a point of interest, the point of interest is attached to the hit.

To use Location features, you must do the following:

- You must have Analytics—Mobile Apps or Analytics Premium.
- You must enable Location Reports for the app.
- If you are using a version of the iOS SDK or Android SDK before 4.2, after adding new Points of Interest, you must download a new configuration file and give it to your app developers.

If you are using the iOS SDK or Android SDK versions 4.2 or later, you do not need to submit an app update to the store to update your Points of Interest. On the Manage Points of Interest page, clicking Save packages changes to the Points of Interest list and updates the configuration file for the live app. Saving also updates the list of points in your app on the user devices, as long as the app uses the updated SDK and configuration with a remote points-of-interest URL.

On the user's device, for a hit to be assigned to a Points of Interest, location must be enabled for the app.

1. Click the name of the app to go to its Manage App Settings page.
2. Click Location > Manage Points of Interest.
Type information into each of the fields:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Point Name</strong></td>
<td>Type the <strong>Point of Location</strong> name. This could be the name of a city, county, or region. You can also create a <strong>Point of Location</strong> around specific locations, such as sports stadiums or businesses.</td>
</tr>
<tr>
<td><strong>Latitude</strong></td>
<td>Type the latitude of the <strong>Point of Location</strong>. You can find this information from other sources, including the Internet.</td>
</tr>
<tr>
<td><strong>Longitude</strong></td>
<td>Type the longitude of the <strong>Point of Location</strong>. You can find this information from other sources, including the Internet.</td>
</tr>
<tr>
<td><strong>Radius (Meters)</strong></td>
<td>Type the radius (in meters) around the <strong>Point of Location</strong> that you want to include.</td>
</tr>
</tbody>
</table>
3. Add additional points of interest, as needed.

   We recommend that you add no more than 5,000 points of interest. If you add more than 5,000, you can save the points, but you will receive a warning message informing you that best practices dictate having fewer than 5,000 points.

4. Click Save.

To delete one or more point of interest, select the desired check boxes, and click Remove Selected.

Click Import or Export to work with the data by using a .csv file instead of using the Adobe Mobile user interface.
Messaging

Create, manage, and report on in-app and push messages.

This section contains the following information:

- **In-App Messages**
- **Push Messages**
- **SDK Documentation**

**In-App Messages**

In-app messages are delivered to users in real-time, based on their actions and traits. The messages are triggered from Analytics data already tracked by the SDK.

The following message types are supported:

- Custom and themed
- Full screen
- Native alerts
- Local notifications

Here is how in-app messaging works:

- Requires SDK v4.2 or later.
- You must specify who has Mobile App Admin rights, which enables access to acquisition links and in-app messages.
  
  For more information, see *Roles and Permissions*.

- After a message is approved, the message is published automatically to the application.
- The SDK presents the message to users when the message parameters, such as traits, trigger, and schedule, are met.
- Messages can contain custom HTML or an image, using an online URL.
  
  A backup or alternative image from the app bundle can also be specified for messages that are triggered while offline.

- Active and completed messages will provide reports on total views, click-through rates, and so on.
- Templates are available for custom messages, which allows you to easily build your own in-app message.

**Push Messages**

Push messages are sent to users who have opted in to receive notifications. You can target these push messages to users in Analytics segments or custom segments. You can use push messages to re-engage passive users or to convey time-specific and location-specific information because the messages appear outside your app.

Before you can configure Push Messaging, see *Prerequisites to Enable Push Messaging*. After you perform these tasks, you must configure push messaging in your app’s settings. For more information, see *Configure Push Messaging*.

**SDK Documentation**

- For more information about the iOS SDK, see *iOS*.
- For more information about the Android SDK, see *Android*.

**Manage Messages**

View a list of your in-app and push messages with details about when each message was last updated and whether the messages are live or deactivated.
You can duplicate, activate/deactivate, and archive/unarchive messages. You can also view a report that displays the number of users who have viewed the message and the number of users who have clicked through the message.

To manage messages, click `<app name> > Messaging > Manage Messages`.

Here is additional information about the tasks you can complete on messages:

- **Search and Filter Messages**
- **Duplicate Messages**
- **Deactivate or Activate Messages**
- **Archive Messages**
- **View Archived Messages**

**Search and Filter Messages**

Use the Search box at the top of the list to search for and filter messages. Anything you type in the search box displays matching messages from the list. The search works across all table columns. For example, you can type Draft to display only messages with that status. You can also type a user's name to display only messages updated by that user.

In addition to the Search box, you can also click any column header to sort the list in ascending or descending order by the contents of that column.

For example, if you sort the **Message Type** column in ascending order, all of your in-app messages display before your push messages. If you sort the **Last Updated** column in descending order, the list displays your most recently updated messages at the top of the list.
Duplicate Messages

1. Select the check box next to one or more messages and click **Duplicate Selected**.
2. Select the app for which you want to make a duplicate message.
3. Type a name for the message.
   To duplicate a message for the same app, type a new name for the message. If you keep the same name to overwrite the original message. If you are duplicating a message for a different app, you can keep the same name without overwriting the original message.
4. Click **Duplicate** or **Overwrite**, as necessary.

Deactivate or Activate Messages

To deactivate a message, select the checkbox next to at least one active message and click **Deactivate Selected**.

To activate a deactivated message, select the checkbox next to at least one deactivated message and click **Activate Selected**.

Archive Messages

You can archive messages and clean up your message list.

💡 **Prerequisite:** Before you can archive a message, you must deactivate it.

1. Select the checkbox next to at least one deactivated messages and click **Archive Selected**.

View Archived Messages

1. Click **View Archive**.
2. Select the checkbox next to at least one archived message and click **Unarchive Selected**.

View Message Reports

You can view message reports for in-app and push messages.

1. Click 📊 in the **Report** column for a message.
2. (Optional) Create a **Sticky Filter** for the report or change the time period by clicking the **Calendar** icon.

💡 **Tip:** Depending on the type of message you are viewing, the report might vary

In-App Messages

If you are viewing reports for an in-app message, the report looks similar to the following illustration:
Available Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impression</td>
<td>When a message is triggered.</td>
</tr>
<tr>
<td>Click through</td>
<td>When a user presses the <strong>Click Through</strong> button on an alert or full-screen message, and when a user opens the app from a local notification.</td>
</tr>
<tr>
<td>Cancel</td>
<td>When a user presses the <strong>Cancel</strong> button on an alert or a full-screen message.</td>
</tr>
<tr>
<td>Engagement Rate</td>
<td>This is a calculated metric from Adobe Analytics and is the result of the number of click throughs divided by the number of impressions.</td>
</tr>
</tbody>
</table>

Push Messages

If you are viewing reports for a push message, the report looks similar to the following illustration:
The chart at the top displays the number of users who opened the message.

**Available Metrics**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>The time the message was pushed to devices from Mobile Services.</td>
</tr>
<tr>
<td>Status</td>
<td>The status of the message.</td>
</tr>
<tr>
<td>Published</td>
<td>The number of device tokens that are successfully sent to Apple Push Notification Service/Google Cloud Messaging (APNS/GCM) to send the message to the users devices.</td>
</tr>
<tr>
<td>Failed</td>
<td>Here are some of the reasons that the number of device tokens that were not successfully sent to APNS/GCM:</td>
</tr>
<tr>
<td></td>
<td>• An invalid pushID</td>
</tr>
</tbody>
</table>
Create a push message

You can send push messages to Analytics segments from the Mobile Services UI to leverage your robust Analytics data while engaging with users.

⚠️ **Prerequisite:** Before you create a push message, see Prerequisites to Enable Push Messaging.

Push messages appear to users who opted in to receive notifications when they are not actively using your app. These notifications alert users about new updates, offers, and reminders. With this capability, you can create, test, manage, and report on push messages in one streamlined workflow.

Push messages are sent server-side by the app stores rather than from Adobe Mobile Services:
To create a push message:

1. Click `<app name> > Messaging > Manage Messages > Create Message > Create Push.`
2. Configure the *audience options*.

**Audience: Define and Configure Audience Segments for Push Messages**

You can define and configure audience options for push messages, including date range options, Analytics segments, and custom segments.

**Define Audience Segments**

When an audience segment for push messaging is created, the segment might involve users from one or more apps because report suites or virtual report suites might contain data from one or more apps. For more information about virtual report suites, see [*Virtual Report Suites*](#).

In Adobe Mobile Services, marketers might only push to one app per platform. If marketers attempt to push to segments that contain users from multiple apps, a warning is displayed that states that proceeding can result in serious push failures and the potential blacklisting of users. If you experience a push failure, see *Resolving push failures* in [*Troubleshooting Push Messaging*](#).

To use Audience Manager data in your segment definition, see [*Audience Analytics*](#).

⚠️ **Important:** If app users are blacklisted, marketers can never send push messages to those affected users again.

If you choose an audience segment that contains users across multiple apps, you might see the following alert:
The app name is based on the pared down version of the appID, which is automatically sent to Adobe Analytics by the Mobile Services SDK in the `<app name> <version number> (<bundle id>)` format.

**Tip:** The version number is optional.

Up to 6 sets of numbers for the version and 5 sets of numbers for the bundle ID are removed.

For example:
- `Bea[r]d[CONS] 1.0 (123)` will appear as `Bea[r]d[CONS]`
- `Bea[r]d[CONS] 1.2 (1.2)` will appear as `Bea[r]d[CONS]`
- `Bea[r]d[CONS] 1.2.3.4.5.6.7 (1111)` will appear as `Bea[r]d[CONS] .7`
- `Bea[r]d[CONS] 1.2.3. (1.2.3.4.5.6)` will appear as `Bea[r]d[CONS] (.6)`

To continue to send the push message to the listed apps, select the **Yes, I want to proceed.** check box and click **Send.**

**Best Practices**

Here are some practices to remember:
- To reduce confusion, **avoid** defining mobile app virtual report suites that contain data from multiple apps.
- Use a unique app ID as part of an audience segment **each** time you want to send a push message.

  This ensures that push notifications are sent to an audience segment that belongs to **only** one app.

**Examples**

Here are some examples to help you understand how to correctly define segments:

**Do:** The Marketer provides push certificates for the iOS and Android versions of one app, for example, for Adobe Photoshop. The Marketer might send a push notification to a user segment that spans across both platforms.
Do not: Marketers provide push certificates for iOS and Android versions of one app, for example, for Adobe Photoshop. If the marketer creates and pushes to a segment of all active users in the last 30 days, only the users of the Adobe Photoshop iOS and Android app receive the push, and all of the Adobe Illustrator iOS and Android app users will be blacklisted. For more detailed example see Resolving push message failures in Troubleshooting Push Messaging.

Configure Audience Segments

1. Go to the Audience page for a new push message.

   **Important:** As you configure the audience options, remember the following information:

   - The **Estimated Opt-In Audience** is the number of devices that match the Adobe Analytics segment and the number of opted-in devices.
     
     You can view an estimate of the number of users in your selected segment(s) that have opted in to receive messages and will receive the push message. The total number of app users displays below the estimate, regardless of opt-in status.
     
   - The **Total** is the number of devices that match the Adobe Analytics segment.
     
   - Push messages will be sent to the devices that are part of a defined Adobe Analytics segment and that have opted-in for push messages.
     
     This means that the SDK has sent a value of True for the Push Message Opt-In evar.
     
   - Even though the device has a valid device token, unless Adobe Analytics has set the opted-in flag, the message will not get pushed to the device.
     
   - For more information about troubleshooting push messaging, see the following:
     
     - iOS: Push Messaging
     - Android: Push Messaging

2. Type information in the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>During The</strong></td>
<td>Type the time frame to use for the estimated audience.</td>
</tr>
<tr>
<td></td>
<td>From the <strong>During The</strong> drop-down list, select an option:</td>
</tr>
<tr>
<td></td>
<td>• <strong>Last</strong> lets you select a relative time frame (for example, the last 7 days, last 30 days, or last 60 days) from the time the message is scheduled to push.</td>
</tr>
<tr>
<td></td>
<td>As an example, if you select the last 30 days and schedule the message to push on October 31, the estimated audience would be the number of users who have opted-in to receive push messages the 30 days before October 31.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Static Range</strong> lets you select a static range by picking the beginning and end dates for the estimated audience range.</td>
</tr>
<tr>
<td></td>
<td>Using the previous example, if you select a date range beginning October 1 and ending October 15 but schedule the message to push on October 31, the estimated audience would be the number of users who have opted-in to receive push messages in the static date range that you specified (October 1 to October 15).</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Analytics Segments</td>
<td>Select one or more existing Adobe Analytics segment from the drop-down list. For more information, see <em>Building Segments</em>.</td>
</tr>
<tr>
<td>Custom Segments</td>
<td>Select a metric or variable from the drop-down list (for example, <em>Days Since Last Use</em> or <em>Point of Interest</em>) and configure the filter as desired. For example, the following custom segment targets users who have a mobile phone running iOS and are in the California (United States) region.</td>
</tr>
</tbody>
</table>

**Important:** In the *Create Audience* section, if you click *And*, a dialog box appears that reminds you to ensure that each app that is listed must have a valid certificate. If you clicked *Or*, the default dialog box appears. For more information about valid certificates and report suites, see *Virtual Report Suites*.

**Experience: Push Message**

You can configure experience options for push messages and rich push messages, including name, message text, and destination options. You can also configure advanced options, including payload options and custom options for iOS devices.

1. On the *Audience* page for a *new push message*, click *Experience*. 

2. Type a name for this message.

3. Type information in the following fields in the **Message** section:

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td>Specify the text of your message. You can specify up to a maximum of 140 characters.</td>
</tr>
<tr>
<td><strong>Media URL</strong></td>
<td>Type the URL of the media file that you plan to use in the push notification message. For requirements to use rich push notifications, see <em>Table 1.</em></td>
</tr>
</tbody>
</table>

⚠️ **Important:**

To display an image or a video in a push notification, remember the following:

- The attachment-url data is handled in the push payload.
- The media URL must be able to handle spikes requests.
For more information about preparing your app to receive rich push notifications, see the following:

- Receive Rich Push Notifications (Android)
- Receive Rich Push Notifications (iOS)

**Destination**

Select a specific destination, such as a web, deep, or hybrid link, to send users when they click-through the message.

For more information, see Destinations.

**Tip:** When you use the Web Link or Custom Link destination types, the destination type is not tracked. Only Deep Links are tracked.

<table>
<thead>
<tr>
<th>Table 1: Requirements for Rich Push Notifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirement</td>
</tr>
</tbody>
</table>
| Supported Versions | • Android 4.1.0 or later  
• iOS 10 or later  

**Important:** Remember the following information:

- Rich push messages sent to earlier versions will still be sent but only text will be displayed.
- There is no watch support at this time.

<table>
<thead>
<tr>
<th>File Formats</th>
<th>Here are the supported file formats:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Images: JPG and PNG</td>
</tr>
<tr>
<td></td>
<td>• Animations (iOS only): GIF</td>
</tr>
<tr>
<td></td>
<td>• Videos (iOS only): MP4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>URL Format</th>
<th>HTTPS only</th>
</tr>
</thead>
</table>

| Sizing | Images must be in a 2:1 format or they will be cropped. |

For more information about configuring rich push notifications, see the following content:

- Receive Rich Push Notifications (Android)
- Receive Rich Push Notifications (iOS)

4. (Optional) Click the Show Advanced Options link to configure additional options:
Description

Payload: Data
Provide a custom push payload in JSON that will be sent to the app through a push or a local notification.
The limit for Android and iOS is 4KB.

Apple Options: Category
Provide a category for push and local notifications.
For more information, see Managing Your App’s Notification Support in the iOS Developer Library.

Apple Options: Sound
Provide the name of the sound file in your app bundle to play. A default alert sound plays if not set.
For more information, see Managing Your App’s Notification Support in the iOS Developer Library.

Apple Options: Content Available
Select this option so that when the message arrives, iOS wakes up your app in the background and allows your app to execute code based on the message payload.
For more information, see Apple Push Notification Service in the iOS Developer Library.

5. (Optional) Preview the layout of your message by clicking following icons:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="x" /> Summary</td>
<td>Hide the preview pane. Click <img src="image" alt="x" /> to redisplay the preview pane.</td>
</tr>
<tr>
<td><img src="image" alt="device_orientation" /></td>
<td>Click to change the orientation of the preview from portrait to landscape mode. For watches, the orientation changes from a round watch face to a square watch face.</td>
</tr>
<tr>
<td><img src="image" alt="watch" /></td>
<td>Click to preview your message as it will appear on users’s watches.</td>
</tr>
<tr>
<td><img src="image" alt="mobile" /></td>
<td>Click to preview your message as it will appear on users’s mobile phones.</td>
</tr>
<tr>
<td><img src="image" alt="tablet" /></td>
<td>Click to preview your message as it will appear on users’s tablets.</td>
</tr>
</tbody>
</table>

At the bottom of the preview pane, you can view a description of the audience that you selected in the previous step.

6. (Optional) Click Test to push your message to specified devices for testing purposes.

7. Select the service and type the push tokens for at least one device to which you want to push the message.
   Specify the tokens in a comma-separated list to push the message to more than one device.

8. Configure Schedule options.
Schedule: Push Message

In the Adobe Mobile Services UI, you can schedule a push message to be delivered immediately, to be delivered later, and as a recurring event. These events can be scheduled on a daily, weekly, or monthly basis.

Tip: Users can modify the scheduling settings for a push message job at any time. If there is no applicable date to send a recurring scheduled message, for example, a monthly recurring job every 31st day, on February 31st, or the 5th Tuesday of the month, no message is sent.

Remember the following information:

- The correct date and time format is \texttt{hh:mm} and \texttt{mm/dd/yyyy}.
- You can edit a scheduled message in the following ways:
  - Can change the date to a later date.
  - Change the repeat interval to another interval.

For example, if you originally had a message that was sent every day, you can switch the recurrence to weekly.

Important:

You must understand the following information before scheduling recurring push messages:

- The options that are displayed in the \texttt{Repeat} drop-down list depend on the date you typed or selected.

For example, if you typed \texttt{Saturday, October 7}, the following options are displayed:

- \texttt{Never}
- \texttt{Every day}
- \texttt{Every Saturday}
- \texttt{Day 7 of Every Month}
- \texttt{1st Saturday of Every Month}

- Push messages are scheduled and sent based on Greenwich Mean Time (GMT).

For example, if you scheduled a recurring message to be sent every Saturday at 12:00 pm (noon) PST, starting on October 7, the message will actually be sent on Saturday at 7 pm GMT.

- Messages are sent differently depending on whether you are located in the U.S., Europe, or Asia.

For example, if you are located in San Jose, California, and you schedule a message to be sent on \texttt{October 31} at 5:30 pm PST, the message is actually sent on \texttt{November 1} at 12:30 am GMT. If you are located in Tokyo, and you schedule a message to be sent on \texttt{January 1} at 5:30 am, it will be sent on \texttt{December 31} at 8:30 pm GMT.

- Push messages are sent an hour earlier or later depending on when day light savings occurs.

- When you look at your push messages report, the message is displayed in the local time zone of your system.

For example, if your start time is 12:00 pm PST, although the message will be sent at 7pm GMT, the message report will display the time sent as 12:00 pm PST.

Schedule a Recurring Push Message

1. On the Schedule page for a \texttt{new push message}, click \texttt{Scheduled} or \texttt{Now}.
If you select **Now**, the message is pushed immediately. To prevent the message from being scheduled immediately, click **Save as Draft**.

2. If you selected **Scheduled**, click the calendar icon and select or type a start date.

3. Type a time.

4. Under **Repeat**, select one of the following options:
   - Never
   - Every day
   - Every Tuesday
   - `<Day x>` of the month
     
     The displayed options change depending on the day you selected or typed as the start day.
   - `<nth day>` of Every Month
     
     The displayed value changes depending on which date you selected or typed as the start date.
5. In **End Repeat**, type an end date and time.

6. Click one of the following options:
   - **Save as Draft**
     This option saves the message in a draft format. You can choose this option to save an unfinished message or to save the message so that someone else can edit and approve the message before activating it. If you selected **Now** in the previous step, the draft message is sent immediately upon activation. If you selected a date and time to push the message, the message is pushed according to schedule.
   - **Save & Schedule**
     This option sends the message on the scheduled day and time.

To push the draft message later, complete one of the following tasks:
- Click **Manage Messages**, select the check box next to the message, then click **Activate Selected**.
- Click **Save & Send** to save the message and send it.

If you selected **Now** in the previous step, the message is immediately pushed. If you selected a date and time to push the message, the message is pushed according to schedule.

**Troubleshooting Push Messaging**

This information can help you troubleshoot push messaging.

<table>
<thead>
<tr>
<th>Situation or issue</th>
<th>Description</th>
</tr>
</thead>
</table>
| Why are there sometimes delays sending push messages? | The following types of delays might be associated with push messages for Mobile Services:

  - **Waiting for Analytics Hits**
    Every report suite has a setting to determine when to process incoming Analytics hits. The default is every 1 hour.

    The actual processing of Analytics hits might take up to 30 minutes, but is typically 15-20 minutes. For example, a report suite processes hits every hour. When you factor the required processing time of 30 minutes max, it can take up to 90 minutes for an incoming hit to be available for a push message. If a user launched the app at 9:01 AM, the hit would appear in the Mobile Services UI as a new unique user between 10:15 to 10:30 AM.

  - **Waiting for the Push Service**
    The Push Service (APNS or GCM) might not immediately send out the message. Although uncommon, there have been occurrences of wait times up to 5-10 minutes.

    You can verify that the push message has been sent to the Push Service by looking in the **Report** view of the Push Message, finding the message in the **Message History** table, and looking at the **Published** count.

    🧩 **Tip:** This count is the number of successful sends to the Push Service(s).
<table>
<thead>
<tr>
<th>Situation or issue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Push Services do not guarantee that a message will be sent. For more information about the reliability of service, see the following content: &lt;br&gt;• APNS: <em>Quality of Service</em>. &lt;br&gt;• GCM: <em>Lifetime of a Message</em>.</td>
<td></td>
</tr>
<tr>
<td>Why is my Android GCM API key invalid?</td>
<td><strong>Invalid API key</strong>&lt;br&gt;Your API key might be invalid for the following reasons:&lt;br&gt;• The API key that you provided is not a server key with the correct GCM API key value.&lt;br&gt;• The server key has whitelisted the IPs and is blocking Adobe’s servers from sending a push message. <strong>Determine the validity of the API key</strong>&lt;br&gt;To determine the validity of your API key, run the following command:&lt;br&gt;&lt;br&gt;<strong>Android</strong>&lt;br&gt;&lt;br&gt;<code>&lt;br&gt;# api_key=YOUR_API_KEY&lt;br&gt;# curl --header &quot;Authorization: key=$api_key&quot; &lt;br&gt; --header Content-Type:&quot;application/json&quot; &lt;br&gt; https://gcm-http.googleapis.com/gcm/send &lt;br&gt; -d &quot;{&quot;registration_ids&quot;:[&quot;ABC&quot;]}&quot;&lt;br&gt;</code>&lt;br&gt;A returned 401 HTTP status code means that your API key is invalid. Otherwise, you will see something similar to this:&lt;br&gt;&lt;br&gt;<code>&lt;br&gt;&quot;multicast_id&quot;:6782339717028231855,&quot;success&quot;:0,&quot;failure&quot;:1,&quot;canonical_ids&quot;:0,&quot;results&quot;:null&quot;&lt;br&gt;</code>&lt;br&gt;You can also check the validity of a registration token by replacing &quot;ABC&quot; with the token.</td>
</tr>
<tr>
<td>Why is my APNS cert not working?</td>
<td><strong>Invalid Certificate</strong>&lt;br&gt;Your APNS certificate might be invalid for the following reasons:&lt;br&gt;• You might be using a sandbox certificate instead of the production certificate.&lt;br&gt;• You are using a new production/sandbox certificate that is not supported.&lt;br&gt;• You are using .p8 file instead of a .p12 file.</td>
</tr>
<tr>
<td>Resolving push message failures</td>
<td><strong>An Example</strong>&lt;br&gt;The following example illustrates how you can resolve a push failure when using a VRS.&lt;br&gt;The following customer has two iOS apps:&lt;br&gt;• App Name: PhotoShop_app_iOS&lt;br&gt;• Parent RSID: AllAdobe PhotoShop_apps&lt;br&gt;• VRSID: PhotoShop_iOS_app_SF&lt;br&gt;• VRSID Definition Segment: <code>a.appid</code> contains &quot;PhotoShop_iOS_app_SF&quot;</td>
</tr>
</tbody>
</table>
Create an in-app message

You can create an in-app message for delivery to mobile users. When creating the message, you configure the message type, audience, experience, and schedule.

Tip: To create in-app messages, customers must have Analytics—Mobile Apps or the Mobile App Add-on required for in-app messaging.

1. In your app, click **Messaging > Manage Messages > Create Message > Create In-App.**
2. Configure the **Audience options.**

### Audience: In-App Message

You can configure audience options for in-app messages, including view, trigger, and trait options.

1. In your app, click **Messaging > Manage Messages > Create Message > Create In-App.**
2. On the **Audience** page, type information in the following fields:
### Field | Description
--- | ---
**View** | Select the option that triggers a message to display:
  - **Always**
    - This option means that the message is displayed each time the trigger occurs.
  - **Once**
    - This option means that the message is displayed only the first time the trigger occurs.
  - **Until Click-Through**
    - This option means that the message is displayed each time the trigger occurs until the user clicks through. This trigger applies only to full screen and alert messages.

Most messages need to redirect or use a resource from the internet and will not display if offline. To always show the message regardless of network connectivity, select the **Show Offline** check box.

**Trigger** | Select an option from the drop-down list and select a condition.
For example, you could select **Launched** from the first drop-down list and **Exists** from the second drop-down list.

You can also specify custom context data that needs to be in the triggering hit to display the message.

⚠️ **Important:** If you select multiple triggers, for the message to display, all triggers must occur on the same hit.

**Traits** | You can determine who should see the in-app message when it is triggered and filter (segment) the audience to hits that have specified data.

For example, you can define a rule in which Points of Interest contain Denver. This filter allows you to show the message to customers that are in one of your points of interest with Denver in the name, at the trigger time.

---

**Additional Information about Traits and Triggers**

⚠️ **Important:** Triggers and traits use data that is passed to Analytics from your app. These values are passed as context data, mapped variables, and metrics. A variable is a text-based value, and a metric is a numerical value.

To see the mapping of these key value pairs in the Mobile Services UI and validate the value for your trigger, click **Manage App Settings > Manage Variables & Metrics**, which displays the following tabs:

- **Standard Variables & Metrics**
- **Custom Variables**
- **Custom Metrics**

After you validate the mapping, select the appropriate matcher or logical operator to configure your audience for the message.
Selecting Metrics and Variables

The following scenarios help you determine whether you should select a metric or a variable as your trigger:

**Metrics**

A metric is a number, and an example is the number of purchases.

1. Click Manage Messages > Create Message.
2. Complete the following steps in the Trigger section on the Audience tab:
   1. Select a standard event such as Launched and select exists.
   2. Select a second trigger that is a custom data point and that is mapped to a metric.
   3. Under Number, select a matcher option.

**Variables**

A variable is a text string that is a unique identifier, and examples include country, airport, and so on.

1. Click Manage Messages > Create Message.
2. Complete the following steps in the Trigger section on the Audience tab:
   1. Select a standard event such as Launched and select exists.
   2. Select a second trigger that is a custom data point and that is mapped to a variable.
   3. Under Text, select a matcher option.

For more information about context data, variables, and metrics, see Managing your App.

**Experience: In-App Message**

Configure experience options for in-app messages, including type (full screen, alert, or notification) and display, text, and button options.

1. In your app, click Messaging > Manage Messages > Create Message > Create In-App.
2. On the Experience page, type a name for the message.
3. Complete the fields in the Type section:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Select the message type for your in-app message campaign:</td>
</tr>
<tr>
<td></td>
<td>● Full Screen</td>
</tr>
<tr>
<td></td>
<td>● Alert</td>
</tr>
</tbody>
</table>
4. Complete the fields in the **Display** section:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme</td>
<td>Select a theme for your message.</td>
</tr>
<tr>
<td>Layout</td>
<td>Select the app layout on the device screen.</td>
</tr>
<tr>
<td>Image URL</td>
<td>The URL for an image. If you have sizing issues when using the full-screen template, see My image does not fit exactly into the space provided by the template in Troubleshooting In-App Messaging.</td>
</tr>
<tr>
<td>Bundled Image</td>
<td>Path to an image in your app code bundle. This option is used when there is no image, or the image is unavailable. The imagine might not be available if, for example, the device is offline. If you have sizing issues when using the full-screen template, see My image does not fit exactly into the space provided by the template in Troubleshooting In-App Messaging.</td>
</tr>
</tbody>
</table>

5. Complete the fields in the **Text** section:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Header</td>
<td>Type the text for the message's header.</td>
</tr>
<tr>
<td>Content</td>
<td>Type the text for the message's content.</td>
</tr>
</tbody>
</table>

6. Complete the fields in the **Buttons** section:
### Field | Description
---|---
**Click-Through Button** | Label for the **Click-Through** button. Tapping this button will count as a successful click-through. The user will be redirected to the destination.

**Destination** | Select a specific destination, such as a web, deep, or hybrid link, to send users when they click-through the message.

The redirect URL for a successful click-through. This URL might contain the following information:

- **{userId}**, which is replaced with the user identifier or is blank when the user identifier is not set.
- **{trackingId}**, which is replaced with the aid (correlates with s_vi cookie).
- **{messageId}**, which is replaced with the unique ID for the in-app message.
- **{lifetimeValue}**, which is replaced with the lifetime value or 0 if no lifetime value exists.

Here is an example of tracking the user ID:

http://www.mysite.com?uid={userId}

If the click-through URL uses http:// or https://, the URL will open in the device browser outside the app. Otherwise, each platform supports schemes that allow you to open or reference your app if the app has been developed to support the custom scheme.

💡 **Tip**: When you use the **Web Link** or **Custom Link** destination types, the destination type is not tracked. Only **Deep Links** are tracked.

For more information, see [Destinations](#).

**Cancel Button** | Label for the **Cancel** button. Tapping this button closes the message.

7. (Optional) Preview the layout of your message by clicking following icons:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="x Summary" /></td>
<td>Hide the preview pane. Click to redisplay the preview pane.</td>
</tr>
</tbody>
</table>

| ![Switch Orientation](image) | Click to change the orientation of the preview from portrait to landscape mode. For watches, the orientation changes from a round watch face to a square watch face. |

| ![Watch Preview](image) | Click to preview your message as it will appear on users's watches. |

<p>| <img src="image" alt="Phone Preview" /> | Click to preview your message as it will appear on users's mobile phones. |</p>
<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Icon]</td>
<td>Click to preview your message as it will appear on users’s tablets.</td>
</tr>
</tbody>
</table>

You can also view a description of the audience you selected in the previous step at the bottom of the preview pane.

8. Configure *Schedule options*.

**Schedule: In-App Message**

You can configure schedule options for in-app messages, including duration, days of the week, and time of the day options.

💡 *Tip:* Date ranges are defined by your time zone. Specific days and time ranges are relative to the user’s device.

1. In your app, click **Messaging > Manage Messages > Create Message > Create In-App**.
2. Click **Schedule**.
3. Complete the following fields in the **Duration** section:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every Day</td>
<td>Display your message to users every day.</td>
</tr>
<tr>
<td>Start and End</td>
<td>Use the Calendar icons to select a start and end date for your message.</td>
</tr>
</tbody>
</table>

4. Complete the following fields in the **Days of the Week** section:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every Day</td>
<td>Display your message to users every day of the week.</td>
</tr>
<tr>
<td>Days of the Week</td>
<td>Click on the days of the week to select the days on which you want to display your message.</td>
</tr>
</tbody>
</table>

5. Complete the following fields in the **Time of Day** section:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Day</td>
<td>Display your message during all hours of the day.</td>
</tr>
<tr>
<td>Time Slider</td>
<td>Adjust the slider to specify the hours of the day to display your message.</td>
</tr>
</tbody>
</table>

6. Click **Save** or **Save & Activate**.

**Troubleshooting In-App Messaging**

This information can help you troubleshoot your in-app messaging issues.

If you completed all the requirements for In-App Messaging, but messages do not show up, verify the following items:
<table>
<thead>
<tr>
<th>Situation or Issue</th>
<th>Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you putting the new configuration and new SDK in the app?</td>
<td>Verify that the SDK is version 4.2 or higher and is correctly configured. For a screen shot showing the SDK version, see View Hits in the Bloodhound documentation.</td>
</tr>
<tr>
<td></td>
<td><strong>Important:</strong> As of April 30, 2017, Adobe Bloodhound has been sunset. Starting on May 1, 2017, no additional enhancements and no additional Engineering or Adobe Expert Care support will be provided.</td>
</tr>
<tr>
<td></td>
<td>Ensure that you have a Messages section in your configuration (the downloaded JSON file) or have a Messages remote endpoint, so that it can be retrieved from dynamic tag management.</td>
</tr>
<tr>
<td>My full screen message in Android is not showing up. I am using the correct SDK, configuration, and my triggers are being met.</td>
<td>Did you update your manifest file to define the full screen activity?</td>
</tr>
<tr>
<td>My local notification message in Android isn’t working.</td>
<td>Verify that the local notification broadcast receiver is declared in your manifest. For more information, see step #1 in the How to Enable section in In-App Messaging.</td>
</tr>
<tr>
<td>Is the message live?</td>
<td>Check the list view in the Status column on the Manage In-App Message page and verify whether the message is live.</td>
</tr>
<tr>
<td>Double check the traits/trigger sections.</td>
<td>Verify assumptions in data for traits/trigger in bloodhound. Validate the hits in bloodhound. For a screen shot showing the SDK version, see View Hits in the Bloodhound documentation.</td>
</tr>
<tr>
<td></td>
<td><strong>Important:</strong> As of April 30, 2017, Adobe Bloodhound has been sunset. Starting on May 1, 2017, no additional enhancements and no additional Engineering or Adobe Expert Care support will be provided.</td>
</tr>
<tr>
<td>Look at show once, show always, show offline settings on the Audience page.</td>
<td>Verify that these settings are correct. On the Audience page, review the options on the Trigger tab, where you can specify how often the message is displayed.</td>
</tr>
<tr>
<td>If using launch event as trigger...</td>
<td>Launch only fires on a new session. For information on when a session begins, see lifecycleTimeout in the JSON Config file.</td>
</tr>
<tr>
<td>I updated my message remotely but my app is still showing the old message.</td>
<td>Complete one of the following tasks:</td>
</tr>
<tr>
<td></td>
<td>• Dynamic tag management might take a few minutes to update its endpoint with your new definition.</td>
</tr>
<tr>
<td></td>
<td>• Give it some time and try again.</td>
</tr>
<tr>
<td></td>
<td>• The config will only update on a new launch.</td>
</tr>
<tr>
<td>Situation or Issue</td>
<td>Suggestion</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| If the app was restarted in the life cycle session timeout, your new config might not have been downloaded. | The In-App Message full-screen template supports showing an image from a remote server (Image URL) or from the app bundle (Bundled Image). The image should be in a standard image format, for example, JPG, GIF, or PNG. Due to device screens having many different dimensions, the image probably not fit exactly into the space provided by the template. The template always focuses on showing the center of the image and crops (portrait) or fades (landscape) the sides if the image does not fit. Here is the exact placement and sizing rules for each orientation:  
  - **Portrait**, where the image is scaled to height of 195px for phone, 529px for tablet, centered if image width is smaller than device width, and cropped if image width is greater than device width.  
  - **Landscape**, where the image is scaled to 100% of height of device, width is 75% of the device, and with a fade out on the right.  
If you have issues with the full-screen template, you can download and use the Custom HTML template. The Custom HTML template provides greater flexibility for images and allows full control of the template. |
| My image does not fit exactly into the space provided by the template.            | My messages are not reflecting changes/updates I have made in the UI.  
The SDK fetches new/updated messages at the time of a lifecycle launch. This is only when the application is closed/backgrounded for greater than the lifecycle timeout value and then re-opened.  
Complete the following steps:  
1. Curl your messages URL in your config file to verify the remote message is updated (for example, curl *https://assets.adobedtm.com/b213090c5204bf94318f4ef0539a38b487d10368/scripts/satellite-542c62859662383b1a0008f4.json*)  
2. Close the application.  
3. Wait for a time period that is longer than the lifecycleTimeout in the config file.  
4. Open the app, navigate to where the message should be displayed, and verify that it has been updated. |

### Trigger an In-App Message when the App is Opened from a Push Message

You can set the in-app message trigger to be the push message ID that is sent when a user opens the app from the push message.

1. Get the push message ID for the push message that will be sent to the user.
   
   You can find the push message ID in the URL during the message creation workflow.
   
   Here is an example:
2. Save and activate the in-app message with the following trigger:

```
"a.push.payloadID" =
```

⚠️ **Tip:** The push message ID is the ID that you located in step 1.

This trigger must be manually added because it is not available in the **Trigger** drop-down list.

3. Save and send the push message that has the push ID that you located in step 1.

4. Click through the push message to open the app and verify that the in-app message displays when the app opens.

While you are testing, remember the following information:

- After you save the in-app message, it takes about 45 seconds for the hosted config file to update with the new message.
- The app looks for config file updates (the new in-app message) when there is a **new** launch, so you must ensure that the app is firing a new launch when the push message is clicked.

This usually means that you need to ensure that the session timeout has occurred. The default timeout is 5 minutes.
Frequently Asked Questions

Frequently asked questions and answers for Adobe Mobile Services and a general description of features.

- Adobe Mobile SDK
- Adobe Analytics
- Messaging
- Location
- Acquisition

Adobe Mobile SDK

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you make frequent updates with the SDK?</td>
<td>Yes, we are constantly making updates in effort to get you the most feature rich, standard-compliant, and secure SDKs. We typically release a new version every month. These SDK updates are drop-in replacements (for version 4x) to aid in ease of implementation. For more information on our updates, see our Release Notes.</td>
</tr>
<tr>
<td>What SDK version should I be on?</td>
<td>Our current SDKs are on version 4.11. For more information, see our Release Notes.</td>
</tr>
<tr>
<td>Where can I download the SDKs?</td>
<td>SDKs for individual mobile platforms may be downloaded by visiting the Manage App Settings section.</td>
</tr>
<tr>
<td>How do I configure the SDKs?</td>
<td>After you have created a new app report suite, navigate to Manage App Settings and configure all of the required options on the app information page. After you save your configuration, download the required SDKs from the bottom of the Manage App Settings page. The SDK will come pre-configured with the options you have saved and can be found in the ADBMobileConfig.json file within the SDK package. If you change any SDK settings on the Manage App Settings page, make sure you re-download the SDK files or update your ADBMobileConfig.json file with the necessary changes.</td>
</tr>
<tr>
<td>Do the Adobe Mobile SDKs support IPv6 for iOS?</td>
<td>The Adobe Mobile SDKs use the standard iOS and Android network stacks. For iOS, the SDK uses URLSession (iOS versions 7+) and NSURLConnection (iOS versions &lt;7) which are fully compliant with IPv6. Developers who have built or use their own networking stack may want to review if there are other mitigating considerations. Further information from Apple: If you’re writing a client-side app using high-level networking APIs such as URLSession and the CFNetwork frameworks and you connect by name, you should not need to change anything for your app to work with IPv6 addresses.</td>
</tr>
</tbody>
</table>

Adobe Analytics

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are Lifecycle Metrics?</td>
<td>Lifecycle Metrics are “out-of-the-box” metrics that are automatically collected when the SDK is first implemented in your app. For more information, see Lifecycle Metrics.</td>
</tr>
</tbody>
</table>
### Frequently Asked Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can I troubleshoot processing rules?</td>
<td>For more information, see <em>Processing Rules Tips and Tricks</em>.</td>
</tr>
<tr>
<td>Can I send my analytics data to multiple report suites?</td>
<td>Yes. The SDKs provide the ability to send data to multiple Adobe Analytics report suites. To capture data in multiple report suites by using an image request, set the multiple report suite IDs in the <code>rsids</code> field under <code>analytics</code> section in the <code>ADBMobileConfig.json</code> file, delimited by commas and no spaces. For more information, see <em>ADBMobile JSON Config</em> (see rsids variable).</td>
</tr>
<tr>
<td>How are Mobile visits different from launches?</td>
<td>A launch is measured by the SDK when a user opens the app for the first time or returns to the app after having been out of the app for longer than the specified timeout value. The typical timeout is 5 minutes (300 seconds) in <code>lifecycleTimeout</code> field, which is located in the <code>ADBMobileConfig.json</code> file. A visit is a server-side calculation by Adobe Analytics and is based on the first and last data hits that are sent by the SDK without exceeding a visit timeout. Typically, session timeouts are set at 30 minutes for a report suite. Although visits come from traditional web analytics, these hits still provide valuable insights into how users enter and exit from your app.</td>
</tr>
</tbody>
</table>

### Messaging

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there size or other limitations on push notifications?</td>
<td>Push notification messages have a 140 character limit. There are no limits on how many notifications might be sent or scheduled or how often notifications are sent.</td>
</tr>
<tr>
<td>Do you support custom payloads for push notifications?</td>
<td>Yes, we provide for a custom push payload that may coded in JSON. Android and iOS payloads are restricted to 4KB and 2KB respectively. These payloads are sent to the app via a push or a local notification. For more information, see <em>Experience: Push Message</em>.</td>
</tr>
<tr>
<td>Are there size limitations on in-app messages?</td>
<td>Published and active in-app messages created in Adobe Mobile Services are hosted on a server with a 15MB size restriction per app report suite. While this restriction applies to message content and resources hosted with Adobe, there are no restrictions on what resources the in-app message may refer to on other hosts or those within the app.</td>
</tr>
<tr>
<td>Can I use my own HTML for in-app messages?</td>
<td>Yes, we support custom HTML for your in-app messages. For more information, see <em>Experience: In-App Message</em>.</td>
</tr>
<tr>
<td>What triggers can I use to send push notifications or in-app messages?</td>
<td>Marketers may choose any Analytics data or event that is being sent as a trigger to display in-app messages. In-app messages use triggers that happen locally on the device. If multiple triggers are chosen, all triggers must occur in the same hit for the message to display. For more information, see <em>Experience: In-App Message</em>.</td>
</tr>
<tr>
<td><strong>Question</strong></td>
<td><strong>Answer</strong></td>
</tr>
<tr>
<td>--------------</td>
<td>------------</td>
</tr>
<tr>
<td>Push messages are sent using pre-existing Adobe Analytics segments or custom segments that may be created on historic Analytics data already collected. For more information, see <em>Experience: Push Message</em>.</td>
<td></td>
</tr>
<tr>
<td>Why am I getting an error with the in-app, push, or marketing link name that I typed?</td>
<td>You cannot use the same in-app message, push message, or marking link name in multiple apps that use the same parent report suite or VRS. To resolve this issue, enter another name for your in-app message, push message, or marketing link.</td>
</tr>
</tbody>
</table>

### Location

<table>
<thead>
<tr>
<th><strong>Question</strong></th>
<th><strong>Answer</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there a limit on how many Points of Interest (POIs) I can have?</td>
<td>There no specific restriction, but for ideal performance and due to memory restrictions on the user’s device, we recommend that you create or upload a maximum of 5000 POIs.</td>
</tr>
</tbody>
</table>

### Acquisition

<table>
<thead>
<tr>
<th><strong>Question</strong></th>
<th><strong>Answer</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Can I attribute campaigns to in-app activities?</td>
<td>Yes. Adobe Mobile Services can help you build marketing tricks that help promote and drive traffic to your apps and tie acquisition campaigns to in-app analytics and conversions. For more information, see <em>Acquisition</em>.</td>
</tr>
<tr>
<td>How can I set up links to acquire and track new app users?</td>
<td>You can create marketing links that route users to download applications from the Apple App Store and Google Play. These links allow you to attribute your success events to the downloads. For more information, see <em>Marketing Links Builder</em>.</td>
</tr>
</tbody>
</table>
Contact and Legal Information

Information to help you contact Adobe and to understand the legal issues concerning your use of this product and documentation.

Help & Technical Support

The Adobe Experience Cloud Customer Care team is here to assist you and provides a number of mechanisms by which they can be engaged:

- Check the Experience Cloud help pages for advice, tips, and FAQs
- Ask us a quick question on Twitter @AdobeExpCare
- Log an incident in our customer portal
- Contact the Customer Care team directly
- Check availability and status of Experience Cloud Solutions

Service, Capability & Billing

Dependent on your solution configuration, some options described in this documentation might not be available to you. As each account is unique, please refer to your contract for pricing, due dates, terms, and conditions. If you would like to add to or otherwise change your service level, or if you have questions regarding your current service, please contact your Account Manager.

Feedback

We welcome any suggestions or feedback regarding this solution. Enhancement ideas and suggestions can be added to our Customer Idea Exchange.

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