Mobile Adaptive App

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UPM 25.x

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Shared Under NDA

Contents

Branded Mobile App Policies & Development

ZINFI Policy & Process

Extending ZINFI UPM's adaptive software-as-a-service (aSaaS) to smartphones and other mobile devices, viz. tablets via UPM Mobile Ready App, gives organizations a robust competitive advantage that can help drive revenue and enhance the partner and customer experience remotely. Whether they're viewing up-to-the-minute accounts or contact information, updating an opportunity, scheduling an activity with UPM Mobile Ready Application, you and your on-the-go professionals will have mobile, secure, and instant access to vital customer and partner information and the productivity tools they need to succeed.

UPM Mobile Ready Application Architecture

UPM Progressive Web App for Mobile Devices is the UPM Customer Web Portal/Application for the Customer's Users and Partners to utilize on-the-go upgraded with Mobile App look and feel. The UMC PWA Mobile App is developed using the single client UPM Web App code base and can be uploaded to Google Play or iOS app store for universal sharing and usage.

The UPM PWA Mobile App leverages the latest web technologies to provide a seamless, fast, reliable, and engaging user experience – eliminating the need for device storage capacity. UPM's progressive web app combines the look, feel, and use of an app with the ease of functionalities provided by the UPM Web App/Portal.

Privacy and Data Integrity via HTTPS and TLS
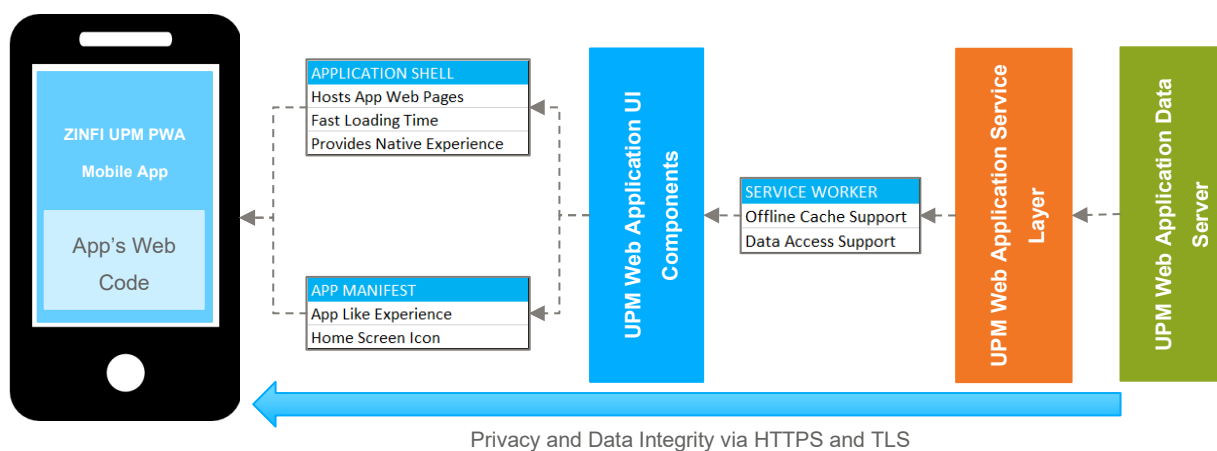
Based on the above architecture, the UPM Client Portal is upgraded and provided to the Client as a UPM Custom Branded Mobile PWA. To request a custom UPM PWA mobile app, the following can be considered as a pre-requisite:

- **Client should have a UPM Portal instance – the UPM progressive web app is an extension of the UPM Portal/Web App with newer features that ensure an app-like experience.**
- **Client should have Registered Users in the UPM Portal/Web App – users registered for the Client Portal usage will only have access to the UPM Custom Branded PWA Mobile App.**

The Client Custom Branded Mobile PWA is completely architected out of the Client UPM Portal along with the added infrastructure:

- **Application Shell -** The application shell is the minimal HTML, CSS, and JavaScript powering the Custom Branded Mobile PWA user interface and helps to load fast, be cached, and dynamically display content. The application shell is the secret to reliably good performance by providing the Native Mobile Platform experience. The app's shell is the bundle of code that renders the native app experience to the UPM Portal and keeps the Client UPM UI local, and pulls in content dynamically through an API.
- **Web Manifest -** The web manifest is a JSON file that determines the look and feel of the custom-branded app during installation. It is used to customize the look of the home screen icon and how the web app is launched. It generally includes metadata like app name, version, description, etc. In short, it is essential for creating and providing the native app-like experience.
- **Service Worker -** The service worker runs in the background and is responsible for precaching the page resources so that the UPM webpages load fast and sometimes can even be used for offline functionality. When a user visits the website for the first time, the service worker caches the critical assets like the HTML files and images so that it does not need to make API calls to the backend as frequently the next time a user visits the UPM Portal.
- **Transport Security Layer (TLS) -** Progressive web apps communicate over HTTPS using SSL certificates installed on the web server. The certificate creates a secure, encrypted connection between the frontend app and the backend server. Using TLS protocol, secure data transfer is ensured when the web app interacts with backend servers. This is essential to ensure the privacy and security of user information and is critical for handling customer information.

Limitations for the Custom Branded Mobile PWA

- Post Login UI/UX branding theme profile of the UPM Custom Branded Mobile PWA will be based on the Theme configured via UPM FluidCMS – Portal Identity for the UPM Web App. All color profiles configured for the UPM Web App will automatically render for the UPM Custom Branded Mobile PWA.
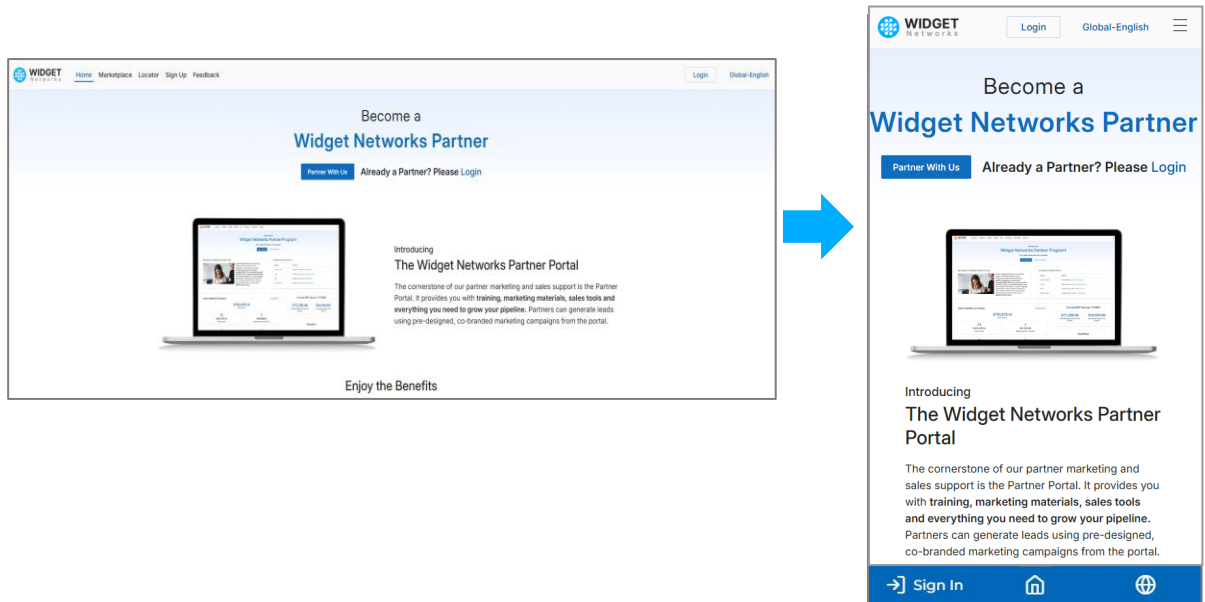
- Module specific Branding not supported.
- Module cannot be exclusively developed/customized for the UPM Custom Branded Mobile PWA. The Module developed/customized will be updated/provisioned for both the UPM Web App and the UPM Custom Branded Mobile PWA.
- UPM Custom Branded Mobile PWA is only supported for UPM Web App with version 13.10 and onwards.
- UPM Custom Branded Mobile Progressive Web App does not require a separate codebase for different mobile platforms like Android and iOS. Hence, exclusive feature upgrades/portal functionalities for these apps cannot be processed and provided without default provisioning them for the UPM Web App.
- Modules and Features **not** available/provided and exempted with limited functionality:

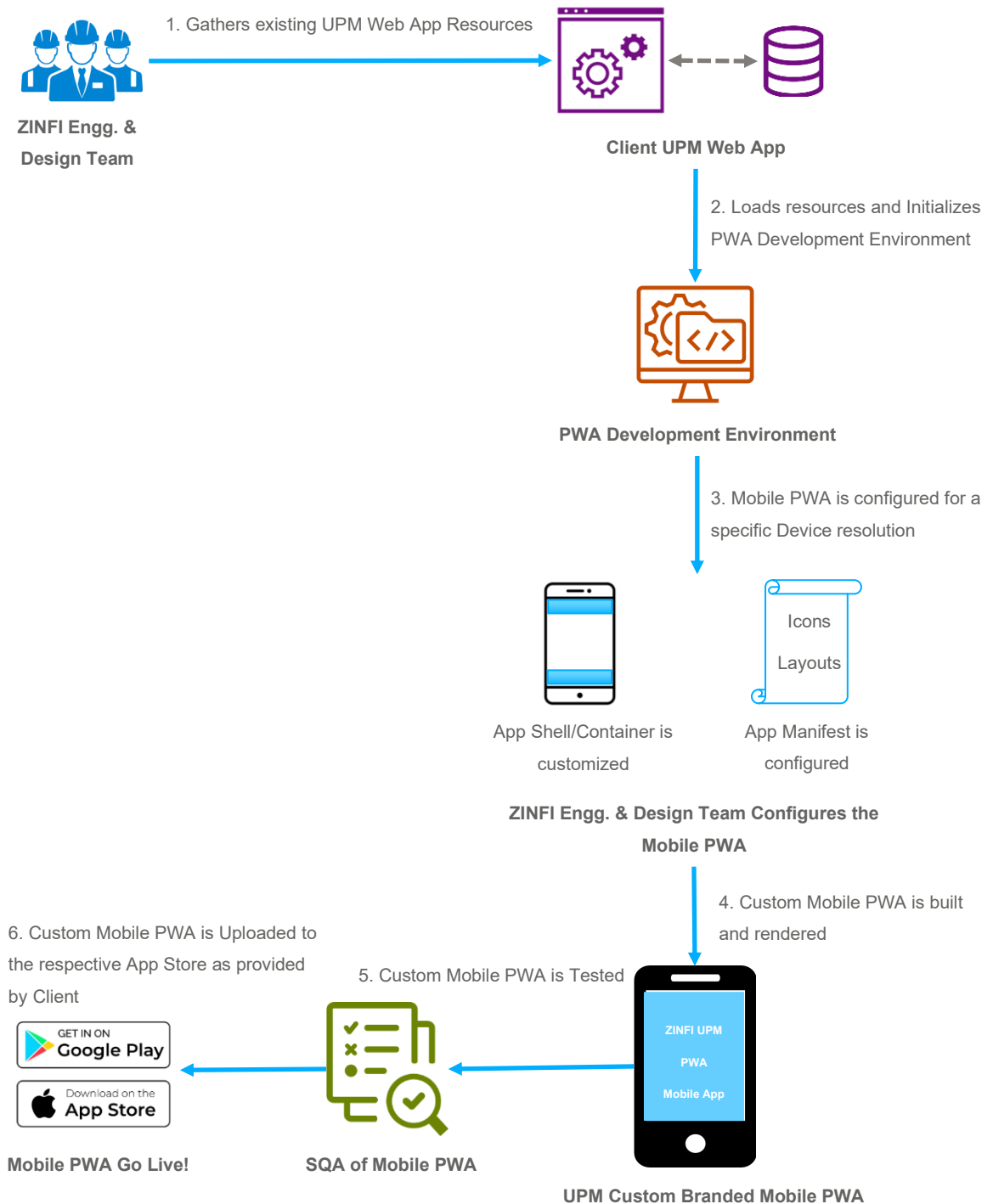| UPM Applications	Comments
Generic – Across All UPM Modules	Select/Check All Functionality Not Available - All records in a Module List page cannot be selected. Sorting Functionality Not Available – All records in a Module List page cannot be sorted.
Workflow	Not available – due to multi-configurable features requiring a significant canvas/page dimension.
CMS	Not available – due to multi-configurable features requiring a significant canvas/page dimension.
Connectors/CENTRi - Integration Management	Not available – due to multi-configurable features requiring a significant canvas/page dimension.
Co-branded Assets Management - Assets	Co-brandable Zones cannot be configured, and Assets cannot be co-branded owing to features requiring a significant canvas/page dimension. Manage Category Tree Not Available.
Library	Manage Category Tree Not Available – due to multi-configurable features requiring a significant canvas/page dimension.
PMM Modules	Multi-Touch Campaign Builder is unavailable due to multi-configurable features requiring a significant canvas/page dimension.
Reports	Due to screen size restrictions, UPM Reports rendered via MS PowerBI are visible and minimalistic.

Custom Branded Mobile PWA Offerings

- The Custom Mobile Branded PWA App for Mobile OS specific (Android/IOS) will be provisioned.

- The UPM Custom Mobile Branded Progressive Web App does not require a separate codebase for different mobile platforms like Android and iOS. Hence, the updates for these apps are automatic as upgrades are provided to the UPM Web App, and users need not download updates from the respective app stores. The entire process is a server-side operation, and the user will receive the latest version of the application per the UPM Web App Release Version.

- Upgraded Web App feature functionality will be tested for the UPM Custom Mobile Branded Progressive Web App. ZINFI will support the resolution of bugs for the Custom Mobile Branded PWA App.

- Resolution of bugs for the Custom Mobile Branded PWA App will **not** be considered for the Modules/Features already listed as exempted.

Custom Branded Mobile PWA Request Process

- Customer/Client with existing UPM Web App Subscription requests for the Custom Branded Mobile PWA to the ZINFI PSM via an Email.

- Customer/Client to provide the following basic details:
    - App OS Version – IOS/Android
    - Device Screen Size/Resolution to be supported
    - Name of the App
    - Zones/Countries where the App is to be made available
    - Data Privacy/Legal Laws (if any) that the App must comply with.

- Request is validated by PSM initially from ZINFI Finance, Legal, and Product Team.

- If validation is unsuccessful, then the ZINFI PSM, on behalf of ZINFI Finance, Legal, and Product Teams, will revert to the Client for resolution of conflicts and, once resolved, will proceed to the next step.

- On the validation being a success, the ZINFI PSM will request the following from the Client for architecting the App Shell for the Custom Branded Mobile PWA, as listed below:
    - App Icon
    - Splash Screen
    - Login Screen

- Once the Customer/Client provides, the details will be supplied to ZINFI Engineering and Design Teams for final validation.

- Details are validated, and a successful validation leads to the kickoff of the Custom Branded Mobile PWA development for the specific platform by ZINFI Engineering and Design Teams.

- In the interim, the Customer/Client will be requested to create and share the IOS App Store/Google Play Store credentials for sharing with ZINFI Team for testing and upload.

App Development & Support

PWA Development Summary

ZINFI Engg. & Design Team

1. Gathers existing UPM Web App Resources

Client UPM Web App

2. Loads resources and Initializes PWA Development Environment

PWA Development Environment

3. Mobile PWA is configured for a specific Device resolution

App Shell/Container is customized

Icons

Layouts

App Manifest is configured

ZINFI Engg. & Design Team Configures the Mobile PWA

4. Custom Mobile PWA is built and rendered

6. Custom Mobile PWA is Uploaded to the respective App Store as provided by Client

5. Custom Mobile PWA is Tested

ZINFI UPM PWA Mobile App

GET IN ON Google Play

Download on the App Store

Mobile PWA Go Live!

SQA of Mobile PWA

UPM Custom Branded Mobile PWA

Support and Upgrades

- Customer/Client to create App Store credentials and provide initial information as provided through *Section: App Store Submissions & Reviews.*

- ZINFI to provide support for App Store configuration (if needed).

- ZINFI to upload Mobile PWA to App Store and will support the review and launch process for the Custom Branded Mobile PWA to Go Live.

- ZINFI to communicate and resolve disparities for the review and launch of the Mobile PWA with Customer/Client and App Store.

- UPM Version Upgrade is automatic as per upgrade of UPM Web App.

- Support for specific UPM Custom Branded Mobile PWA upgrades/updates respective to App Shell/Container Updates to be provided by ZINFI as per the MSA.
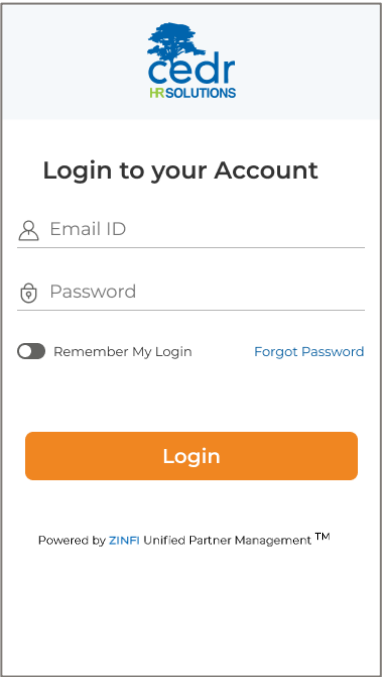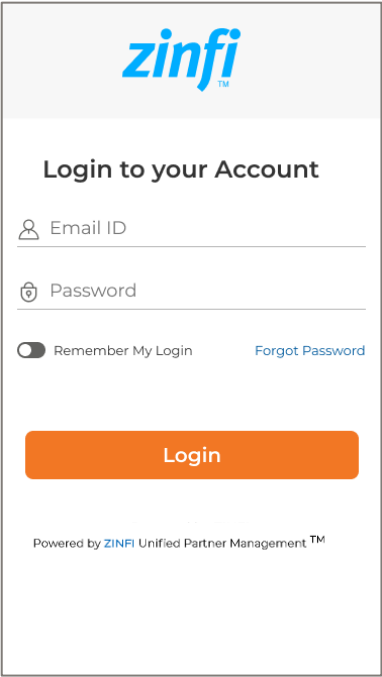
ZINFI Mobile App vs Custom Branded Mobile PWA

- App Icons

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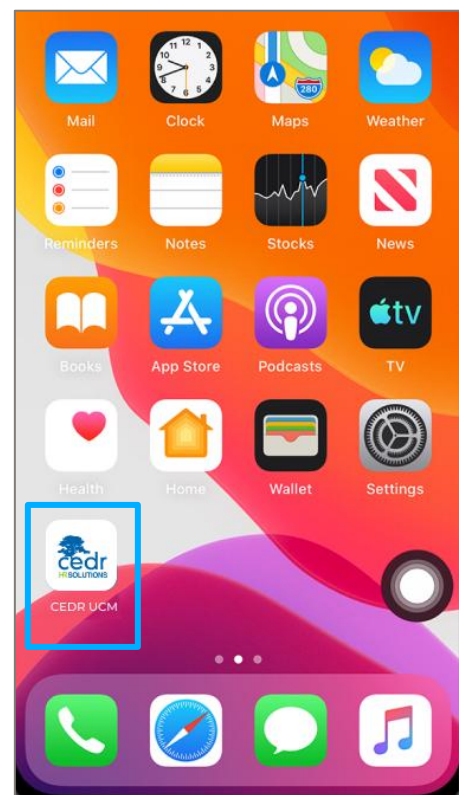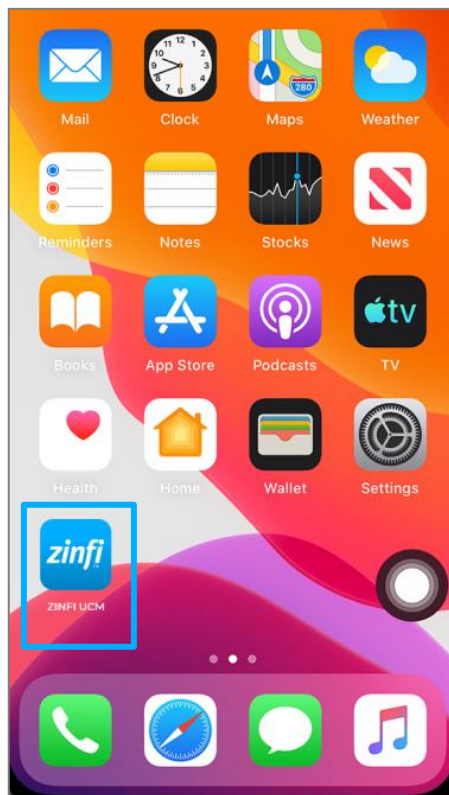
- App Home
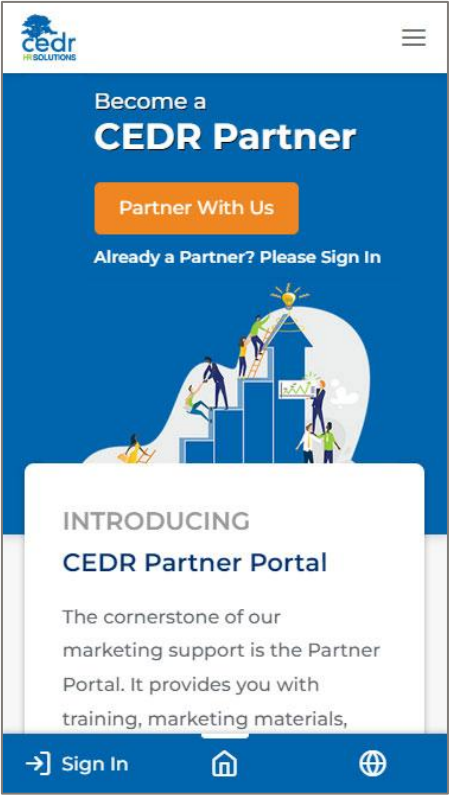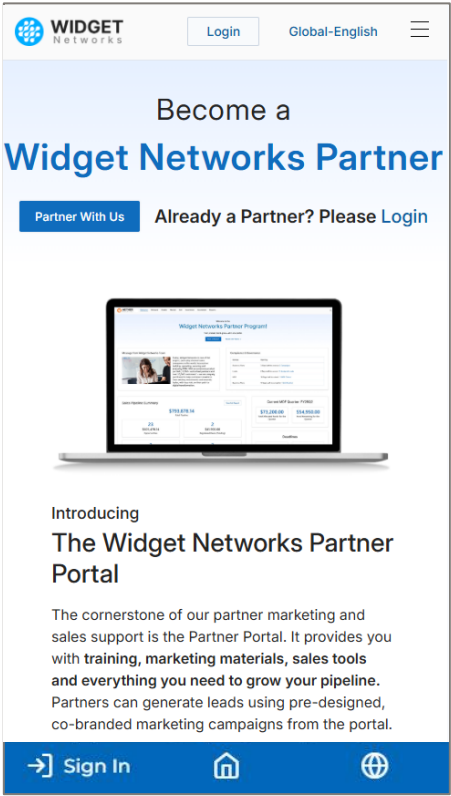
- App Login

App Store Submissions & Reviews

Before submitting the Mobile App for review by IOS App Store or Google Play Store, we need to make sure it's ready to be publicly released and that you're making the most of the Mobile App product page. We need to start by providing details about the Mobile App's content and entering information about the IOS/Google App/Play store listing – prior to uploading the App for review. Finally, we can move on to App release and create App awareness. The final step is launching the App on IOS Appl Store and Google Play, making it available to billions of users.

Note: The information provided would be utilized to display your App Product page in the IOS App/Google Play Store.

iOS App Store Information Requirements

App Information

Collecting all the information we need to submit before we start the process is critical.

Requirements	Notes
Screenshots	You need at least one for every supported device screen size. The screenshots cannot contain transparency. ZINFI will Provide.
Name	Name of the app as seen by users. Please Provide.
Promotional Text	Promotional text lets you inform your App Store visitors of current app features without requiring an updated submission. This text will appear above your description on the App Store for customers with devices running iOS 11 or later and macOS 10.13 or later. Optional. Please Provide.
Description	A description of your app detailing features and functionality. Please Provide.

What's New in This Version	Describe what's new in this version of your app, such as new features, improvements, and bug fixes. Optional. Please Provide.
Keywords	Separate keywords with a comma. Include one or more keywords that describe your app. Keywords make App Store search results more accurate. Please Provide.
Support URL	A URL with support information for your app. This URL will be visible on the App Store. Please Provide.
Marketing URL	A URL with marketing information about your app optional. Please Provide.
Version	The version number of the app you are adding. Numbering should follow software versioning conventions. Please Provide.
Privacy Policy URL	A URL containing your app's privacy policy optional. Please Provide.
App Icon	This icon will be used on the App Store and must be in the JPG or PNG format, with a minimum resolution of at least 72 DPI, and in the RGB color space. It must not contain layers or rounded corners. Please Provide.
Categories	The secondary category is optional. Please Provide.
Routing App Coverage File	Specify the geographic regions supported by your app. The file must be in the .geojson format and can only contain one MultiPolygon element. Optional. Please Provide.

Copyright	The name of the person or entity that owns the exclusive rights to your app, preceded by the year the rights were obtained (for example, "2008 Acme Inc."). Do not provide a URL.
	Please Provide.

App Review Information

Requirements	Notes
Sign-In Information	This is a username and password we can use to sign into your app so that we can review all its features. If users sign in using social media, provide information for an account we can use. Credentials must be valid and active for the duration of the review. Provide a username and password so we can sign in to your app. We'll need this to complete your app review. Please Provide.
Contact Information	The person in your organization who should be contacted if the App Review team has any questions or needs additional information. First name, Last name, Phone, Email. Please Provide.
Notes	Additional information about your app that can help during the review process. Include information that may be needed to test your app, such as app-specific settings. Optional. Please Provide.
Attachment	You can attach specific app documentation, demo videos, and other items to help prevent delays during the app review process. Make sure you use files with the following extensions: .pdf, .doc, .docx, .rtf, .pages, .xls, .xlsx, .numbers, .zip, .rar, .plist, .crash, .jpg, .png, .mp4, or .avi. Optional. Please Provide or can be provided afterward.

Version-Release	This app version can be automatically released right after it has been approved by App Review. You can also manually release it at a later date on the App Store Connect website or in [App Store Connect for iOS.](#) • Manually release this version • Automatically release this version • Automatically release this version after App Review, no earlier than Please Select One.
Phased Release for Automatic Updates	Phased release for automatic updates lets you gradually release this update over a 7-day period to users who have turned on automatic updates. Keep in mind that this version will still be available to all users as a manual update from the App Store. You can pause the phased release for up to 30 days or release this update to all users at any time. • Release update to all users immediately • Release update over 7-day period using phased release Please Select One.
Reset iOS Summary Rating.	When you release this version, you can reset your app's summary rating for all countries or regions. Keep in mind that once this version is released, you won't be able to restore the rating. Your app's existing customer reviews will still appear on the App Store. • Keep existing rating • Reset rating when this version is released Please Select One.

Pricing and Availability

Requirements	Notes
Price Schedule	Base Country or Region Please Provide. If Paid App, then contact us for further details. Inform ZINFI.

Availability	Select out of 175 countries or regions. Please Provide specific exclusions (if any). Can be Also Removed from Sale.
Tax Category	You're responsible for selecting and maintaining accurate tax categories and all applicable attributes for your apps and in-app purchases. "App Store Software" will be used as your tax category unless you select a different one. Please Provide.
iPhone and iPad Apps on Apple Silicon Macs	Starting with macOS Big Sur, compatible iPhone, and iPad apps can be made available on Apple silicon Macs. Apps will run natively and use the same frameworks, resources, and runtime environment as they do on iOS and iPadOS. Please Provide whether compatible with Apple Silicon Macs.
App Distribution Methods	Select how you want your app distributed to users. Once your app is approved, the distribution method cannot be changed. • Public — Discoverable by anyone on the App Store (default) • Private — Available as a custom app on Apple Business Manager or Apple School Manager Please Select One.

App Privacy

Requirements	Notes
Privacy Policy	**Privacy Policy URL** A URL that links to your privacy policy. A privacy policy is required for all apps. Please Provide. **User Privacy Choices URL(Optional)** A URL where users can modify and delete the data collected from the app or decide how their data is used and shared. Inform ZINFI.

Data Types	Data Collection
	Thanks for helping users understand your app's privacy practices. Remember that you're responsible for any third-party code that is added to your app, so if your third-party partners collect data from your app, you must represent that in your responses. Do you or your third-party partners collect data from this app? • Yes, we collect data from this app • No, we do not collect data from this app Please Select One and Provide Fields – if collected.
Contact Info.	Name, Email Address, Phone Number, Physical Address Please Provide.
iPhone and iPad Apps on Apple Silicon Macs	Starting with macOS Big Sur, compatible iPhone, and iPad apps can be made available on Apple silicon Macs. Apps will run natively and use the same frameworks, resources, and runtime environment as they do on iOS and iPadOS. Please Provide whether compatible with Apple Silicon Macs.
App Distribution Methods	Select how you want your app distributed to users. Once your app is approved, the distribution method cannot be changed. • Public — Discoverable by anyone on the App Store (default) • Private — Available as a custom app on Apple Business Manager or Apple School Manager Please Select One.

Other Information Needed

Apart from the above, the following information would be needed:

New App

Platforms ?
☐ iOS ☐ macOS ☐ tvOS

Name ?

[   ]
30

Primary Language ?

[Choose   ⌄]

Bundle ID ?

[Choose   ⌄]

Register a new bundle ID in Certificates, Identifiers & Profiles.

SKU ?

[   ]

User Access ?
○ Limited Access   ○ Full Access

[Cancel] [Create]

- **Supported Platforms** – Please Provide.
- **Name** – Please Provide.
- **Primary Language** – Please Provide.
- **Bundle ID** – ZINFI to Provide.
- **SKU** – Please Provide.
- **User Access** – Please Provide.

Note:

All the above information will be utilized for your Product Page at Apple Store. Visit https://developer.apple.com/app-store/product-page/ for more details.

Google Store Information Requirements

Set up your store listing and settings

Your app's store listing is displayed on Google Play and includes details that help users learn more about your app.

App Details

Field	Description	Character Limit	Notes
App name	Your app's name on Google Play. Please Provide.	50 character limit	You can add one localized name per language.
Short description	The first text users see when looking at your app's detail page on the Play Store app. Please Provide.	80 character limit	Users can expand this text to view your app's full description.
Full description	Your app's description on Google Play. Please Provide.	4000 character limit	
Default Language	The default language for your App. Please Provide.		
Free or Paid App	Specify whether your application is free or paid. Please Provide.		
Email Address	Add an email address that Play Store users can use to contact you about this application. Please Provide.		

Preview Assets

Adding preview assets that showcase your app's features and functionality on its store listing page can help your app attract new users on Google Play.

Feature graphics, screenshots, short descriptions, and videos are used to highlight and promote your app on Google Play and other Google promotional channels.

Requirements	Notes
App Icon	Your app icon is used in various locations on Google Play, including your store listing, search results, and top charts. Requirements: • 32-bit PNG (with alpha) • Dimensions: 512px by 512px • Maximum file size: 1024KB • Meets Google Play's icon design specifications • Do not include badges or text that suggest ranking, price, Google Play categories, or otherwise mislead users. For more information, see Metadata policy Please Provide.
Short description	Your short description is the first text users see when looking at your app's detail page on the Play Store app and can be expanded by users to view your app's full description. Your short description can appear in locations beyond your store listing, so any user should be able to use it to quickly understand the core purpose of your app. Requirements - 80-character limit Please Provide.
Feature Graphic	You must provide a feature graphic to publish your store listing. Your feature graphic is a powerful tool to convey app or game experiences and attract new users. Requirements • JPEG or 24-bit PNG (no alpha) • Dimensions: 1024px by 500px Please Provide.

Screenshots	Use screenshots to convey capabilities, the look and feel, and the experience of your app to potential users for better app discovery. You can add up to 8 screenshots for each supported device type. Supported device types include phones, tablets (7-inch and 10-inch), Android TVs, and Wear OS watches. ZINFI to Provide.
App Distribution Methods	Select how you want your app distributed to users. Once your app is approved, the distribution method cannot be changed. • Public — Discoverable by anyone on the App Store (default) • Private — Available as a custom app on Apple Business Manager or Apple School Manager Please Select One.

Languages and Translations

When you upload an app, the default language is English (United States, en-US). You can add translations of your app's information, along with in-language screenshots and other graphic assets.

If you don't add your own translations, users can view an automated translation of your app's Google Play store listing page using Google Translate or the default language for your app.

For automated translations, there will be a note explaining that the translation has been done automatically, along with an option to view the app's default language. Keep in mind that automated translations aren't supported for Armenian, Raeto-romance, Tagalog, and Zulu.

Please Inform ZINFI, if Auto Translation is not to be used. ZINFI will get back with further details.

Categorization and Tags

You can choose a category and add tags to your apps or game in Play Console. Categories and tags help users to search for and discover the most relevant apps in the Play Store.

Please Select from the Categories Listed.

Category	Examples
Art and Design	Sketchbooks, painter tools, art and design tools, coloring books
Auto and Vehicles	Auto shopping, auto insurance, auto price comparison, road safety, auto reviews and news
Beauty	Makeup tutorials, makeover tools, hair styling, beauty shopping, makeup simulators
Books and Reference	Book readers, reference books, textbooks, dictionaries, thesaurus, wikis
Business	Document editor/reader, package tracking, remote desktop, email management, job search
Comics	Comic players, comic titles
Communications	Messaging, chat/IM, dialers, address books, browsers, call management
Dating	Matchmaking, courtship, relationship building, meeting new people, finding love
Education	Exam preparations, study-aids, vocabulary, educational games, language learning
Entertainment	Streaming video, movies, TV, and interactive entertainment
Events	Concert tickets, sporting event tickets, ticket resales, movie tickets
Finance	Banking, payment, ATM finders, financial news, insurance, taxes, portfolio/trading, tip calculators
Food and Drink	Recipes, restaurants, food guides, wine tasting and discovery, beverage recipes

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Health and Fitness	Personal fitness, workout tracking, diet, and nutritional tips, health and safety
House and Home	House and apartment search, home improvement, interior decoration, mortgages, real estate
Libraries and Demo	Software libraries, technical demos
Lifestyle	Style guides, wedding and party planning, how-to guides
Maps and Navigation	Navigation tools, GPS, mapping, transit tools, public transportation
Medical	Drug and clinical references, calculators, handbooks for healthcare providers, medical journals, and news
Music and Audio	Music services, radios, music players
News and Magazines	Newspapers, news aggregators, magazines, blogging
Parenting	Pregnancy, infant care, and monitoring, childcare
Personalization	Wallpapers, live wallpapers, home screen, lock screen, ringtones
Photography	Cameras, photo editing tools, photo management, and sharing
Productivity	Notepad, to-do list, keyboard, printing, calendar, backup, calculator, conversion
Shopping	Online shopping, auctions, coupons, price comparison, grocery lists, product reviews
Social	Social networking, check-in
Sports	Sports news and commentary, score tracking, fantasy team management, game coverage

Tools	Tools for Android devices
Travel and Local	Trip booking tools, ride-sharing, taxis, city guides, local business information, trip management tools, tour booking
Video Players and Editors	Video players, video editors, media storage
Weather	Weather reports

Contact Details

When you provide an email address, website, or phone number for your app, your contact information is available to users on your app's store listing.

A contact email address is required, but to provide your users with the best support experience, we also highly recommend including a website where users can contact you.

Please Provide.

App Content

Start by providing some information about your app and setting up your Google Play store listing. Providing this information helps Google ensure that your app is safe for its intended users, complies with Google Play policies, and satisfies legal requirements.

Requirements	Notes
Privacy policy	Add your privacy policy to share how you treat sensitive user and device data. Document Format. Please Provide.
Ads	Declare whether or not your app contains ads. Please Provide.
Target audience and content	Provide details about your app's target audience and content. You must declare your app's target age group in between years, e.g., 18-60. It's essential to provide accurate

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	information about your app. Depending on the target audience selections that you make, your app may be subject to additional Google Play policies. Please Provide.

Additional Recommendations

To offer the best user experience, Google Play Store recommends that you provide the following:

- **Your name or the name of your organization**

- **Additional contact options:** In addition to an email address, you can also provide links to a website where users can contact you or a forum that you regularly monitor and use to respond to questions.

- **An FAQ or help content hosted on a website or blog:** Help content could include a summary of the app, instructions on basic functionality, and answers to common user questions.

- **Automated replies:** If you set up a contact form or support email address, it can be a good idea to include an automated reply that includes common answers to user questions and sets expectations for the level of support that your team provides.

- **Courteous communication:** When users understand how your app works and how to contact you with questions, they'll be more likely to use your app and provide feedback to help you improve your product. Don't respond in abusive, hateful, dismissive, threatening, or harassing ways.

ZINFI Pricing Details

The estimate for custom branded mobile app is provided below:

- One-time initial setup and related changes – 50 hours

- One-time initial app publish in Android and iOS – 25 hours

- One-time creation of separate codebase and related changes – 30 hours

- Recurring release: merge changes with Customer UPM Web App codebase, QA, and Publish process – 40 hours (Release can be managed by Supplier/Customer/OEM Team or ZINFI can be given access and we can do it for Supplier/Customer/OEM)

- Developer account creation in Google and Apple stores (needed to publish the app) – cost to be borne by Supplier/Customer/OEM