In just a few short years, enterprise mobile apps have become critical to businesses in virtually every industry.

The list of mobile enterprise apps that companies rely on daily includes sales enablement tools, e-commerce apps, product catalogs and inventory tools, training apps, field service tools, internal and external communications tools, and many more.

Despite the importance of these apps, enterprise mobile app development has, to this point, been a fragmented, complicated and expensive process. Adobe Experience Manager Mobile—Adobe’s solution for building and managing mobile apps—can dramatically change this proposition. Among its many advantages, AEM Mobile offers remarkable deployment flexibility, enabling enterprises to use a variety of content sources. This white paper splits those sources into three options:

<table>
<thead>
<tr>
<th>#</th>
<th>Content Source</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Adobe Experience Manager (AEM) as the Content Management System (CMS)</td>
</tr>
<tr>
<td>2</td>
<td>Custom-integrated third-party content using the On-Demand Services API—e.g., a customer relationship management system (CRM), product information management system (PIM), or a CMS other than AEM</td>
</tr>
<tr>
<td>3</td>
<td>Ad Hoc content creation and management using InDesign, Adobe Document Cloud PDFs, or HTML</td>
</tr>
</tbody>
</table>

Purpose of this white paper

This white paper focuses on the deployment of option 3, using ad hoc content sources. It explains in detail the process of using a variety of authoring tools for the content of your app. The discussion includes:

- What it realistically takes to implement and use ad hoc content with AEM Mobile.
- How to create, deploy, and extend your app.
- Links to detailed documentation for each major step.
Structure of the paper

The first part of this paper provides a general overview of all three deployment options, including how to choose the best option for your particular needs, as well as a brief description of the downstream workflow phases following deployment. The second part of the paper is a deep-dive discussion of deployment option 3: using a standalone data source.

Detailed discussions of deployment options 1 and 2 ([1] using Experience Manager and [2] third-party content) can be found in companion white papers "Using Experience Manager with AEM Mobile" and "Using a Third-Party Content Source with AEM Mobile." Each white paper in the series charts the steps for its individual deployment path.

AEM Mobile Product Overview

AEM Mobile is Adobe's solution for building and managing enterprise mobile apps. Enterprise mobile apps have different challenges and requirements than consumer mobile apps. AEM Mobile is designed to meet these challenges. It allows organizations to:

- Accelerate time-to-market with business critical apps.
- Develop native mobile apps for iOS, Android and Windows without the complexity and expense of native development. You can also deliver app content and functionality to the Desktop Web Viewer for users without a mobile device.
- Leverage content from Experience Manager and other content management systems for the mobile channel.
- Centrally manage all mobile apps in the enterprise.
- Take advantage of integrated Adobe Marketing Cloud solutions alleviating the need to purchase point products for digital marketing needs.

AEM Mobile Deployment Options

AEM Mobile allows an enterprise app to display content or data from multiple sources. The result is considerable flexibility in how you create, manage, and update content that is published to your app. These are the choices you have and what we'll cover in detail:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><img src="AEM.png" alt="AEM" /></td>
<td>Adobe Experience Manager (AEM) as the Content Management System (CMS)</td>
</tr>
<tr>
<td><img src="API.png" alt="API" /></td>
<td>Custom-integrated third-party content using the On-Demand Services API (e.g., a CRM or PIM system) or a CMS other than AEM</td>
</tr>
<tr>
<td><img src="InDesign.png" alt="InDesign" /></td>
<td>Ad Hoc content creation and management using InDesign, Adobe Document Cloud PDFs, or HTML</td>
</tr>
</tbody>
</table>
How should you choose your content sources?
Choosing your content source or sources will be driven by a number of questions, including:

• Where does the content that you already have come from? Who creates it? Will you repurpose that content and those resources for delivering content to mobile?
• Who will create the content for your mobile app(s), and what kind of skills do they have? Typical content creators include:
  • A designer (web- or print-oriented, HTML, PDF, InDesign)
  • A non-designer marketer or producer (using CMS/templates/workflow)
  • A developer (HTML/database-driven, automated workflows)
• Who will update the content, how frequently, and using which tools?
• What do you need automated based on other content updates or workflows?

Based on these factors, you could choose to use just one of these content sources or any combination of the three. Remember, you are not limited to a single path.

Scenario 1: Experience Manager as a content management and authoring system
If you are an existing AEM customer, you can leverage your investment and infrastructure for your web properties to drive mobile apps. AEM can now be your single source of assets and content for a true multi-channel operation.

Even if you do not currently use AEM, adopting it gives you an opportunity to build a robust content infrastructure that lays the groundwork for an efficient multi-channel content creation and management operation.

If you want to leverage additional custom systems such as a PIM or CRM system, or any other data source, AEM is a logical choice. AEM will act as an integration point and centralized hub to manage incoming data from any number of sources.

Please note that to effectively use AEM in your organization, it needs to be customized to your needs, and you will require a specific set of skills and resources. Many customers work with Adobe Solution Partners and system integrators to deploy, configure and customize AEM and create templates that can then be used by internal staff.

The paper "Using Experience Manager with AEM Mobile" covers these resource requirements, including:
• On-premise server hosting and systems administration (or Adobe Managed Services)
• AEM developers of templates, components, and workflows
• Content creators and managers
Scenario 2: Third-party content source

If you already use a content management system (CMS) for authoring and managing content for another channel, such as a web site, and you decide you want to use some or all of the assets that are already in that system for your mobile app, then it may make sense to integrate that CMS with AEM Mobile.

Likewise, if your content source is another system that is not a CMS, such as a product information management system or a customer relationship management system, your best approach may be to leverage AEM Mobile's On-Demand Services APIs to integrate your system(s) with AEM Mobile.

Scenario 3: Ad hoc content creation and management

If you don't use a CMS or another structured data system, and your team creates document- or HTML-based content, your best approach may be to simply manage your content using the AEM Mobile On-Demand Services to distribute to your mobile apps.

This approach supports HTML, Adobe InDesign, and PDF content, with a direct integration with Adobe Document Cloud.

Scenario 3 will be covered in detail in this paper. Scenarios 1 and 2 are covered in separate documents.
The Ultimate Goal: A Mobile App

Before describing in detail the way in which you manage the content of your mobile app, there are common shared practices in the overall app creation workflow and lifecycle of every deployment scenario. After you’ve built and deployed your app, you can update content to it using a number of different authoring tools without requiring a rebuild and update of the app binary.

As shown below, in a breakdown of an app’s workflow:

- Content flows to the app built using AEM Mobile On-Demand Services
- Device-level functionality is introduced with Cordova APIs
- The deployed apps are measured and optimized using insight and tools offered by Marketing Cloud

Once you choose your content source, the workflow for building, extending, delivering, measuring and optimizing your apps is the same.
In this paper, we will be detailing Scenario 3: Ad Hoc Content Creation and Management. First, we've outlined the phases of the workflow described above, that are common across all scenarios, no matter what you choose as a content source.

AEM Mobile On-Demand Services are accessible via a Web browser (https://aemmobile.adobe.com) or through the AEM Mobile On-Demand Services API.

The On-Demand Services provide the following capabilities for building and extending apps:

- Manage projects, settings, roles, users, and access
- Create app binaries to be deployed on individual mobile devices
- Distribute content to mobile apps
- Define content organization, visualization, and navigation screens
- Manage entitlement to content (subscriptions, products, restricted collections)
- Manage text notifications
- Expose content and notification services through AEM Mobile
- AEM Mobile On-Demand Services API for third-party system integration

Cordova extensibility, available in HTML articles and web overlays in InDesign-based articles, provides access to the following capabilities:

- Core Cordova plug-ins – Take advantage of core Cordova plug-ins such as Camera, Contacts, Geolocation, and File Sharing
- Custom Cordova plug-ins – Leverage plug-ins from the Cordova/PhoneGap community or create your own plug-ins. Examples: barcode scanning and mobile databases
- AEM Mobile specific plug-ins enabled through Cordova – Plug-ins to access specific data related to the application and the content metadata.
Your AEM Mobile apps can be deployed to iOS, Android, Windows as well as a Desktop Web Viewer. Apps can be deployed publicly through each platform's app store, or internally, including via Mobile Device Management (MDM) systems.

For measuring and optimizing your apps, Analytics Essentials and Push Messaging are included with an AEM Mobile license. In addition, the following products, which are part of Adobe Marketing Cloud, work well with AEM Mobile, but require additional licenses:

- Adobe Mobile Analytics
- Mobile Marketing, including In-App Messaging, and Acquisition Tracking

See the "App Deployment" and "Integration with Adobe Marketing Cloud" sections of this document for more information.

**Scenario 3: Using Ad Hoc Authoring Tools as the Content Source**

For enterprise apps with large amounts of content, using a content management system such as AEM is the recommended approach. Ad hoc authoring tools such as Adobe InDesign or an HTML editor require a significant amount of production and design work, making them less effective choices for large enterprise apps.
However, using ad hoc tools can be effective when used in conjunction with content management systems, or as the sole authoring choice for certain types of apps, such as smaller apps that can benefit from design-intensive interactive content.

**Fixed Layout (InDesign) vs. Reflowable Layout (HTML)**

It's important to understand a key difference in how AEM Mobile apps display two types of content: fixed layout and reflowable HTML.

If you create HTML articles, the content can flow to fill the screen regardless of the device or platform, with no letterboxing. With a specific type of reflowable design known as responsive HTML, you can use media queries to modify the design to conform to different sizes, such as resizing images and using larger fonts on smaller screens.

**Reflowable content**

![Image showing fixed layout vs. reflowable layout](image)

When you create articles based on InDesign layouts, the articles are fixed to a specific dimension, such as 768x1024 pixels. When displayed on a tablet or phone, the content maintains its dimensions and is scaled and letterboxed as needed to fit within the display area.

**Fixed layout : Designed for tablet and scaled for mobile and desktop**

![Image showing fixed layout for different devices](image)

PDF articles can be either fixed layout (paginated and letterboxed) or reflowable (smooth scrolling with lines between pages), depending on the options you specify when creating the PDF-based articles.
InDesign Authoring

InDesign can be an effective tool for creating rich interactive content for mobile apps. You can take advantage of InDesign (CS6 or later) page-layout features and use the Overlays panel to design beautiful interactive content quickly. However, there are two main drawbacks to using InDesign for authoring app content. First, the fixed-layout articles are scaled and letterboxed to fit on different devices, as described earlier. Second, in many cases, using InDesign to create and update content for large enterprise apps requires too much design and production effort.

Despite these limitations, InDesign can be a useful authoring tool in the following situations:

- **For building a proof-of-concept app.** It’s easy to use InDesign to create well-designed articles quickly. You can then use these articles to build a proof-of-concept app to get a general idea of what your app will look like on a target device such as the iPad.

- **Interactivity.** For certain articles in the app, you can use the Overlays panel to take advantage of InDesign’s set of interactive overlays. Overlays such as slideshows and scrolling frames can provide interesting design effects.

- **Convert print materials.** If you print materials that were created in InDesign, it’s easy to repurpose them for use in a mobile app.

Example of a scrolling frame creating using the Overlays Panel in InDesign.
For information about using InDesign to create content for AEM Mobile apps, see the following articles:


**HTML Authoring**

You can use a number of different authoring methods, including Adobe Dreamweaver and Adobe Muse, to create HTML source files for AEM Mobile articles. As is the case with InDesign, using a standalone HTML authoring tool to create all the content for a large enterprise app is not recommended due to the amount of production work required. However, you might want to use standalone HTML tools to create a specific effect in an article or to generate content for a proof-of-concept app.

When authoring any type of HTML content, whether using standalone tools or content management systems, we recommend that you use CSS media queries to enable responsive behavior.

**Ad Hoc HTML authoring**

After you use an authoring tool such as Dreamweaver to create HTML content, you must package the content in an article format that can be uploaded to the On-Demand Service. Use the HTML Article Packager to create article files for HTML content. The HTML Article Packager is a drag-and-drop application. Add the HTML Article Packager alias to your desktop or toolbar, and then drag-and-drop the folder or folders containing the HTML files. An article file in the appropriate format is created for each folder. For more information, see the following article:


**Optimizing HTML articles**

HTML content that performs well in desktop browsers may not perform as well on mobile devices. When creating HTML articles, optimize images for mobile devices, reduce the size of video and audio files to improve performance, and avoid complicated code that can make content sluggish in mobile browsers.

For details, see Optimizing images for AEM Mobile apps

| For details, see Optimizing images for AEM Mobile apps | https://helpx.adobe.com/digital-publishing-solution/help/optimize-images.html |

**Controlling gestures in HTML articles**

By default, tapping a non-interactive area displays the navigation bars in viewers, and swiping navigates to the next or previous article or page. In HTML articles, the viewers do not display the navigation bars for known interactive HTML elements such as: `<a/>`, `<video/>`, `<audio/>`, `<textarea/>`, `<input/>`, and `<button/>`. Tapping on other elements displays the navigation bars.

By using the HTML Gesture APIs, you can help ensure a good user experience for more advanced interactive HTML elements. For example, if you have a full-screen slideshow, you can customize the experience to allow users to swipe to the next article on the last slide. If you have an HTML puzzle, you can set it up so that tapping the canvas displays the navigation bars while tapping a puzzle piece does not display the navigation bars.

Is Adobe Muse Recommended?
Adobe Muse is an excellent, designer-friendly tool used for designing websites. Muse includes a number of interactive widgets, such as slideshows and accordion effects that can enhance the design. However, Muse isn't designed to create mobile app content.

Basically, there are three problems with using Muse as an authoring tool:

• Muse is a website authoring tool that isn’t really designed for exporting individual HTML pages.

• Muse does not honor the AEM Mobile viewers as browsers. AEM Mobile apps use UIWebView instead of Safari (WKWebView/WebKit) for iOS and Android WebView instead of Chrome.

• When you export to HTML from the current version of Muse, the gestures aren't handled correctly. For example, users can't swipe to the next or previous article. To fix this, Muse users need to break open the HTML files and incorporate the gesture APIs. Muse users are designers, not coders.

If you are using Adobe Muse to create HTML articles for a mobile app, we recommend that you add the Gestures API to your Muse project. Bates Creative created a mucow for this purpose. The code and instructions are found here:

| AEM Mobile Gestures API for Adobe Muse | https://github.com/asheabbott/aem-mobile-gestures-api-for-muse |

PDF Authoring
A common request from enterprise customers is the ability to display PDF documents for reference, without having to go through extra production effort to convert the PDF files to a mobile device format. Adding PDF files to your AEM Mobile app is easy. You can upload PDF files directly.

There are two methods for creating AEM Mobile articles based on PDF files:

• Using the Acrobat Add-on

• Directly uploading the PDF file in the On-Demand Portal

For details, see Create article from PDF files | https://helpx.adobe.com/digital-publishing-solution/help/pdf-export.html
Migrating Content from DPS

If you have a Digital Publishing Suite app that you want to update to AEM Mobile, the Folio Migration Tool makes it easy to duplicate your content for use in an AEM Mobile project. For each folio you migrate, a collection is created that includes all the articles in the folio.

For information about migrating DPS content, see the following articles:

|-----------------------------------|--------------------------------------------------------------------------------------|

App Creation and Management Workflow

Creating and managing an AEM Mobile enterprise app entails using On-Demand Services to build an app and design its basic interface, and then manage the app’s content updates, messaging, and analytics.

Required Skills and Staff

The following roles and underlying skills are needed to create and manage an AEM Mobile app:

**Designers:**
- User Experience Design (for app experience)
- Web/Graphic Design (for content templates)

**Developers:**
- HTML/JavaScript/CSS (to extend the app’s functionality and leverage Cordova plug-ins)
- Back-end Development (to integrate with other enterprise systems or entitlement services)

**Content Creators/Managers/Marketers:**
- Content Authoring and Management
- Direct Marketing
- Business Analysis

These resource and skill requirements depend on the nature of your app. The simplest app might not require custom workflow or back-end development. A single person may perform activities across more than one of the above skill sets.
App Creation Workflow

Anyone can use the simple app building wizard in the On-Demand Services that generates pre-built native apps for iOS, Android, and/or Windows. Please note that:

- Apps are branded with icons and splash screen graphics
- Apps require appropriate platform-specific certificates for signing the apps prior to installing on devices, using a provided signing tool

Designing cards & layouts in On-Demand Services

The app experience is determined by the navigation screens and content delivered to the app. Please note that:

- Designers can create app navigation screens using the WYSIWYG Layout Tools
  - Alternatively, custom app navigation screens can be created using HTML/JavaScript/CSS
- Developers can extend the app via HTML/JavaScript/CSS:
  - Dynamic/interactive app screens
  - Native device capabilities via Cordova APIs
  - Back-end developers can build Integrations with enterprise systems such as ERP, CRM, or other systems
Content Creation and App Management Workflow

Content creators can create and deliver content into the app using content created from InDesign, PDFs, or HTML designed in any authoring environment.

- Upload content from any source or a combination of sources to On-Demand Services
- On-Demand Services enables efficient app updates via a global Content Delivery Network (CDN)

Marketers can send in-app messages and push notifications to app users to notify and engage users, and pull in users who haven't opened the app in some time.

Analysis and Iteration Workflow

Marketers or business analysts can glean app usage insights from Adobe Analytics. With this solution:

- App content/UI/logic/functionality can be iteratively updated.
- Content and app UI updates do NOT require a new build of the app, and therefore do not require resubmission to app store review processes

Extend Functionality/Access Device Features Using Cordova

Apache Cordova is an open-source framework for leveraging and extending mobile device capabilities through the use of simple HTML, CSS, and JavaScript. A host of Cordova core plug-ins can be activated or called from AEM Mobile apps using the appropriate JavaScript functions.

Core plug-ins embedded in AEM Mobile applications include:

<table>
<thead>
<tr>
<th>Core Plug-ins</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>File Access</td>
<td>Allows read/write access to files on device</td>
</tr>
<tr>
<td>File Transfer</td>
<td>Provides functionality to upload and download files</td>
</tr>
<tr>
<td>Notification Dialogs</td>
<td>Provides access to native dialog UI elements</td>
</tr>
<tr>
<td>Network Information</td>
<td>Provides information about device cellular and wifi connections</td>
</tr>
<tr>
<td>Geolocation</td>
<td>Provides info about device location</td>
</tr>
<tr>
<td>Camera</td>
<td>Access the device’s camera</td>
</tr>
<tr>
<td>Contacts</td>
<td>Access the device’s contacts</td>
</tr>
<tr>
<td>Device Info</td>
<td>Describes the device’s hardware and software</td>
</tr>
<tr>
<td>Device Motion</td>
<td>Provides access to the device motion sensor</td>
</tr>
<tr>
<td>Device Orientation</td>
<td>Provides access to the compass</td>
</tr>
<tr>
<td>Media</td>
<td>Provides the ability to record and play back audio files on a device</td>
</tr>
<tr>
<td>Media Capture</td>
<td>Provides access to device audio, image and video capture capabilities</td>
</tr>
<tr>
<td>Globalization</td>
<td>Provides access to operations specific to the user locale, language, and timezone</td>
</tr>
<tr>
<td>Vibration</td>
<td>Access to vibrate the device</td>
</tr>
<tr>
<td>WKWebView</td>
<td>Uses WKWebView instead of UIWebView for HTML Articles and Web Overlays on iOS9</td>
</tr>
</tbody>
</table>

These core plug-ins are available to use in any of your AEM Mobile applications. To take advantage of these plug-ins you must first enable them on the app settings page for your iOS, Android, or Windows application.


Beyond the standard set of core Cordova plug-ins, there is an extensive developer community focused on creating Cordova plug-ins. Additional plug-ins built for platforms such as Phonegap, or Ionic may also be compatible with AEM Mobile applications, as these platforms are also based on the Cordova framework.
App Previewing and Deployment

Once you start flowing content into On-Demand Services and designing the app interface, you can preview the end-user experience using the AEM Preflight tool. AEM Preflight is a publicly available app downloadable from app stores that allows you to test all functionality and flow of your app.

When you are ready to go live, you build your app using On-Demand Services, you publish your content, and you deploy your app. Content and app interface updates can be made to your deployed app without requiring app rebuild and redeployment.

The AEM Preflight app for each platform can be found at the following links:

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<tr>
<th>Platform</th>
<th>Link</th>
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Details for building and distributing apps for each target platform can be found at the following links:

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<th>Platform</th>
<th>Link</th>
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</table>

Additional App Services

In addition to the robust range of services described to manage content, build, design, and deploy apps, AEM Mobile also provides the following:

**Global Content Distribution Network**

The AEM Mobile Delivery Service hosts your content for distribution to your end users. When an end user downloads content, the content is fetched from edge servers on a content delivery network. For information on this and other related topics, see:

<table>
<thead>
<tr>
<th>Service</th>
<th>Link</th>
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</table>
Notifications Service

Push Notifications can be sent to the devices of all users that have installed your app, or targeted to a specific set of users. These messages do not require users to currently be running your app. Push notifications can trigger content downloads or display text notifications to users.

Once configured, a non-technical user can compose, target, and send push notifications through the AEM Mobile web portal.

Authentication Integration

If you want to add a sign-in function to your app, you can implement and control the authentication process. The custom authentication sign-in experience appears in the app as a full-screen web view that you design. We support the following protocols:

- SAML 2.0, including MFA/OKTA support
- OAuth 2.0, including support for social sharing logins such as Facebook or Gmail

For example, you can allow your sales representatives to login to the app using their email and password plus OKTA verification (SAML 2.0). Or, you could allow customers to log in to the app using their Gmail or Facebook account (OAuth 2.0). The app obtains authorization tokens from these identity providers, which you can use in your entitlement service to grant users access to content.

AEM Mobile also provides support for Generic identity providers, including a setAuthToken API. You can take advantage of custom authentication without having to use SAML or OAuth. Generic identity providers allow two alternate authentication use cases, including:

- Providing a custom UI such as an HTML form instead of using the standard user name and password prompt
- Building a sign-in experience within an article rather than through the standard authentication process.

These enhancements let you expand your authentication capabilities, such as including multiple authentication methods within the same app.

For more information, see:

Entitlement Support

By setting up your own entitlement service for your app, you can allow authenticated users to become entitled to specific content. Adobe has provided example code for a basic entitlement service. Instructions for editing this sample code and uploading it to your server are found at:

Set up an entitlement service  https://helpx.adobe.com/digital-publishing-solution/help/direct-entitlement.html

Integration with Adobe Marketing Cloud

AEM Mobile integrates with Adobe Marketing Cloud to add powerful analysis, marketing, and messaging capabilities to your apps. Analytics Essentials is included with all AEM Mobile contracts. In-app messaging and acquisition tracking are provided through the Mobile Marketing SDK and require an additional purchase through the Adobe Marketing Cloud.

Analytics

Analytics in AEM Mobile apps is provided by Adobe Marketing Cloud. You can access these integrated analytics tools as follows:

- If your company has an Adobe Analytics account, you can specify that account information in Master Settings (requires a Master Admin account). Doing so links your projects to the Adobe Analytics account.
- If you do not have an Adobe Analytics account, you can request a complimentary Analytics Essentials account through Master Settings.

The capabilities of full Adobe Analytics enable sophisticated analysis of your apps, including the paths that users take through your apps, and even the behavior of different groups of users over time.

![Adobe Analytics Pathing Analysis](image)

Adobe Analytics Pathing Analysis
By visualizing common paths that users take through your app, you can determine, for example, if you should move a piece of content or functionality so that it’s easier to access.

Adobe Analytics Cohort Report

Retention analysis using a Cohort Report shows how likely it is for users that first installed your app during different time periods to return to the app over time. With this data, you can see how changes to the app and content over time impact users’ engagement with the app.

See more: https://helpx.adobe.com/digital-publishing-solution/help/analytics.html

You can also purchase additional Marketing Cloud capabilities such as In-App Messaging and Acquisition tracking.
In-App Messaging
By leveraging the capabilities of the Mobile Services SDK non-technical users can easily create, manage, publish, and measure custom messages that appear within AEM Mobile apps. You can specify sophisticated triggers and targeting for in-app messages, allowing you to offer targeted product suggestions, cross-promote related apps, or serve up relevant content.

Adobe Analytics Cohort Report

Acquisition Tracking
For publicly available apps created with AEM Mobile, Acquisition Tracking can help you understand exactly which campaigns are driving the most app store downloads, and help you understand the effectiveness of your overall user acquisition efforts.

Conclusion

As explained in this paper, using ad hoc authoring tools as your content source with AEM Mobile can be the right choice for certain needs. Authoring tools such as InDesign, Adobe Document Cloud, Adobe Dreamweaver, Adobe Muse, and others can be effective as the sole authoring tool for less data-intensive enterprise apps that can benefit from design-intensive interactive content.

If you choose this route, it is important to heed the caveats and follow the guidelines set forth in this paper. For large enterprise apps, for example, we recommend using a feature-rich content management system such as Experience Manager because of the significant amount of production and design work required for ad hoc content creation. For these more data-intensive enterprise apps, ad hoc authoring tools can still be used effectively to supplement other CMS-driven content.

If you have additional questions about this deployment path, refer to the detailed documentation and videos cited throughout this document or consult with your Adobe Representative or Adobe Solution Partner.