



RBM Creative Asset Recommendations with Apple's iOS Accommodations

Introduction

This document aims to provide clear recommendations to improve the Rich Business Messaging (RBM) experience across Android and iOS devices. We seek to bridge the differences between the Android implementation, which follows the Universal Profile (UP) 2.7 with additional Google-specific enhancements, and the Apple iOS implementation, currently based on UP 2.4 with proprietary Apple UI elements. The goal is to ensure a consistent, seamless user and business experience regardless of the device.

Note: Over the next month we expect Apple to adopt the new UP 3.0 and Google to follow, so further improvements and recommendations to this document will be made.

Context

While Google's recommendations have historically served as the reference point—especially when iOS support for RBM was unavailable—this document revisits those recommendations and suggests enhancements tailored to cross-platform consistency.

Testing

While these recommendations have been tested, we strongly encourage you to test your own campaigns across various devices, as renderings can vary—particularly among iOS devices with different screen types due to device variability and continuous updates and fixes being applied by Apple and Google.

The future

We anticipate Apple will address these issues starting in April 2025, though the specifics remain unclear. We will continue updating this document to align with the latest market developments.

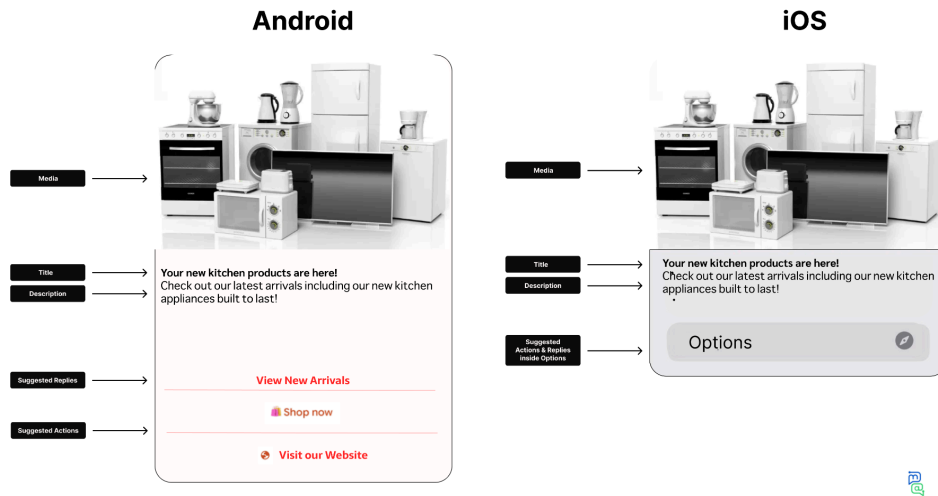
Reference Sources:

- [Google's Best Practices](#)
- [Google Specs](#)
- [Google's agent capabilities](#)

Format	Google's Guidance/Info	Recommended for both iOS & Android experience consistency)
Basic Message		
Message Copy	Title and Description, including the URL (URL will render an image in Android)	<p>Recommended if only sending one text message. Not recommended if you want to use links, there is a well known issue as iOS does not enable links as clickable.</p> <p>The workaround is to place the links at the end of the message, those are clickable and render images.</p> <p>A recommended alternative is using Rich Cards with the proposed text and a Single CTA button (Outcomes are much better when customers see buttons instead of clickable links)</p>
Text	Max 160 UTF-8	Special characters consume 2-4 UTF-8 characters; this behaviour is expected to be similar to actual SMS experiences.

Format	Google's Guidance/Info	Recommended for both iOS & Android experience consistency)
Sending and receiving Files		
Duration of files (includes Videos or Images on Rich Cards and Carousels)	<p>Google's RBM platform caches files for 60 days, and the API returns a file ID that your agent can include in messages to users. After 60 days, RBM removes files from the cache.</p> <p>Note: This is applicable to Rich Cards and Carousels too!</p>	<p>This behaviour only happens on Android, on iOS it is kept with the images.</p> <p>It is recommended that a new action is taken on the consumer side before those 60 days expire. This action must be defined on conversational logic. The goal is to ensure consumers get a good user experience and don't end up with an empty image and a unresponsive call to action</p>
Format	image, video, audio, or PDF need to provide a public accessible URL	The file can be only sent from the business to the user, not the other way around, although Google is working to improve the experience.

RICH CARDS FORMATS (Android and iOS)



Format	Google's Guidance/Info	Recommended for both iOS & Android experience consistency)
Rich Cards (Video and Image)	The maximum size of a rich card payload is 250 KB	.
Title	Max 200 Characters	Notice special characters, such as emoji or a multi-byte character set, count as 2–4 characters or more. On iOS it seems that it only supports a maximum 3 lines of text limiting the overall number of characters, to around 144. One alternative we have seen is to split the message in two with the text on one and the clickable buttons on the second message but this has implications in costs and the experience must be tested.
Description	Max 2000 Characters	
Media: If Image is used		
Image Size	Short media: 112 DP Medium media: 168 DP Tall media: 264 DP	Android DP does not map to iOS in terms of pixels, based on previous projects, we suggest Max 1500x1000 pixels, around 1.8 MB max and JPEG format (No GIF!)

	<p>Note: Android has their own specs for DP and that maps out to different pixels based on smartphones' resolutions.</p> <p>Note: Cards expand vertically to fit their contents. Rich cards have a minimum height of 112 DP and a maximum height of 344 DP. If the contents of a card are not large enough to fill the minimum card height, the card expands and fills the extra height with whitespace.</p> <p>Media in rich cards must fit one of three heights:</p> <ul style="list-style-type: none"> • Short: 112 DP • Medium: 168 DP • Tall: 264 DP <p>If the media doesn't fit the dimensions within the card given the selected height, the media preview is chosen by zooming and cropping the media.</p>	<p>Or follow Android recommendations to minimize display issues or images cut especially on iOS.</p> <p>Note: Check annex at the end of the document for pixel reference.</p>
Types	Vertical Rich Card and Horizontal	For consistency with iOS recommendation is Vertical Rich card using Horizontal media images
Payload	The maximum size of a rich card payload is 250 KB	Same for iOS, ensure you keep it under that payload.
Image types	<p>Supported image types:</p> <ul style="list-style-type: none"> • JPEG/JPG • GIF • PNG 	For iOS the recommendation is JPEG. GIF does not work for now (PNG can also be used)
Media: If Video is used		

Image Thumbnail	Provide hosted URL. Image can be vertical or horizontal	Recommended Horizontal media image for thumbnail consistency across devices
Thumbnail Image Specifications	Approximately 40 kB (max 100 kB as per Google Specs)	<p>Horizontal media, Better experience across devices will be 40Kb for the Thumbnail.</p> <p>Note in some cases for iOS, testing has been done where Thumbnails need to be bigger than 100Kb for the Video to play. Need to pay extra attention to this change in size needs</p>
Video Link	Provide hosted URL	<p>Note: We cannot track video plays in Rich Cards nor Carousels. The system tracks only if the message has been delivered and seen.</p> <p>To track engagement we will need to add a CTA (Action or Reply) and measure the click to the action or reply.</p> <p>One possible test is to include the video in a media server. But as content is cached in Google's servers for 60 days it is not sure that we can track back to the media server for every single user.</p>
Video Specifications and types	Can be Vertical or Horizontal Supported video types: <ul style="list-style-type: none"> • H.263 • M4V • MP4 • MPEG • MPEG-4 • WebM 	Horizontal media; recommended .MP4 (other video formats not supported); ~1500 x 1000 or ~1500 x 700 pixels; ~8 MB max
Audio Icon on Image		If a video is sent without audio it will display on iOS an icon with a muted speaker. This cannot be changed as it is part of Apple's UI. Instead, a video can be sent with audio but be mindful of the size limitations.
Call to Actions (CTAs)		

Suggested Actions and Replies		
Maximum CTAs	Up to 4	Recommended max 3
Types of CTAs	URL redirects, suggested actions (Calendar, App, Wallet, Maps), suggested replies (recommended for simple responses like YES/NO)	<p>On iOS, Suggested Replies and Suggested Actions are displayed differently:</p> <ul style="list-style-type: none"> • Replies appear as a list. • Actions are grouped in a dropdown button labeled "Options" if multiple exist, or as a single button if only one is available. <p>Optimizing the Experience:</p> <ul style="list-style-type: none"> • If multiple options exist, prioritize displaying Replies first, followed by Actions. • Ideally, limit Actions to a single visible option when possible. <p>Alternative Approach:</p> <p>Using Chips could ensure all actions remain visible. However, this may cause issues, as Chips disappear for both Android and iOS</p>
CTA Button Copy	Clear, concise, action-oriented	Max 25 characters
CTA Links	Full link with UTM parameters (utm_source, utm_medium, utm_campaign, utm_content) For each suggested action, you can optionally provide a fallback URL (maximum 2048 characters). This URL will open in a new browser window if the user's device doesn't support the suggested action.	<p>If the link is not an action on the device (eg: location, calendar, wallet. in-app) it will open a Webpage. Also some of these actions (eg: Wallet are only supported on Android)</p> <p>Note: Google is rolling WebView in Google Messages and this is coming progressively during Q2</p>

		<p>We are confirming if WebView is available on iOS and how it can be triggered.</p> <p>Once Webview is available on Android it can be open in Full, Half or Tall modes</p>
Actions	<p>Wallet</p> <p>Calendar</p> <p>Location</p> <p>Dial</p>	<p>Wallet is not supported on iOS</p> <p>Supported on iOS</p> <p>Partially supported on iOS: Request location is not available but sharing location is</p> <p>Supported on both OS</p>

Format	Google's Guidance/Info	Recommended for both iOS & Android experience consistency)
Carousel		
Max Number of Rich Cards	10	3-4
Title	Max 200 characters per card	
Description	Max 2000 characters per card	A message on iOS will be limited to three lines as in Rich Cards. Be mindful of the content.
Rich Card Content	Can be Images or Video	Images recommended
CTAs (Actions or Replies)	Each Suggestion has a max of 25 characters	Be mindful of the behavior on iOS for Suggested Actions (Options Dropdown button) and Replies (List of clickable actions) that can be combined
Post Back Data	Used in the JSON format to track user interactions eg: to take actions based if the user clicked the action the first time or the second. This is also used for analytics	The same is applicable to iOS.
Payload	Max payload is 2048 characters. That includes Post back data and other elements	Be mindful of the total size because this has negative effects on the way the Carousel is displayed
Height	592 DP (≈1,776 pixels for xx hdpi devices)	For image must be .jpeg (GIF not supported); Max 1500 x 1000 or 1500 x 700 pixels; No more than 1.8Mb

Width (Small)	120 DP (≈360 px)	Horizontal media; recommended .MP4 (other video formats not supported); ~1500 x 1000 or ~1500 x 700 pixels; ~8 MB max Note: This can change as Apple makes updates to the RBM experience in iOS Check the annex at the end of this document.
Width (Medium)	232 DP (≈696 px)	

Format	Google's Guidance/Info	Recommended for both iOS & Android experience consistency)
Chips (Or Buttons)		
Max number of chips and User Interface	11 shows horizontal on Android and Vertical (like a list) on iOS	3 For iOS 5 seems to be the right number as it shows as a vertical list but bear in mind that Android will display a horizontal list and most of the chips will be hidden until the user slides over them Both chips on Android and iOS disappear after being clicked
Text	Clear, action-oriented, can be longer than Rich Card or Carousel	Max 25 characters
Appear/Disappearance	Chips disappear once a new message arrives or a user clicks the chip with the action.	Recommended only when a user is expected to click on an action, otherwise is better to keep the actions under a Rich Card or carousel where actions or replies do not expire.

Format	Google's Guidance/Info	Recommended for both iOS & Android experience consistency)
Agent Message		
This is the typical message an agent can	Maximum 3072 characters	

send on a conversational response		
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Format	Google's Guidance/Info	Recommended for both iOS & Android experience consistency)
Compose Messages		
This is a new function that will be rolled out where a user can compose content and send to a business	<p>Formats can be a prefilled message, an audio or a video and send it over the channel.</p> <ul style="list-style-type: none"> • Compose a text message: Opens the messaging app with prefilled text for the user to send. • Compose an audio message: Opens the messaging app and launches the microphone so the user can record audio. • Compose a video message: Opens the messaging app and launches the camera so the user can record a video. 	TBD when available on Android, unconfirmed for iOS

Format	Google's Guidance/Info	Recommended for both iOS & Android experience consistency)
Message Expiration		
It allows to specify if a message can be expired and revoked	<p>If your agent's message time sensitive, for example, OTPs are only valid for a brief period. Limited-time offers expire. And appointment reminders aren't relevant after the appointment date. To help ensure timely and relevant messages, set a message expiration. This can prevent offline users from receiving stale content when they come back online. Expiration is also a good cue to invoke your fallback</p>	<p>Recommended when a message is time sensitive or has not been delivered to the end user and you want to take action over another channel like SMS.</p> <p>Once the message expires, the RBM platform stops trying to deliver the message, and it's automatically revoked. You can also revoke the message that waited beyond the expected time to be delivered.</p>



	messaging strategy so users get the info they need on time.	Note: RBM deletes any undelivered messages 30 days after they were submitted.
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Annex:

Conversion of DP to PX for Android and iOS

Formula for Conversion:

$$px = dp \times (DPI / 160)$$

For Android:

Density	Short (112 dp)	Medium (168 dp)	Tall (264 dp)
mdpi (160 DPI)	112 px	168 px	264 px
hdpi (240 DPI)	168 px	252 px	396 px
xhdpi (320 DPI)	224 px	336 px	528 px
xxhdpi (480 DPI)	336 px	504 px	792 px
xxxhdpi (640 DPI)	448 px	672 px	1056 px

For iOS:

Apple devices use points (pt) instead of dp, but the conversion is similar. iOS screens typically have @1x (Standard - 163 PPI), @2x (Retina - 326 PPI), and @3x (Super Retina - 458 PPI).

Density	Short (112 dp)	Medium (168 dp)	Tall (264 dp)
@1x (163 PPI)	112 px	168 px	264 px
@2x (326 PPI)	228 px	342 px	537 px
@3x (458 PPI)	321 px	482 px	757 px

Summary:

- For Android, the px values are consistent across multiple densities.
- For iOS, the px values vary depending on the @1x, @2x, or @3x Retina display.

This document provides a reference for media sizing across different device densities for both Android and iOS platforms.