

• What is mobile wallet?

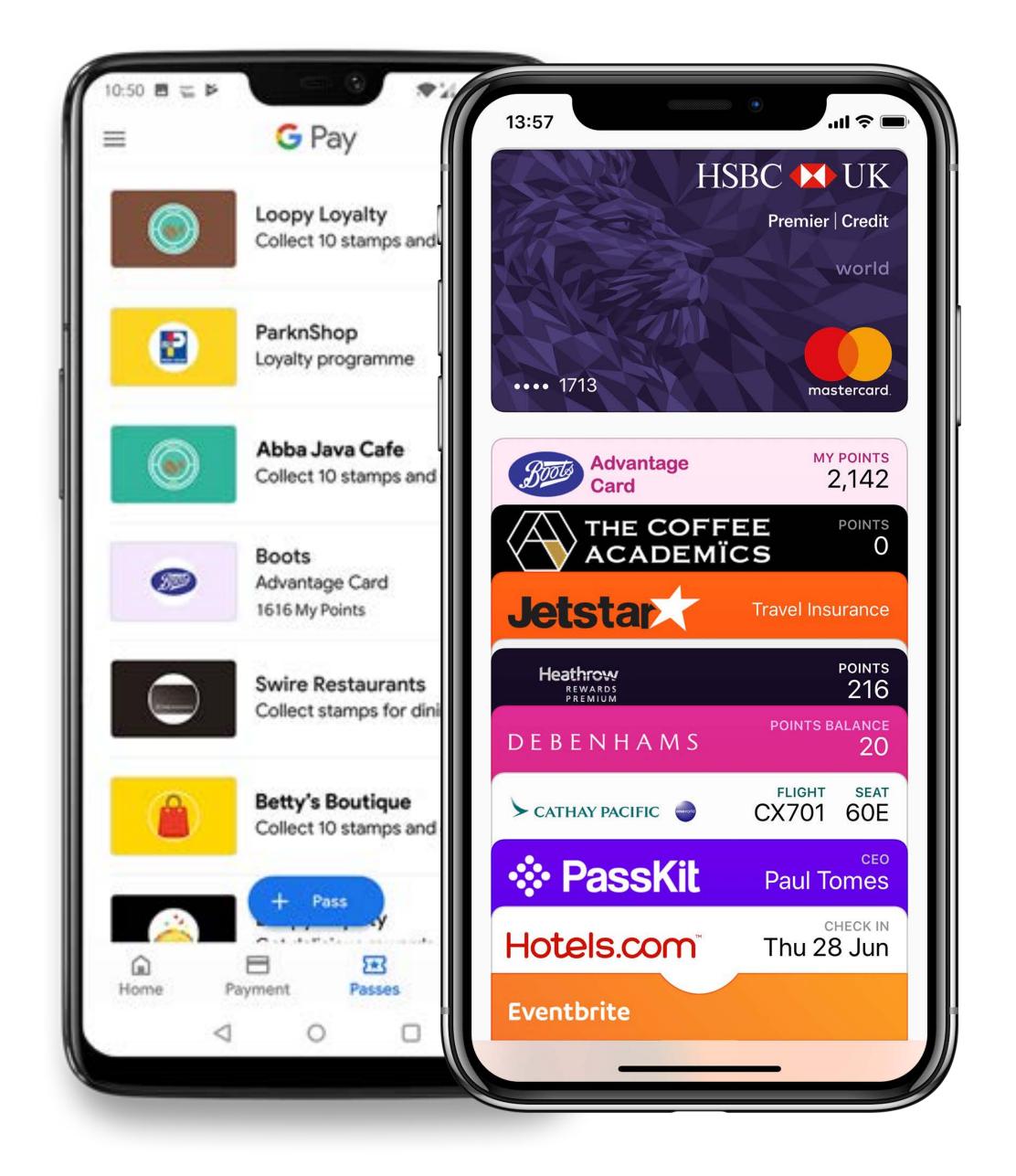
Mobile Wallet Introduction

A mobile wallet is the digital equivalent of a physical wallet. A place to store, organise and access a digital version of - payment and non payment items* - on their mobile device. It keeps credit cards, loyalty cards, coupons, stored value cards, membership cards, tickets, and more all in one place.

Unlike physical wallet content, a pass* can be updated at any time (e.g. points balance). A pass can also remind a customer where and when is the right or best time to use it (e.g. a coupon).

Mobile Wallet provide the next level of customer convenience, while also delivering operational efficiencies.

* non payment content stored in mobile wallet applications are referred to as 'Passes'





Mobile Wallet Landscape

Your mobile wallet is an app that comes pre-installed (native) on most mobile devices. On iPhone it's called Apple Wallet, on Android it's called Google Pay

Apple Wallet and Google Pay are becoming the trusted, preferred central hub for mobile payments, loyalty, coupons, ticketing and more.

Both Apple and Google refer to the same core functionality; a place to store and use a digital version of something you used to have to deal with in paper or plastic.



Apple Wallet
Available
Globally
>1 billion

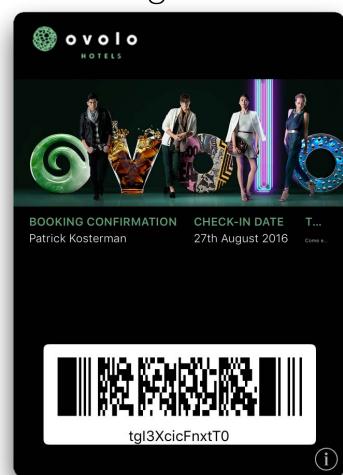


Google Pay
22 countries
>150 million



Pass Examples

Booking Confirms





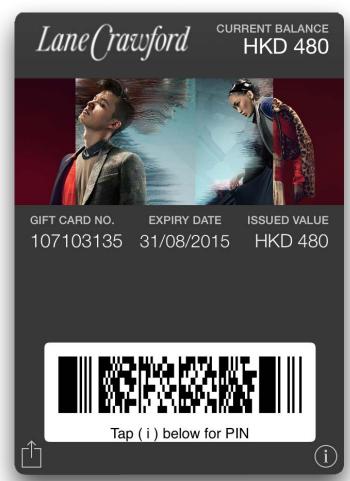
Gift Vouchers

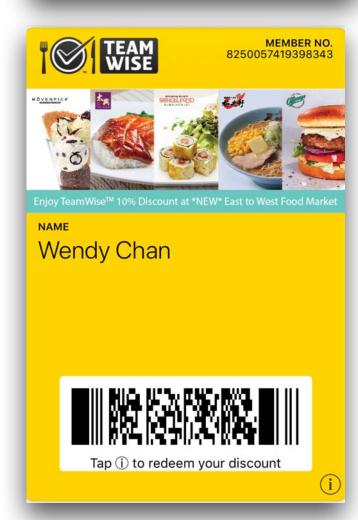
Coupons Valid Expiry Date 27/12/2017 HK\$500 Gift Voucher NAME Paul Tomes Tap i for Terms Serial No. 8520500013078



Stored Value Cards

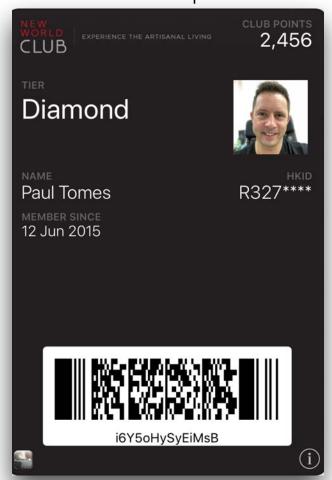
Gift Cards





Discount Cards

Membership Cards





Event Tickets

Business Cards

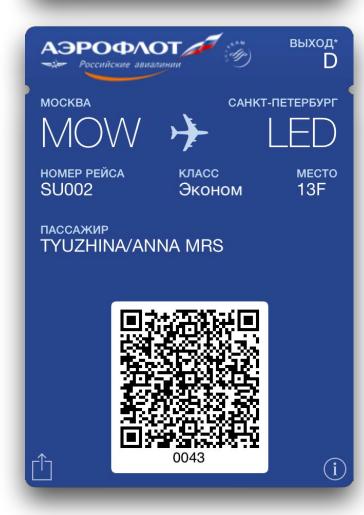




Stamp Cards

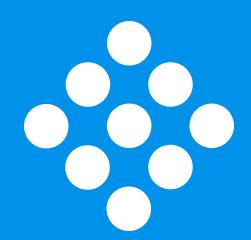
Insurance Policies



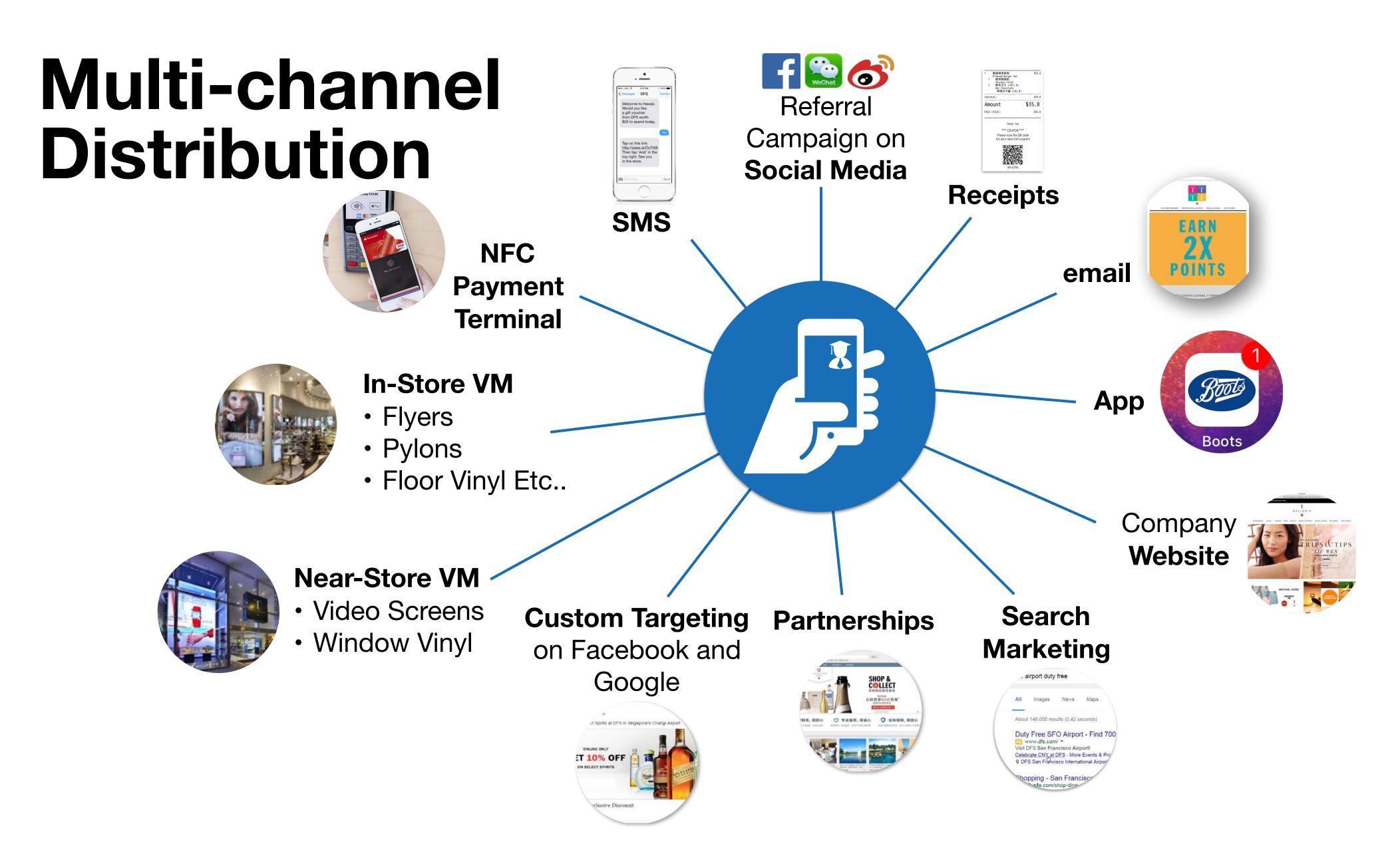


Boarding Passes





PassKit Pass features



Multi touch promotion and distribution campaign for Consideration, In-Market and In-Store acquisition



QR Code Distribution

A business does not need an app. And even if an app is available, the customer does not have to have their app installed on their device.

Customers can:

- Scan a QR code (near or in-store)
- Tap a link on a website
- Tap a link on social media pages
- Tap a link in an online ad
- Receive an email or SMS

The example shown is a customer receiving a coupon on their printed receipt and then adding their pass to their wallet.

QR code and short link on receipt



Scan the QR code or enter short link in browser



Coupon (or loyalty card or ticket etc..) shown instantly *



Single tap to add to mobile wallet app



Pass dynamically updates after use or after a certain time







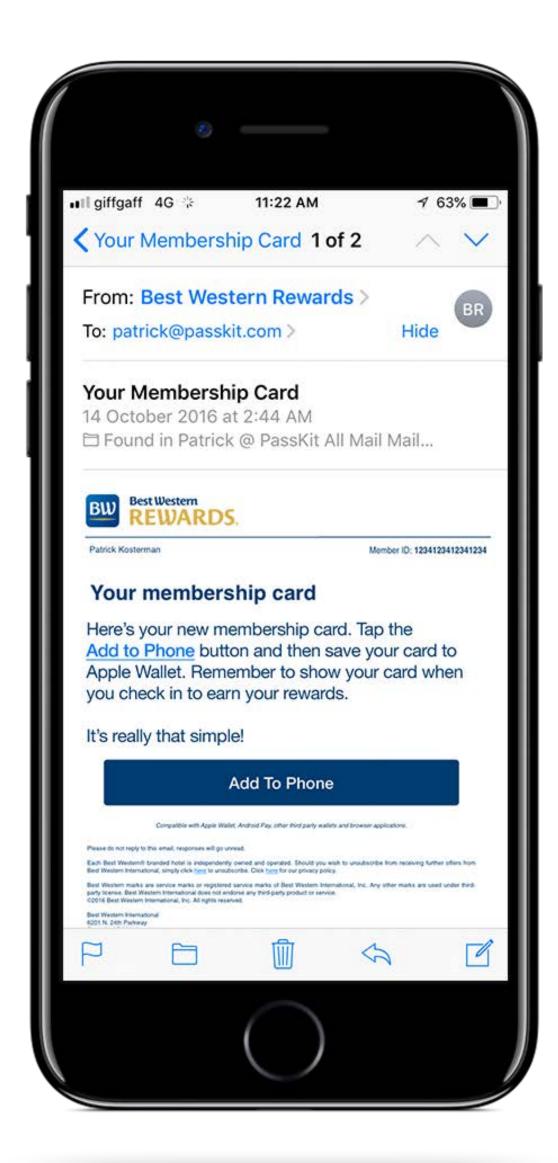
Email Distribution

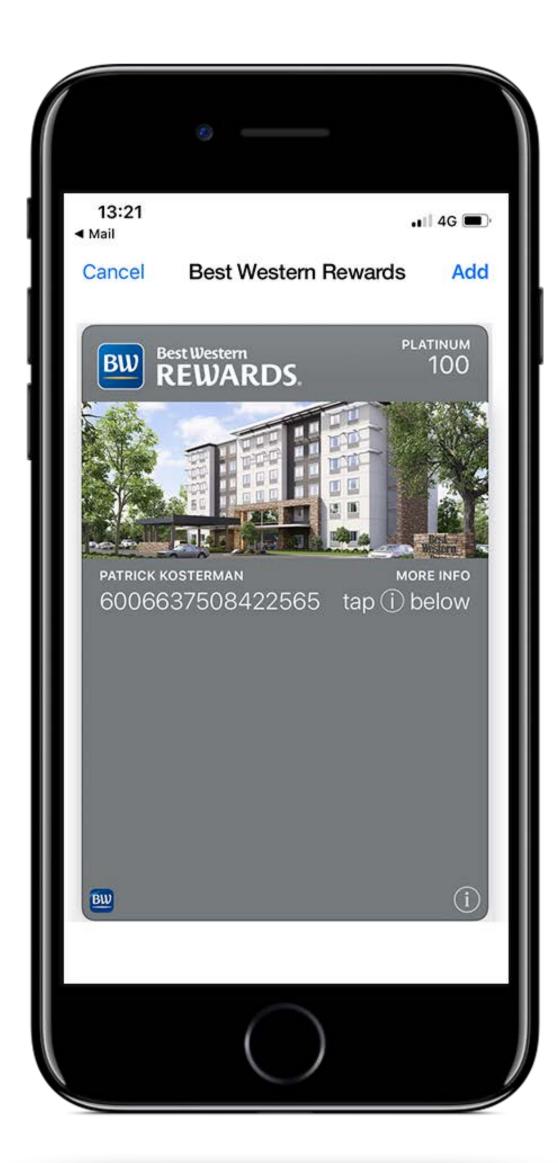
A business does not need an app. And even if an app is available, the customer does not have to have their app installed on their device.

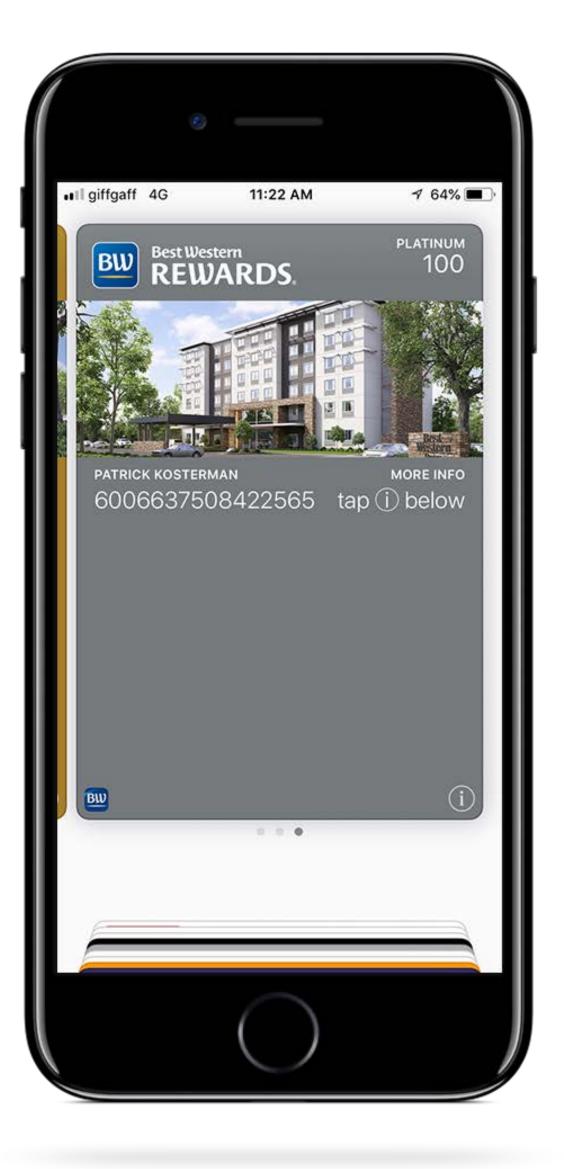
Customers can:

- Scan a QR code (near or in-store)
- Tap a link on a website
- Tap a link on social media pages
- Tap a link in an online ad
- Receive an email or SMS

The example shown is a customer receiving an email and then adding their pass to their wallet.







The easiest way to get your brand inside your customers' smartphone.



Distribution Via App



From within an iOS app the pass will load into Apple Wallet automatically.



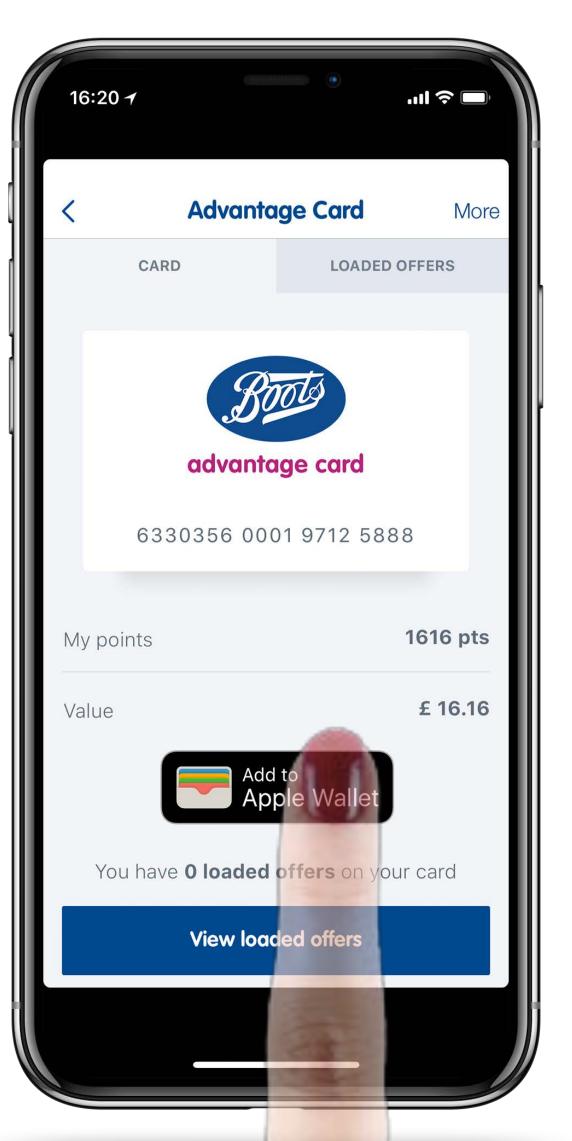
From within an Android app the pass will load automatically into Google Pay.

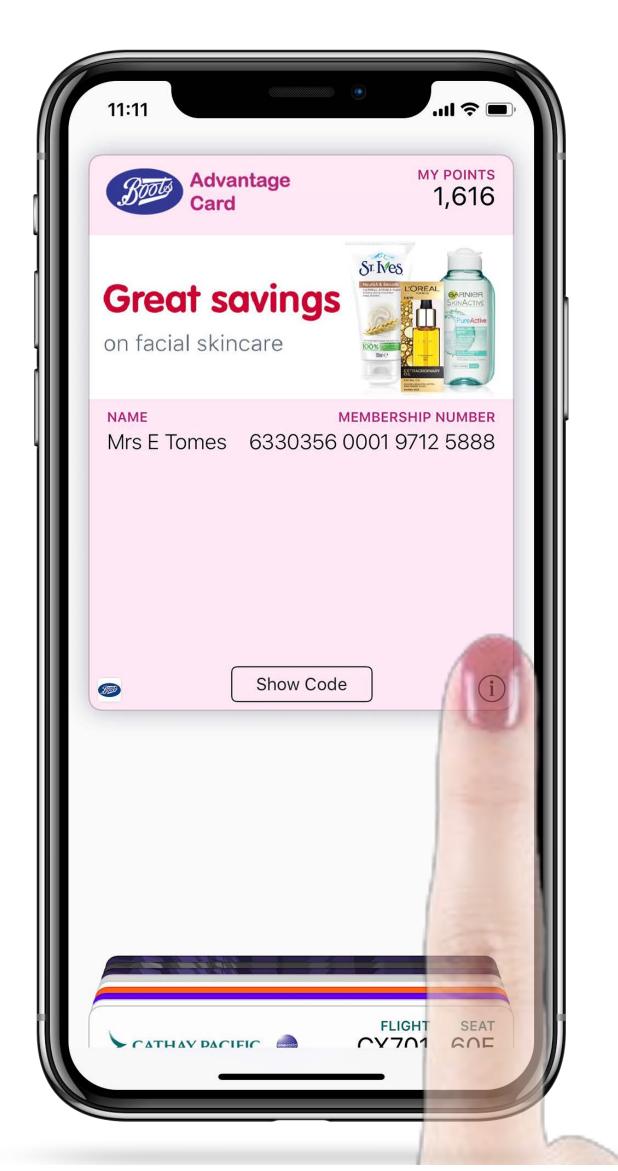
If customer is not already logged into their Google account then they will be asked to log in, prior to card loading to Google Pay.

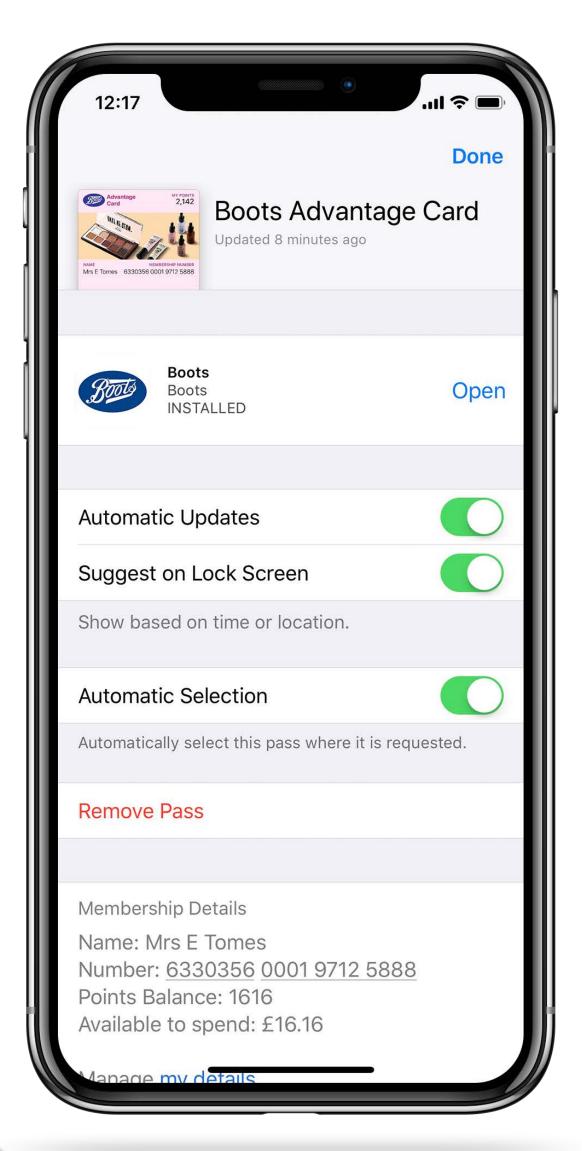
If Google Pay is not installed then customer will be directed to Google Play, assuming they have an address in a Google Pay territory.



Once installed, passes can deep link into a specific location in the merchant app.







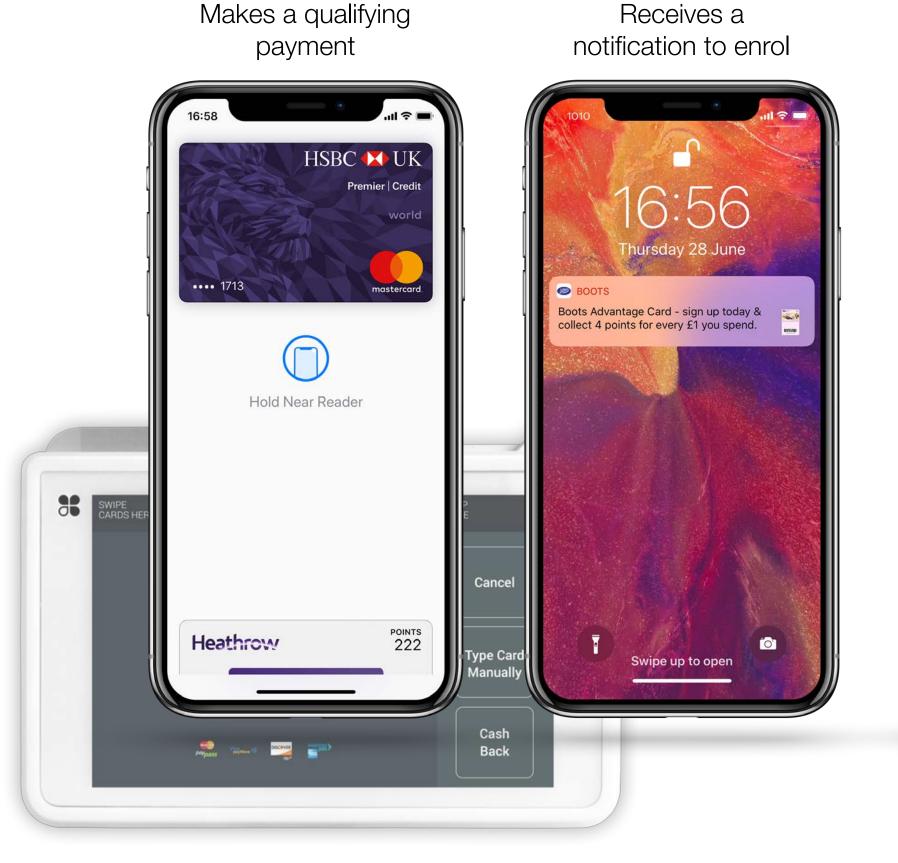
Seamless integration between the an application and Mobile Wallet application.



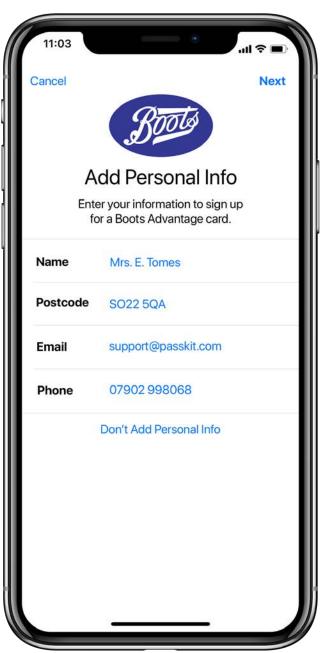
NFC Pay Distribution

If terminals support the Apple VAS and Google SmartTap protocol, PassKit can automatically push an enrolment request for Apple Pay and Google Pay users that do not yet have the card installed.

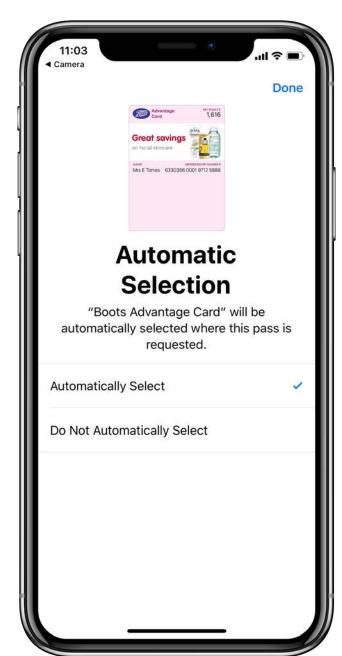
This request can be to install an existing card or enrol as a new member (depending on whether a membership card was already presented during the purchase transaction).



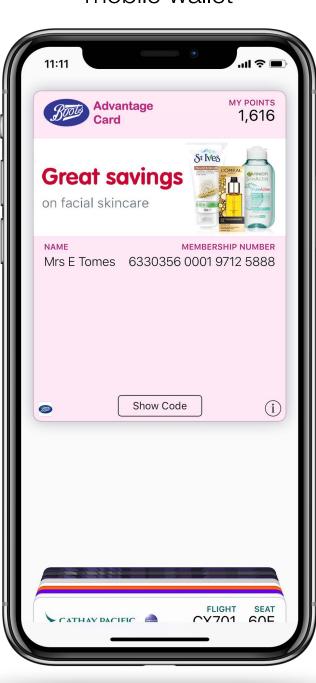
Enrolment information is pre-filled



Automatically select this card for future visits



Pass is now stored in mobile wallet







Delivered Instantly

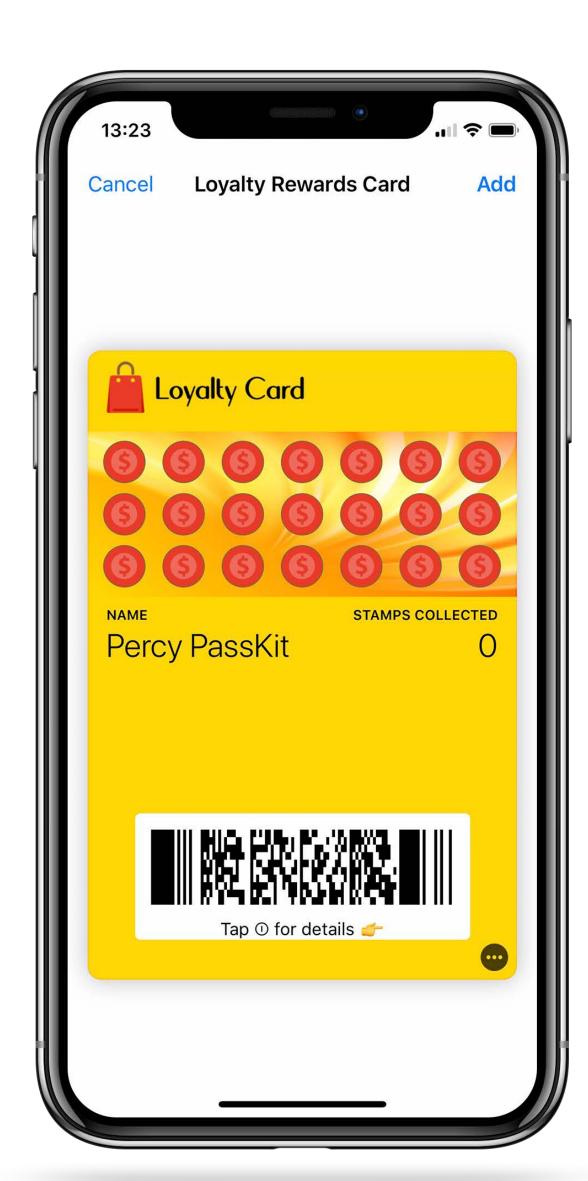
The pass is instantly generated and appears immediately in the customer's phone. With a single tap the pass can be saved to the customer's mobile wallet application.

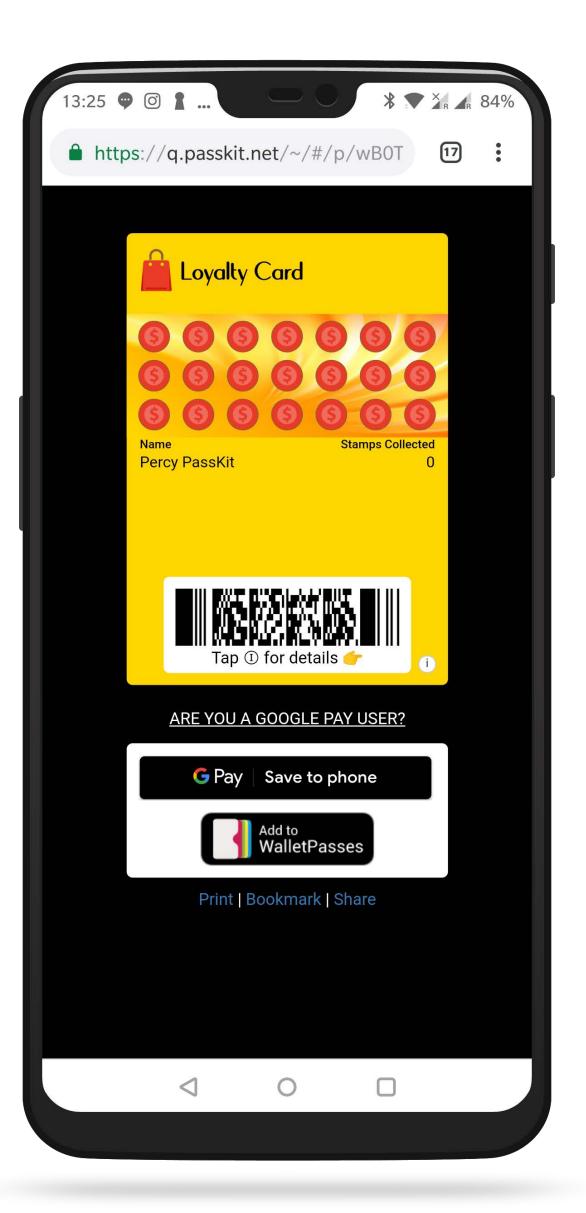
It is also possible to collect data using PassKit's automated landing page, prior to generating a pass.

This allows a pass to be personalised and to collect customer data, to further augment your CRM.

Visit the following link on your smartphone for an example experience:

bit.ly/passdatademo





No more waiting for tickets, coupons, or loyalty cards to arrive in the post.



Automatic Device Detection

PassKit automatically generates and displays the correct pass format depending on the smartphone the customer is using.

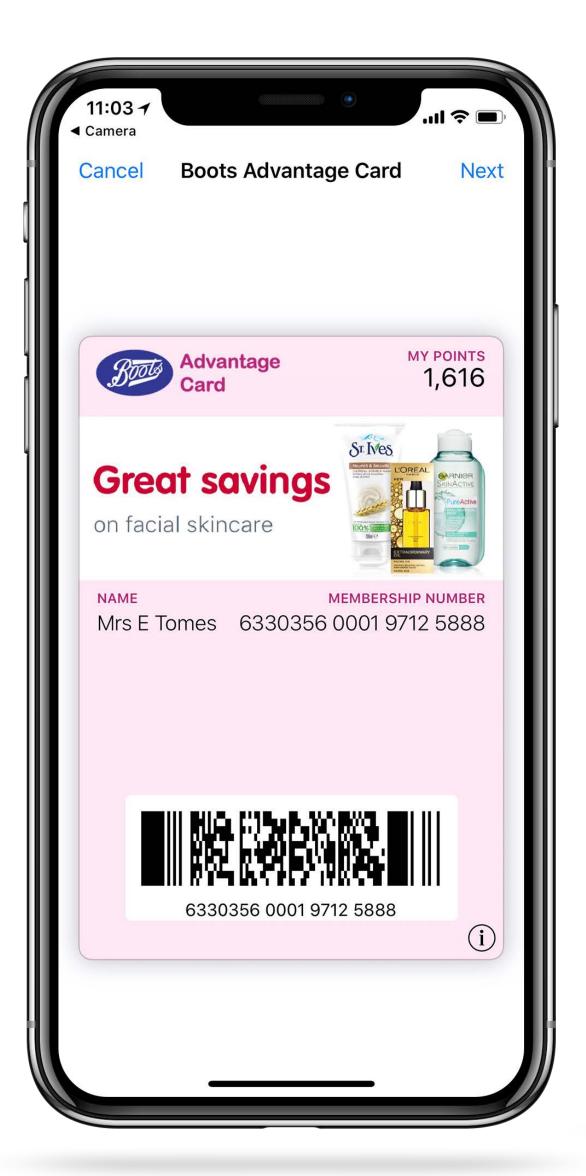
If an Android user does not have Google Pay installed already they will be prompted to install the app first and then card will be loaded in Google Pay.

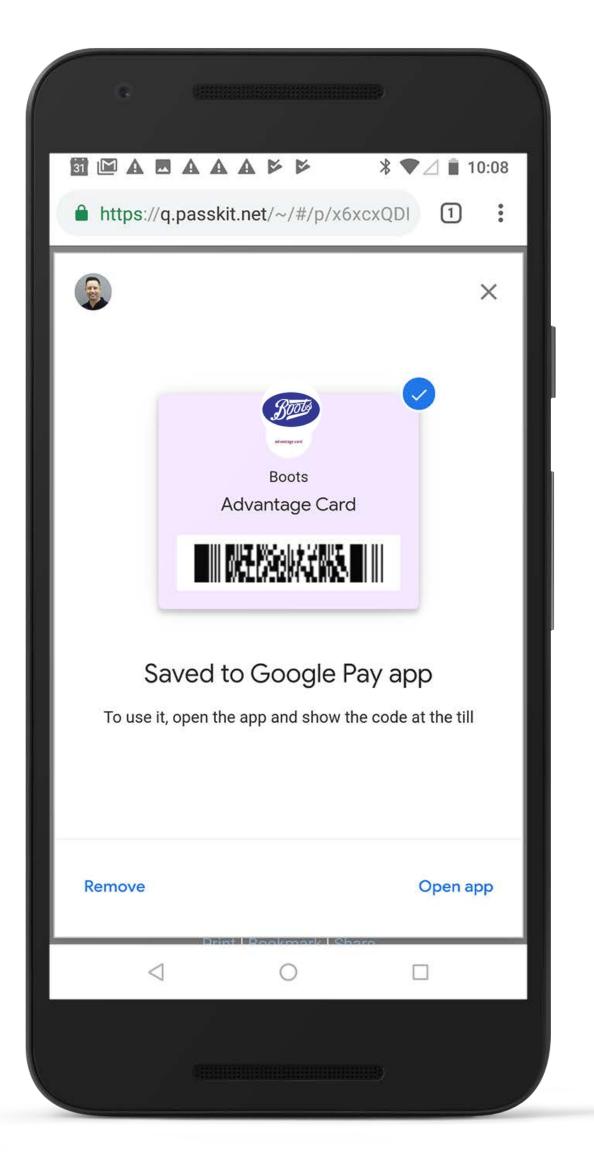
If the Android user already has Google Pay installed then they can save to Google Pay with one tap.

Note: Google Pay is only supported on Android devices running Lollipop (5.0) or higher

For Android customers with a residential address outside of the Google Pay coverage areas (currently 22 countries) the customer will be presented with PassKit's wallet fallback (wallet app or browser fallback).

PassKit also detects if a customers clicks on a PassKit Pass link from a desktop computer and will present the customer with a number of options to get the Pass into their smartphone mobile wallet.





Customers can save their digitised card whatever smartphone device they own.



Location Based Reminders

Once a pass is installed the customer can receive a lock screen notification when in proximity to the relevant location.

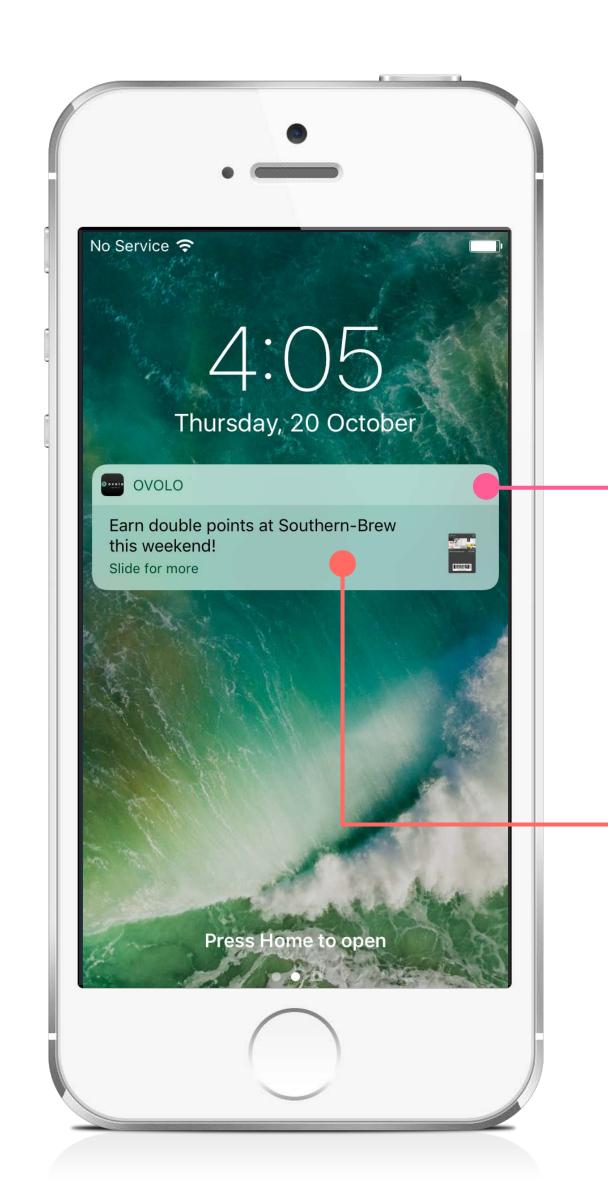
Note: A maximum of 10 GPS locations and 10 Beacon UUIDs can be encoded into an Apple Wallet Pass (this is an Apple Wallet constraint).

But the 10 locations do not need to be the same locations for all Passes. i.e each Pass can contain 10 different locations that are most relevant for that pass holder (customer)

Google Pay Passes can contain unlimited number of locations (GPS only).

PassKit can also provides beacon hardware, but PassKit passes are compatible with any beacon hardware providers.

A tap or swipe will take the user straight to the pass. 1:53 No need to unlock the phone or find Monday, 26 September the wallet app PUBLIC Lunch is only 2 minutes away! The set lunch at PUBLIC is Thai Pomelo Salad and Grilled Berkshire Pork Chop. Press Home to unloc



Remind customers of their loyalty card or coupon and entice customers into your store when they are nearby.

Unlimited space for location based text via GPS and beacons.

Messages appear on the lock screen when in proximity to points of interest.



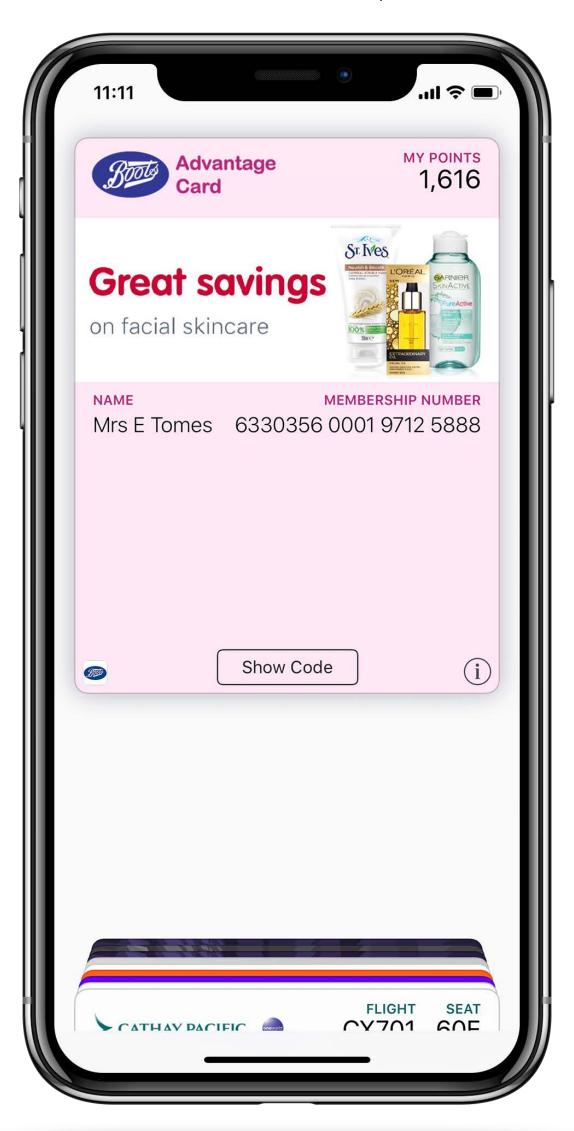
Upon a transaction, or any action (e.g. referrals, sharing, feedback), the pass is instantly and automatically updated.

Any field or image can be updated. For example, a points balance can be updated, a coupon can be redeemed, or even an image can be updated to promote other relevant products & services.

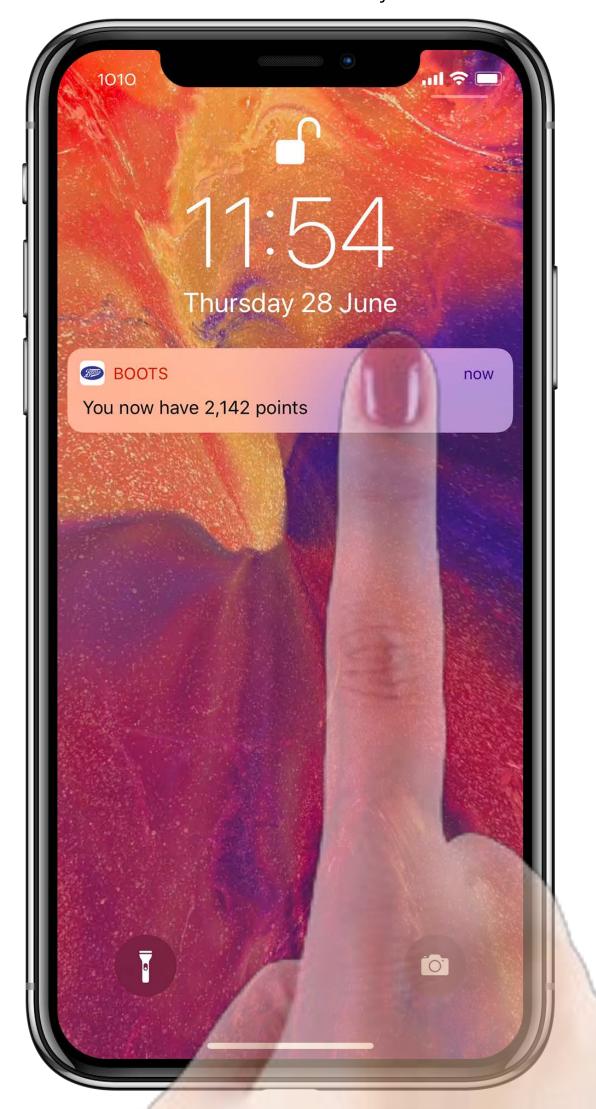
If the customer is not connected to the internet at the point of transaction, the pass will be updated as soon as the customer connects to the internet.

A lock screen message can be delivered to confirm / advise of the the update or the pass can be 'silently updated' so the customer does not receive a lock screen message.

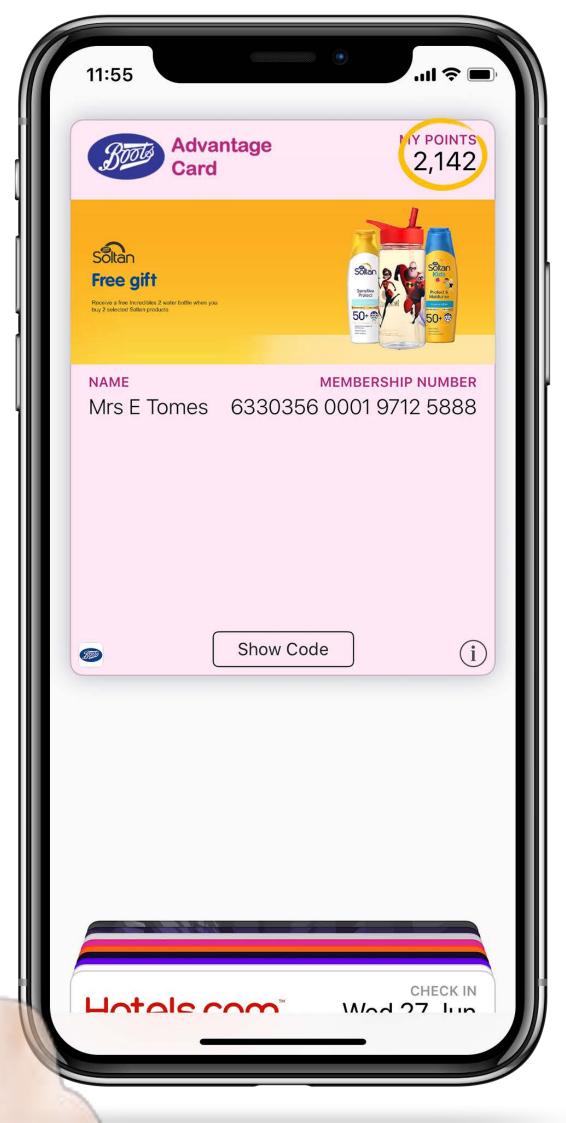
Customer uses their pass



Lock-screen notification delivered instantly

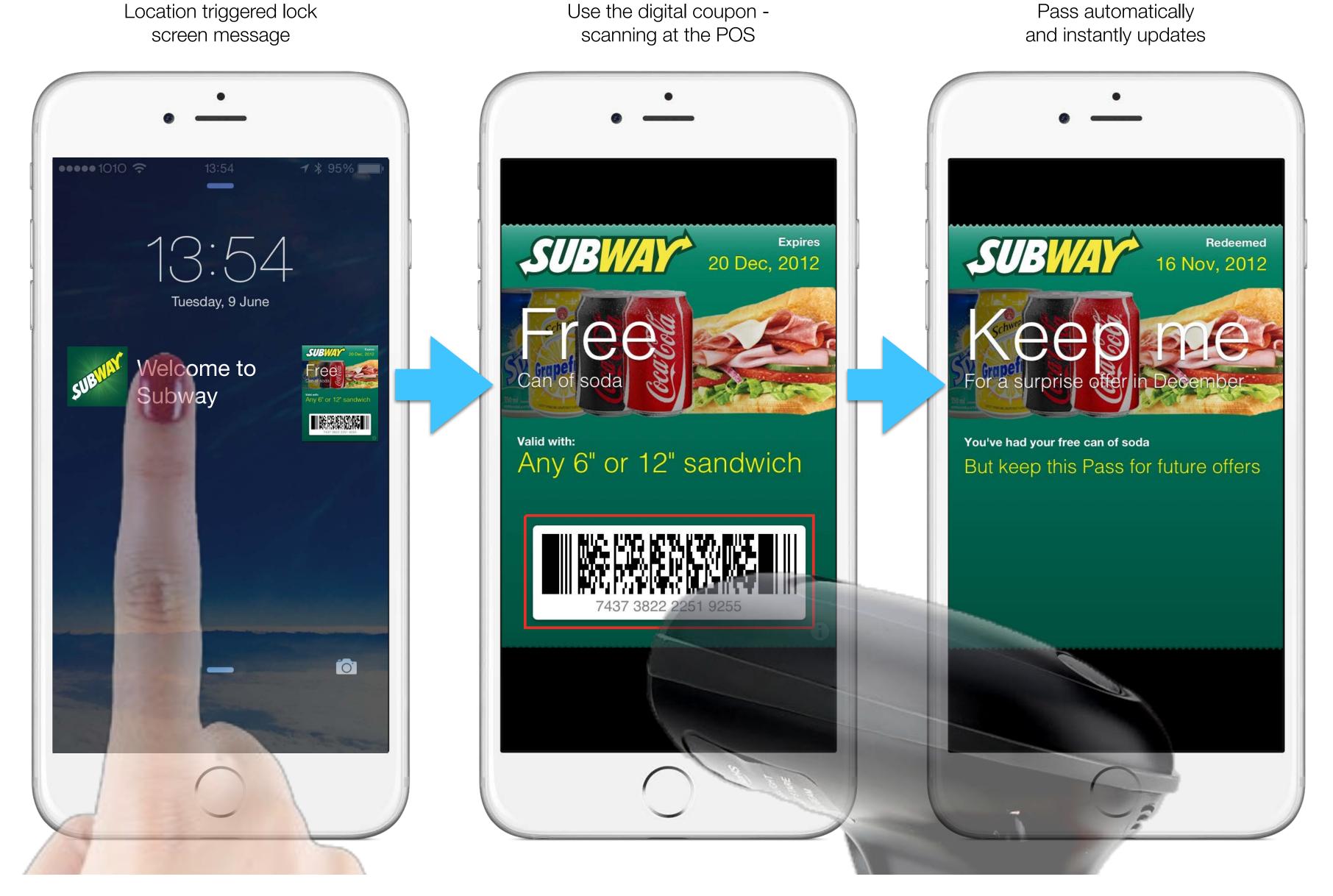


Card is updated. Note: the image/promotion can also be updated at the same time



Following a transaction, the pass dynamically updates. Any field and/or image can be updated.





Once a customer uses the coupon, the pass can automatically update to another offer.











The "forever coupon" reduces promotion costs and increases store visits.



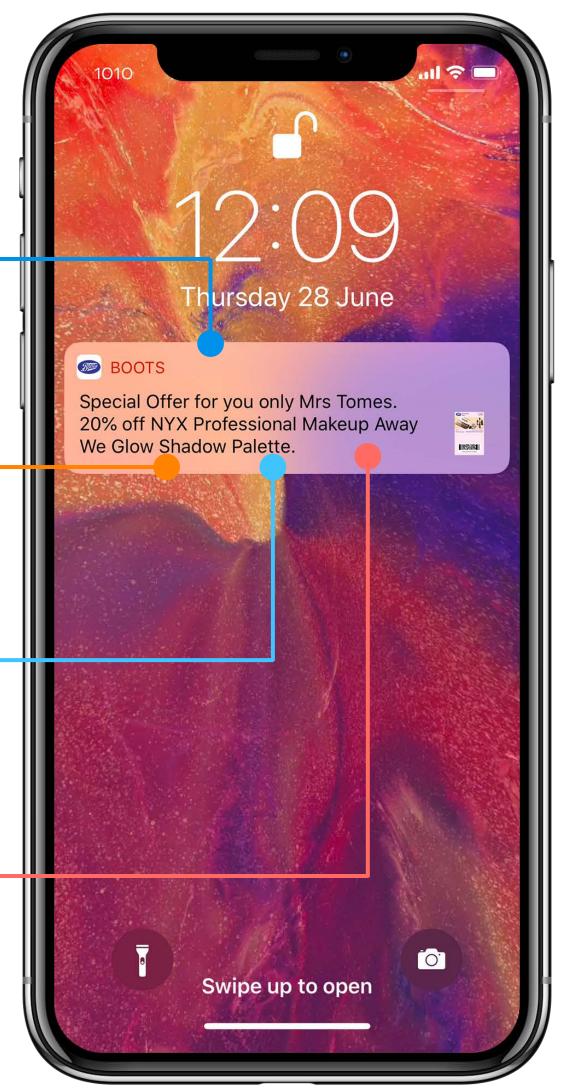
Personalised Experiences

PassKit can deliver lock screen messages and updated pass content (e.g. images, links to offers) to:

- all pass holders
- segmentations
- individuals

This means a customer can have a completely unique pass, and experience, depending on their preferences and behaviours.

Notify customers of personalised updates and offers Notify VIP members of upcoming events. Inform customers if they have points or vouchers that are soon to expire. Length of lock screen message from dynamic push may be cut off based. on screen size.



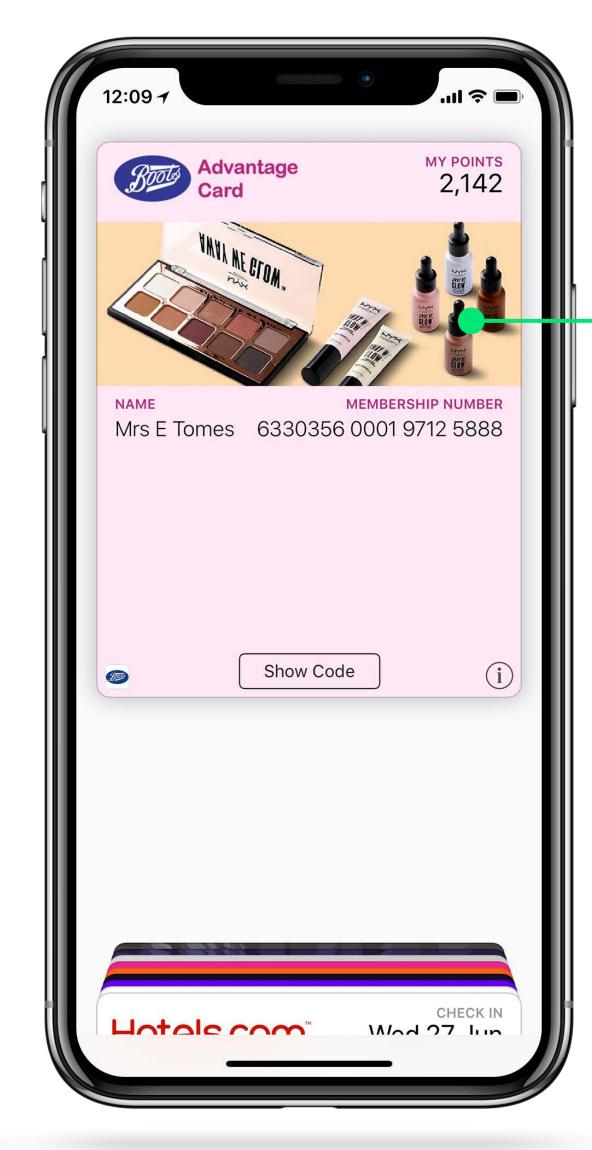


Image can be updated on the pass at any time to align with personalised offers or brand promotion*

Deliver personalised messages and pass content based on customer segments, demographic, preferences, and behaviours.

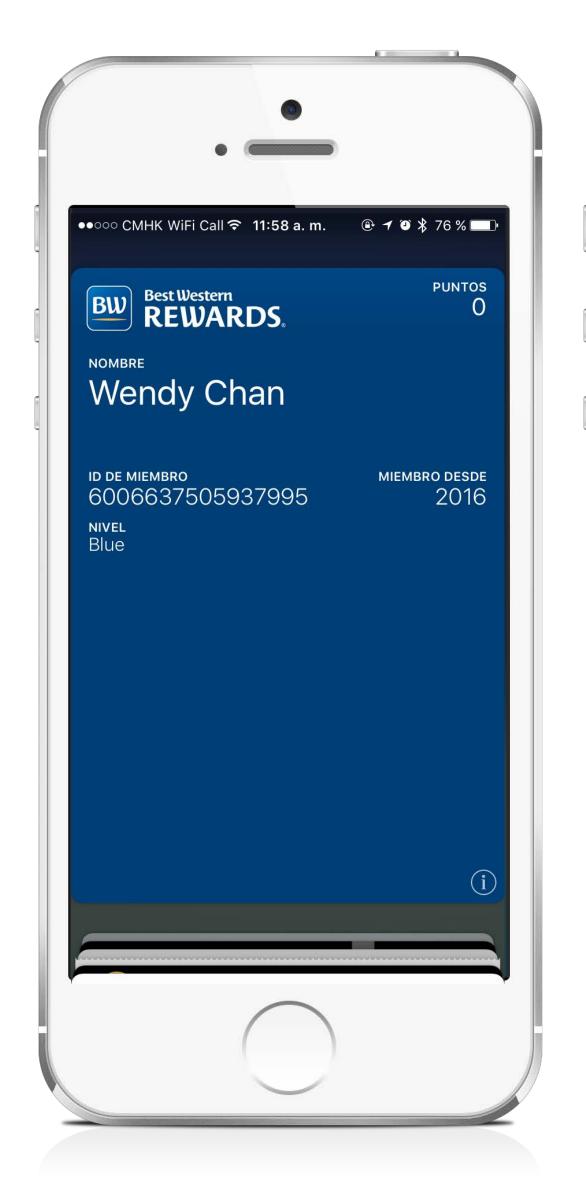


Multilanguage

If the language file is available, the phone will present the pass in the end users chosen language.

Images and logos can also be customised based on language.

Note: A maximum of 35 languages can be embedded in a pass template.









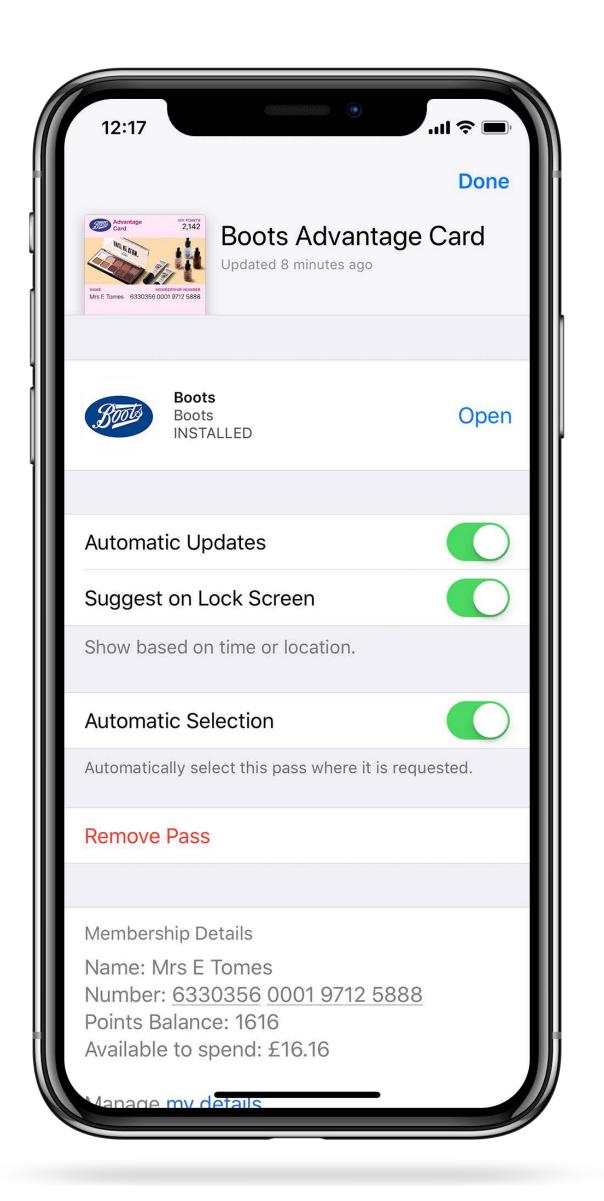
Connected Content

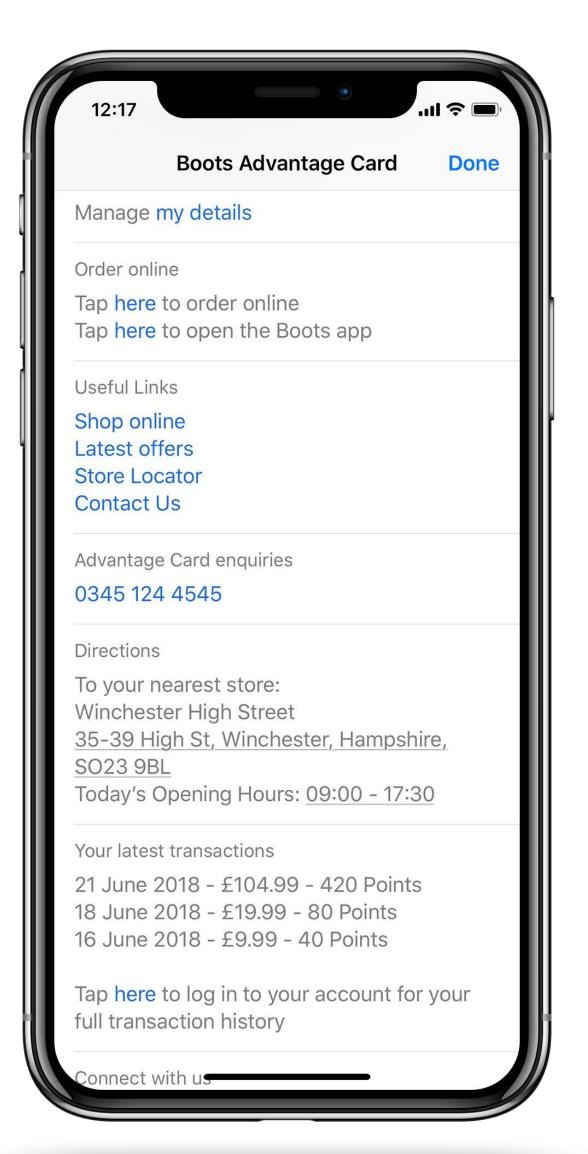
Deliver promotions & provide links to other web assets (e.g. app, social media, website).

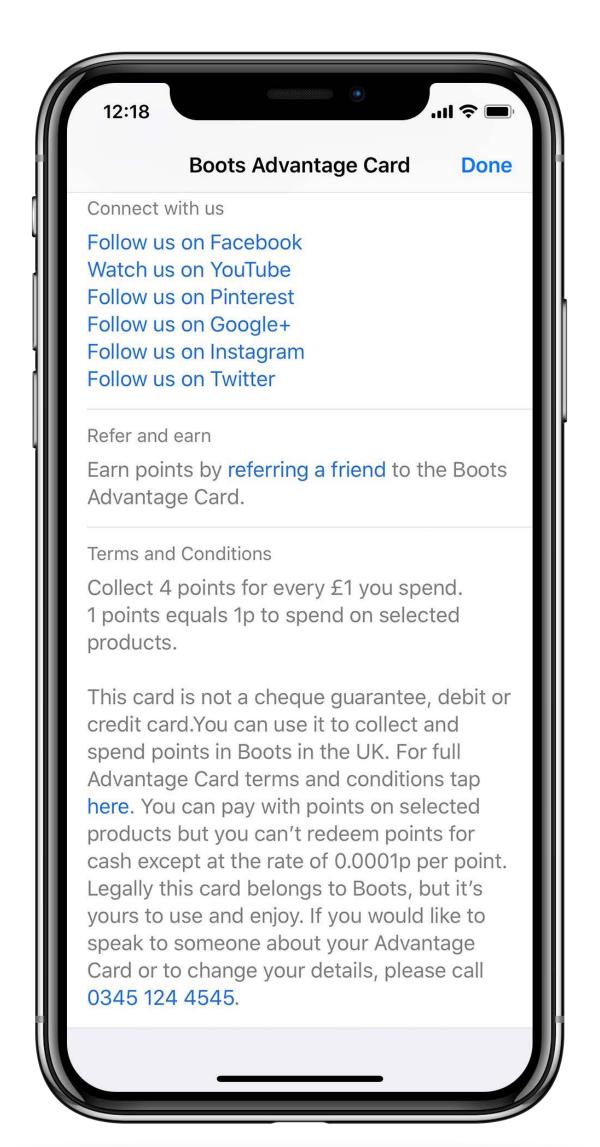
Provide easy access to online store, products, & catalogue.

Quick tap to access information (e.g. maps, chatbots & telephone numbers).

Use social share & referral links to grow brand advocacy.







The back of the pass provides unlimited space for other useful information and links to relevant sites and application.

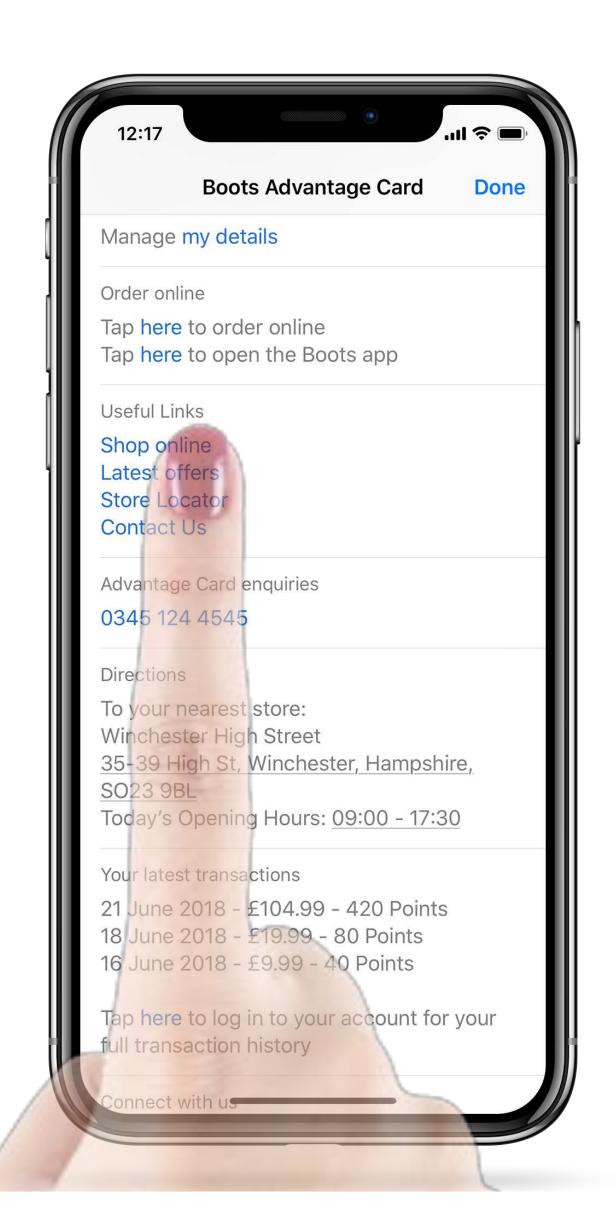


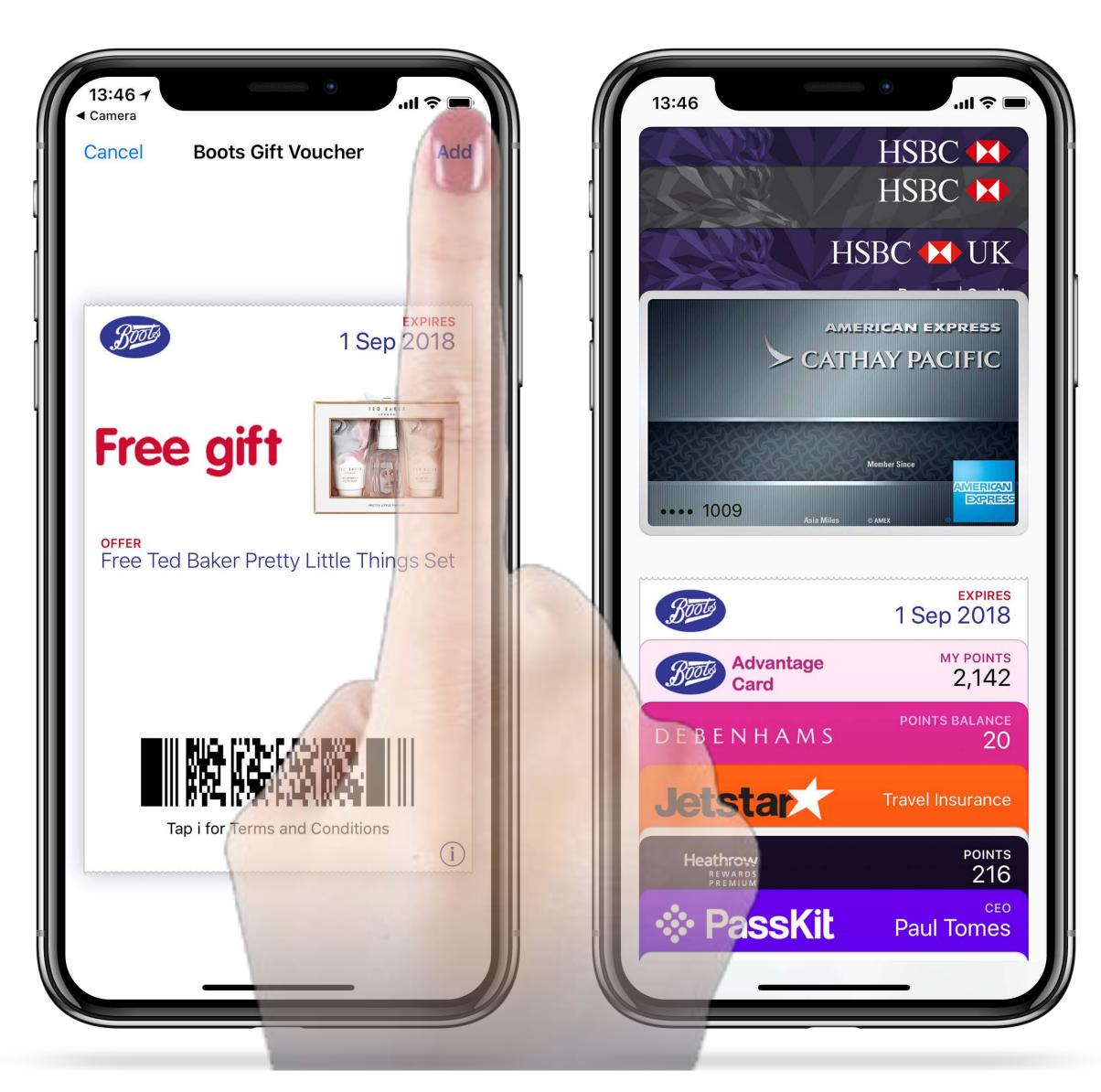
Pass-to-Pass Linking

Using PassKit's connected content, it is possible to deliver links to other passes (e.g. vouchers, gift cards, discounts, event tickets etc..).

Tap on the link (e.g. Latest offer) and a personalised pass is presented for the customer to add to their wallet.

This allow a customers to easily store and use multiple passes in their mobile wallet application.





Potential to use a pass as a distribution channel for other passes. e.g. from a Loyalty Card to a Coupon



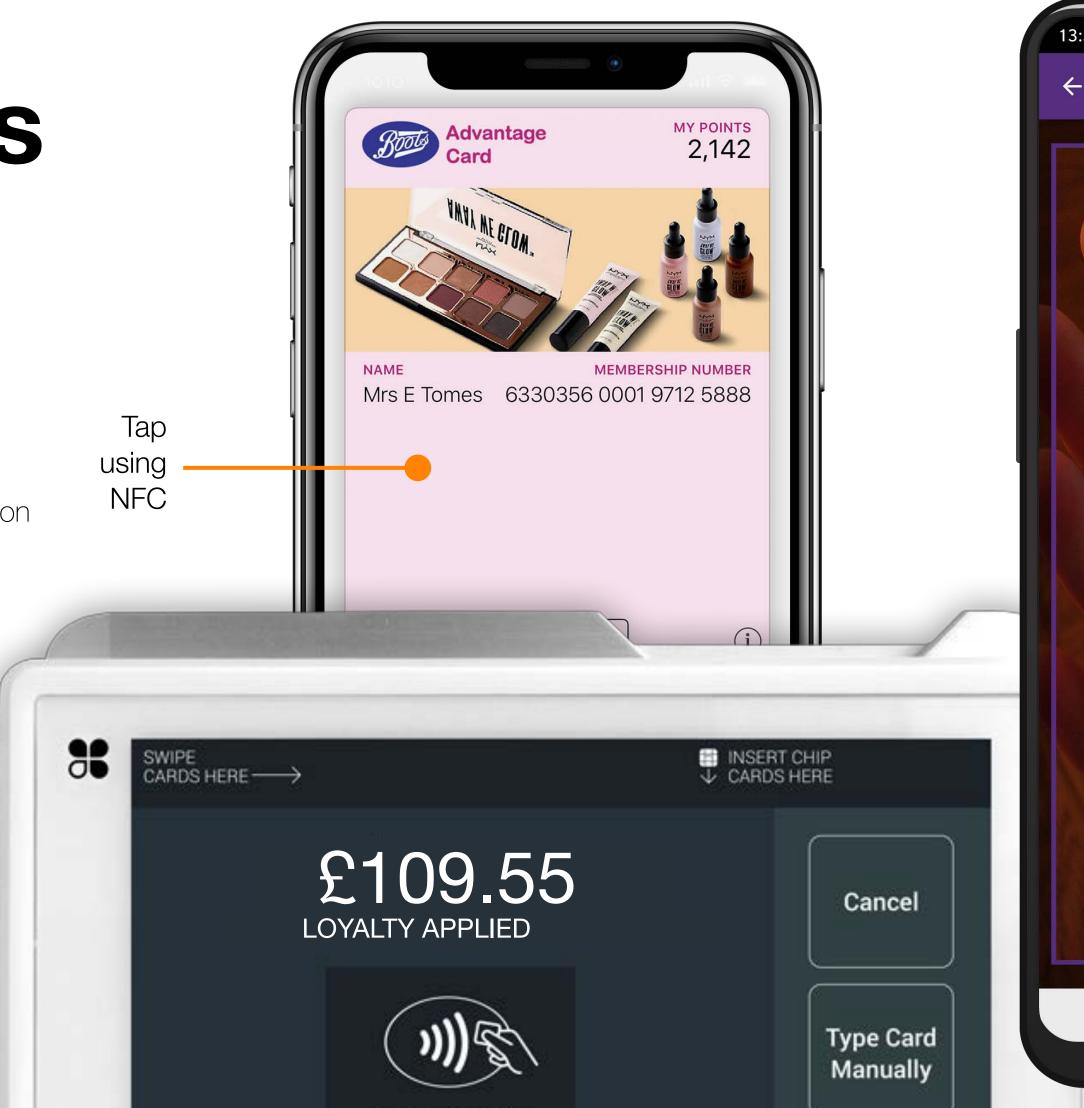
Integration opportunities

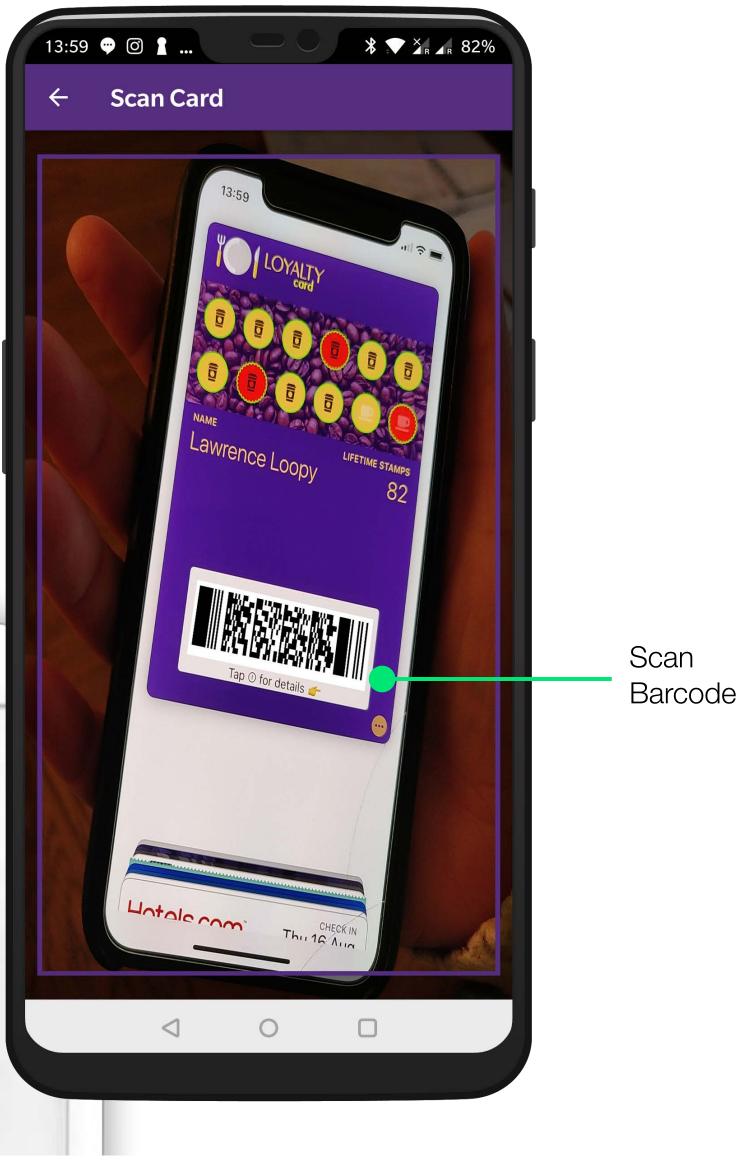
PassKit provides a number of pass redemption / integration solutions, ranging from:

- Self redemption
- Batch updates
- Scanning app (for merchant) without POS integration
- Scanning app (for merchant) with POS integration
- Barcode scanner hardware
- POS integration (using Barcode or NFC)

If terminals support the Apple VAS and Google SmartTap protocol, payment can be taken and loyalty and/or discounts automatically applied with a single Tap.

Additionally other offers can be presented to the customer via the lock screen.





PassKit API and redemption solutions make it easy to capture real time usage data - with or without integration to existing systems and processes.

TAP HERE FOR NFC



Summary



Instant Delivery

Multi-channel distribution with zero/ minimal form filling. One tap to load the pass to their mobile wallet.



Location & Time Aware

Trigger messages to appear on the lock screen, right when the customer needs it. One tap to access.



Dynamic

Instantly update, personalise, or deliver unique offers at anytime to keep customers engaged & informed.



Multi-languag

Personalise wallet content to cater to your demographic. Up to 35 languages supported.



Customers can store their digitised card whatever smartphone device they own.



Appear on the lock screen of your customers' phone when you send an update or schedule a time based message.



Provide additional information to your customers - links to websites, phone numbers, Terms & Conditions, promotions, apps, and more.

Integration possibilities

QR Code or NFC Integration with Point of Sale to allow for real time analytics of pass usage.







A fresh experience for customers - a new channel for brands - tapping into apps customers already own.



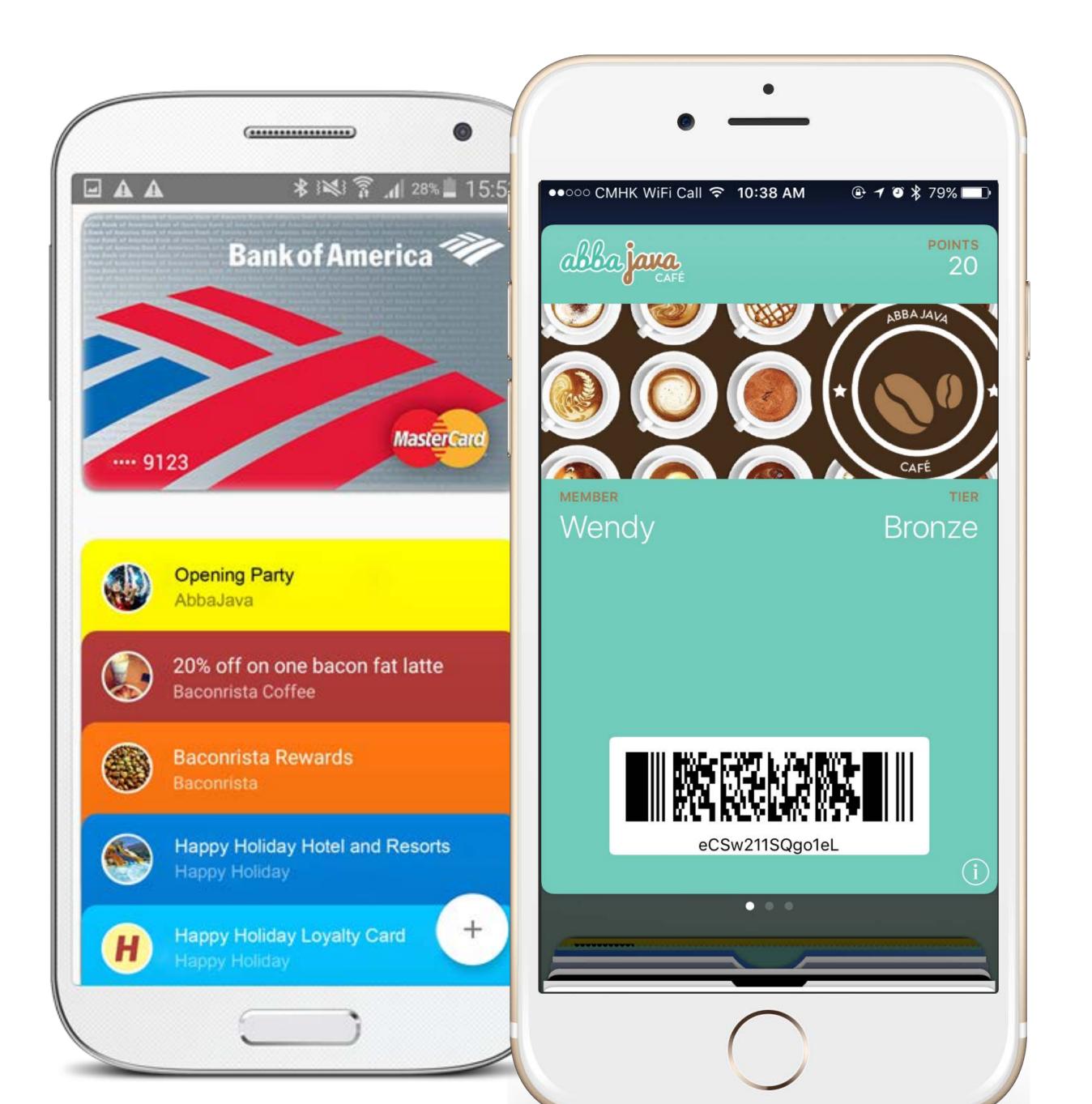


Sample

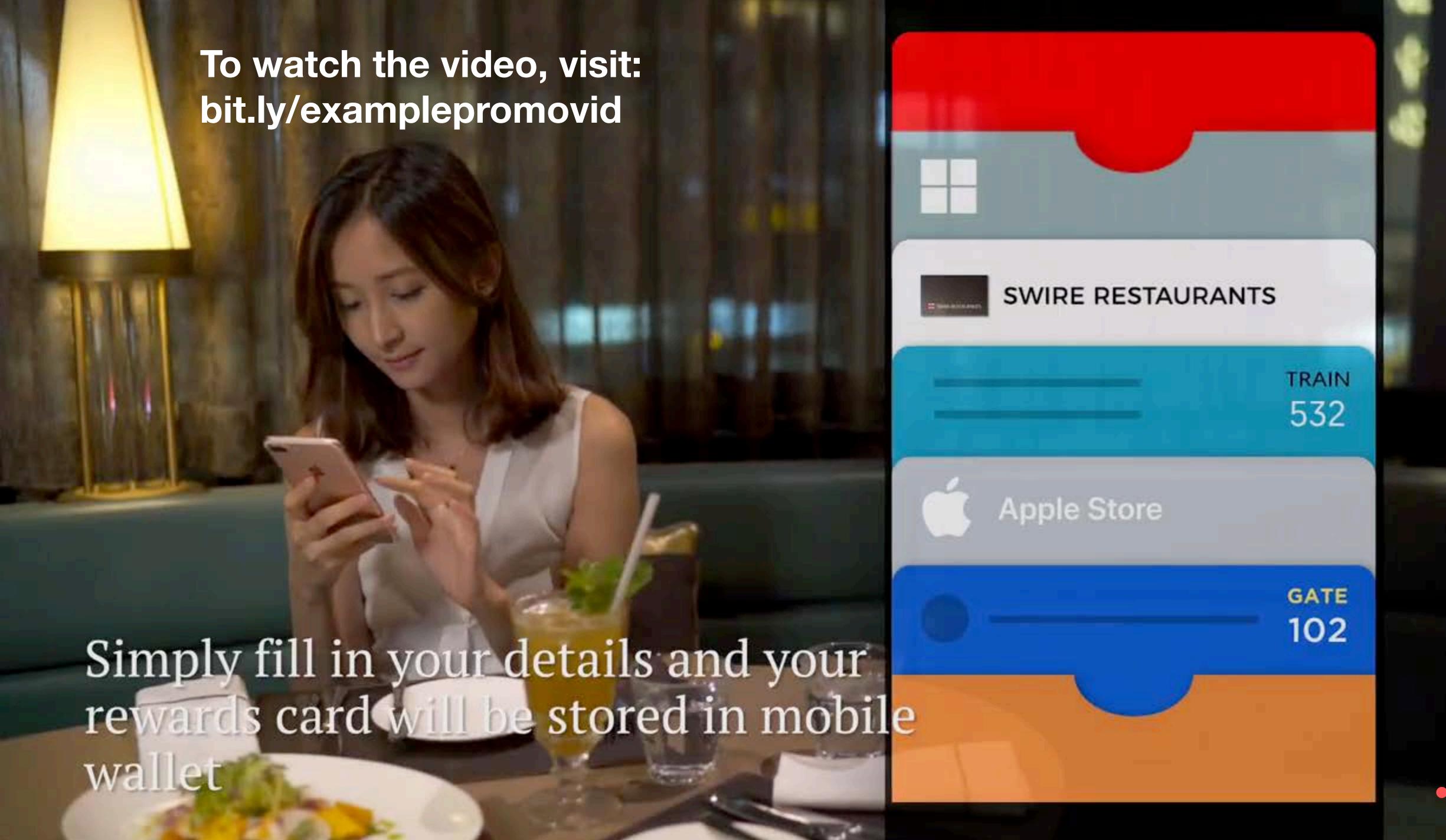
Demo Loyalty card enabled for Apple Wallet & Google Pay.



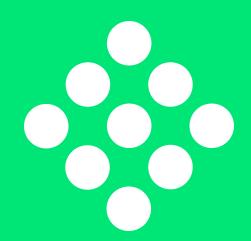
http://bit.ly/pass-demo











• Frequently Asked Questions

#	Question	Info	Possible	Apple Wallet	Google Pay	Notes
	Can the Pass be loaded into Apple Pay & Google Pay wallet automatically?	On receipt of instruction to do so from our systems	Yes	If the customer chooses to load their Pass into Apple Wallet from within your app the pass will load into Apple Wallet automatically. If customer is coming from web or email, note that customer will need to affirm to add the card to their wallet. If your POS terminals support the Apple VAS protocol we can automatically push an enrolment request for Apple Pay users that do not yet have the card installed. This request can be to install an existing card or enrol as a new advantage member (depending on whether an advantage card was already presented during the purchase transaction).	If the customer chooses to load their Pass from within your app and their device is logged into their google account then pass will 'load' into Google Pay automatically If customer is searching for loyalty programmes in the Google Pay app, then PassKit can automatically suggest your Pass, and enrol them using their Google account data. If customer is coming from web or email, note that customer will need to affirm to Save the card to their wallet. If customer is not already logged into their google account then they will be asked to log in, prior to card loading to Google Pay. If Google Pay is not installed then customer will be directed to Google Play, assuming they have an address in a Google Pay territory. If your POS terminals support Google SmartTap protocol we can automatically push an enrolment request for Google Pay users that do not yet have the card installed. This request can be to install an existing card or enrol as a new advantage member (depending on whether an advantage card was already presented during the purchase transaction).	
	Can the Pass be loaded into Apple Wallet or Google Pay wallet depending on device customer is using?		Yes	Apple Wallet is pre-installed (and cannot be deleted) on all iPhone and iPodTouch running iOS6 or above.	If Android user does not have Google Pay installed already they will be prompted to install the app first and then card will be loaded in Google Pay. If Android user already has Google Pay installed then they can save to Google Pay with one tap. Note: Google Pay is only supported on Android devices running Lollipop (5.0) or higher For Android customers with a residential address outside of the Google Pay coverage areas (currently 20 countries) then the customer will be presented with PassKit's wallet fallback (wallet app or browser fallback), in which to store the card.	
	Can we limit customers to one Pass in their wallet?		Yes	During enrolment process for regular customers if they have already enrolled PassKit can either prevent a duplicate enrolment completing, or re-present them with their existing card. This assumes a universal / unique identifier - such as mobile phone number of email address. We can force only one advantage card to be installed at the but this is only possible by working outside of Apple's published guidelines and we have experienced inconsistencies when pushing updates to cards that have been installed in this manner. Recommendation: Deploy Al/machine learning to analyse transactions and flag fraud; using parameters / criteria. This does not have to sit in the wallet management service, although can, but PassKit has the expertise and ability to deliver this capability by partnering with IBM Watson. (PassKit's fraud prevention feature). PassKit can restrict the installation on landing page - but if someone is determined with technology knowledge it's difficult to prevent	During enrolment process for regular customers if they have already enrolled PassKit can either prevent a duplicate enrolment completing, or re-present them with their existing card. This assumes a universal / unique identifier - such as mobile phone number of email address. Can assure that one card is linked to one google acount; Google Pay will only show wallet content for a single Google account, - so assuming that customer is not sharing their Google credentials, effectively limits to one card per person. Google does not allow a single pass to be stored in multiple Google accounts.	

side loading more than one card into wallet.

constraint.

Assuming that the customer identifier is the same then PassKit can display a message and not allow them to add the same card to their wallet. However if a customer is

signing up with 2 emails address, or whatever the unique identifier is, there is no way

Please note: this is a constraint of the Apple Wallet framework, and not a PassKit

to limit the customer having 2 or more advantage cards in their wallet.



#	Question	Info	Possible	Apple Wallet	Google Pay	Notes
	Can we limit customers to add their Pass to a maximum of 3 devices?	This is intended to cover personal phone, business phone and watch	No	Apple Passes are sync'd to iCloud and automatically appear in any device which the user is logged in to. If the customer logs out of their Apple account they are presented the option to keep or delete content.	Google Pay Passes are saved to the user's Google account. Any device logged into the google account will load the card into the wallet. If the customer logs out of their Google account the card is not shown.	If objective of this restriction is to reduce fraudulent use or abuse, then refer to PassKit's fraud prevention feature as per #3.
	Can we prevent customers from 'sharing' their Pass?		Yes	PassKit can disable the sharing feature on Apple Wallet passes.	PassKit can restrict installation to a single pass in a Google account.	There is nothing stopping someone taking a screen shot (for example) and sending this to another person.
	Can we revoke a Pass from wallet (e.g. for cancelled loyalty card or remote wallet management)?		Yes	PassKit can invalidate passes, upon instruction - which will remove the barcode and the choose to 'remove/delete' the disabled pass from their wallet app. (this is a constraint o	, ,	
	Can customers click from the Pass in wallet into our mobile app?	Click is to a specific page within app	Yes	PassKit can deeplink from a pass into your App. Link to app will be dispalyed on the back of the Pass at the top. If the customer does not have your app installed they will be taken to the app store allowing them to download.	PassKit can deeplink from a pass into your App. Link to app will be dispalyed at the bottom of the Pass. If the customer does not have your app installed they will be taken to the google play store allowing them to download.	
	Can the Pass display the membership number and customer name on card in wallet?		Yes	Providing your company collects personal information and customer has given consent displayed on the card.	to use, this information be displayed on the Card. Any account information can be	Note: For compliance with GDPR, should the user exercise their right to be forgotten, then PassKit will anonymise and invalidate the Pass in the user's device, and will irrevocably delete the pass record.
	Can we display an image of the person on the Pass and provide a facility for users to maintain this		Yes	Subject to restrictions of Pass layout, we can display either a strip image or a thumbnail photo - either of these can be chosen or updated by your company or the Customer.	Subject to restrictions of Pass layout, we can display either a strip image or a thumbnail photo - either of these can be chosen or updated by your company or the Customer.	
	Will the Pass display the latest points balance in wallet (updating as transaction changes balance)?	Assumes company provide information on points balance updates	Yes	PassKit will update the pass, upon instruction, with points balance, and if desired send a push message to the customer's lock screen notifying of the update.	PassKit will update pass, upon instruction, with points balance. As of 25 June, Google Pay does not provide the ability to send the user a lockscreen notification.	If a customer has opted out of marketing notifications the Pass will silently updated (i.e. the balance updates but customer will not receive a lockscreen notification)



#	Question	Info	Possible	Apple Wallet	Google Pay	Notes
11	Can we update customer details on the Pass?	For example updating a name.	Yes	Any customer information can be updated. You can choose whether or not to notify the customer via a lockscreen message, when data changes	Any customer information can be updated.	
12	Can we include a transaction history on the Pass?		Yes	PassKit recommend keeping a short list of transaction history on a wallet, and if the cus	stomer wants to see more link to a webpage or in app.	This feature is dependent on you providing PassKit this information.
13	Will PassKit's API and solution remain up to date with versions of IOS and Android?		Yes	PassKit attends Googe IO and Apple WWDC, updates are usually made available 1-2 days after being announced. PassKit is under NDA with both Google and Apple and receives early access to new wallet features and has a significant voice in future developments of both platforms.		
14	Can we receive information to enable management reporting? Including pass addition to wallet, pass removal from wallet, device ID, pass number, Apple or Google, date and time	Includes pass removal as follows: Card manually deleted by customer Lost or stolen phone - blocked phone Wallet app uninstalled and reinstalled Phone wiped / reset Transfer to a new phone	Partially	 PassKit collects and will inform you/your systems of the following events: When the Pass is generated (i.e. a customer enrols) When the pass is added to the wallet Hardware details, iOS version and browser details When a user either disables automatic updates or removes the card (but note Apple does not provide information ton distinguish between these 2 events) i.e. Apple instructs PassKit not to send any more updates to this card. If user gives consent, we can collect customer's location (lattitude and longtitude) on enrolment. To protect user privacy, Apple provides a tokenised device ID which rotates regularly (every 2-4 weeks) which prevents a pass provider definitively tying a pass to a particular device. No information is provided by Apple why updates have been stoped, so not able to differentiate between manual deletion, lost phone etc In the event of a user / customer getting a new phone the pass is automatically installed once they sign in to their iCloud account, but it is not possible to distinguish between this and a device ID rotation. 	 PassKit collects and will inform you/your systems of the following events: When the Pass is generated (i.e. customer enrols) When the pass is added to the wallet. In most cases, we can detect the hardware. In all cases we can detect the Android version and browser details If user gives consent, we can collect customer's location (lattitude and longtitude) on enrolment. Google report no information about the customer's device. PassKit can poll to confirm if the Pass is still in the Google Pay wallet, but Google does not provide notification when a customer removes a pass. 	
15	Do you provide user- configurable updates of Pass marketing/ image assets and branding (e.g. seasonal images)		Yes	PassKit provides ability to update images, colours, text - either for all card, segments or	f cards or even at an individual customer level.	Subject to layout limitation imposed by Apple and Google.
16	Does PassKit allow for customer targeted announcements / notifications / marketing messages, when a Pass is updated?	E.g. thanks for your transaction, new points balance, or a marketing message (triple points in store today)	Yes	PassKit delivers lock screen messages to individuals, segments of customers and/or all customers. These messages can be triggered at 'transaction point' or scheduled. PassKit provides an option to leverage Al/machine learning to optimise marketing effectiveness.	PassKit delivers messages to individuals, segments of customers and/or all customers. These messages can be triggered at 'transaction point' or scheduled. PassKit provides an option to leverage Al/machine learning to optimise marketing effectiveness. As per #11, Google Pay does not deliver the messages to the lock screen, but these messages will be displayed on the card.	



#	Question	Info	Possible	Apple Wallet	Google Pay	Notes
17	Can we initiate Pass enrolment from the payment terminal in store?		Yes	Providing the customer is paying with Apple Pay and has presented the loyalty card already we can automatically load it into the device. If they haven't presented their card they will be presented an enrolment request.	Providing the customer us paying with Google Pay and has presented the loyalty card already we can automatiocally load it into the device. If they haven't presented their card they will be presented an enrollment request.	Payment terminal firmware must support Apple VAS and Google SmartTap protocols
18	Can a user sign-up to our membership program with minimal forms to fill in e.g. take data from customers Apple/Google account?		Yes	If enrolment if triggered by Apple Pay (Apple VAS) then there is an option to pre-fill the enrollment form with information from the user Apple Pay account informartion (limited to name, email, city, postcode, phone). If not using Apple Pay, PassKit delivers mobile responsive webpages that allow customer to enter their data and get their card instantly following sign up. PassKit can also simplify sign up using PassKit's social media Connect solution (i.e. Facebook, Instagram, Twitter, Google). We recommend enabling multiple 'sign up' options and allowing customer to choose their preference. However, please note there is no way to automatically access their personal data (e.g. from their device / apple / google account) without customer permission. Using PassKit's Unique Pass ID feature, assuming customer data is already collect (i.e. already exists in your CRM), then customer does not need to fill in any forms and Pass will be automatically personalised.	If enrolment is triggered by Google Pay (SmartTap) then there is an option to pre-fill the enrollment form with information from the user's Google account informartion (limited to name, email, address, city, county, country, postcode, phone). If enrolment is triggered by web or email, then PassKit delivers mobile responsive webpages that allow customer to enter their data and get their card instantly following sign up. PassKit can also simplify sign up using PassKit's social media Connect solution (i.e. Facebook, Instagram, Twitter, Google). We recommend enabling multiple 'sign up' options and allowing customer to choose their preference. However, please note there is no way to automatically access their personal data (e.g. from their device / apple / google account) without customer permission. Using PassKit's Unique Pass ID feature, assuming customer data is already collect (i.e. already exists in your CRM), then customer does not need to fill in any forms and Pass will be automatically personalised.	
19	Will the Pass holder see a welcome message / location based notification / location based marketing?		Yes	For outide and general store vicinity, PassKit embeds up to 10 GPS coordinates into a user's pass (10 locations are an Apple Wallet constraint). Providing we know the user's location or city upon enrollment PassKit can automatically select the 10 nearest stores. For targetted messages (i.e. makeup promotion, nappoy promotion) then we embed iBeacon UUID in the user's pass. These messages and beacons can be managed thround PassKit's beacon manager. PassKit also can provide beacon hardware, but is compatible with any beacon hardware providers.	For outside and general store vicinity, PassKit embeds unimited number of GPS coordinates into a user's pass. Although Google has it's own beacon formay (Eddystone), Google Pay does not support beacon triggered lock screen messages at this time.	
20	Does PassKit allow other Passes to be added to a customers wallet?	e.g. Staff discount card; Giftcards; coupons & vouchers	Yes	A customer can have as many Passes as they want in Apple Wallet. PassKit can automatically provides links to personalised offers on the back of a customer's Pass. Or can distribute via Apple Pay VAS. Or users can install additional Passes via your app, or website when logging in to their account.	A customer can have as many Passes as they want in their Google Pay Wallet. PassKit can provide 'linked offers' on a Google Pay Pass. PassKit can automatically provides links to personalised offers on the back of a customer's advantage card. Or can distribute via SmartTap. Or users can install additional Passes via your app, or website when logged in to their	

wallet

If logged in via desktop, on Mac using Safari, the Pass will automatically sync with iCloud account and be added to Apple Wallet. If logged in via desktop (and not on a Mac and/or not using Safari), PassKit can provide the ability to send a pass via SMS.



If logged in via desktop, clicking Save to G Pay will automaticallty add the Pass to their

