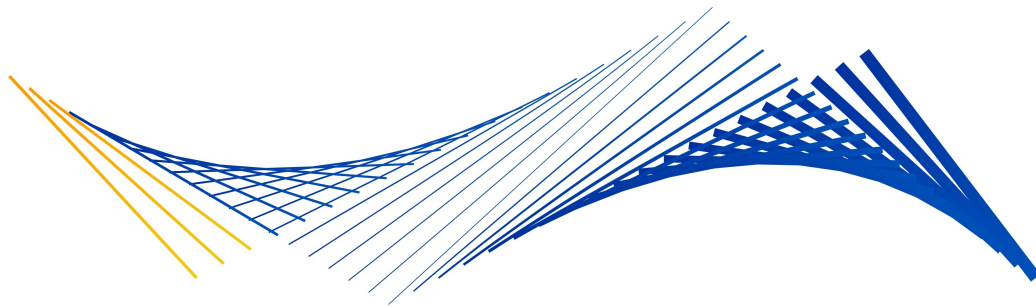


Visa Checkout

Consolidated Release Notes

Effective: January 23, 2019



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What is New in Version 19.01

If configured by Visa Checkout, you can receive a 3-digit DTVV cryptogram in the `cryptogram` field of the consumer information payload's `cryptogramInfo` structure, rather than a TAVV token. The DTVV cryptogram is valid for 24 hours. Your processor will specify how to use this value.

What is New in Version 6.7

- Visa Checkout supports the use of xv2 API keys for `apikey` in JavaScript (`v.init`) and in API requests, which require an `x-pay-token` header. Creation of the xv2 token requires a different algorithm; however, there is no change to API key usage for making requests.

In addition to the change of API keys, you need to provide an encryption key, `encryptionKey`, which Visa Checkout uses to encrypt data in the consumer information payload using the shared secret associated with this encryption key.

- The endpoint domains have changed to `sandbox.api.visa.com` and `api.visa.com`, for the sandbox and live, respectively.
- The default values for `allowTokenization` and `enableTokenization` have changed from `false` to `true`. This change only affects merchants onboarded from Version 6.7 onward.

What is New in Version 6.6

- Saudi Arabia, United Arab Emirates (UAE), and the Ukraine accept Value Added Tax (VAT) as a business identification with the corresponding business IDs that are associated with merchants. See the *Visa Checkout Client API Reference* documentation for more information.
- A `tokenCryptoType` field has been added to the client onboarding and profile APIs to identify the kind of cryptograms being used.

Version 6.5

4

What is New in Version 6.5

This version of Visa Checkout is primarily a maintenance release.

What is New in Version 6.4

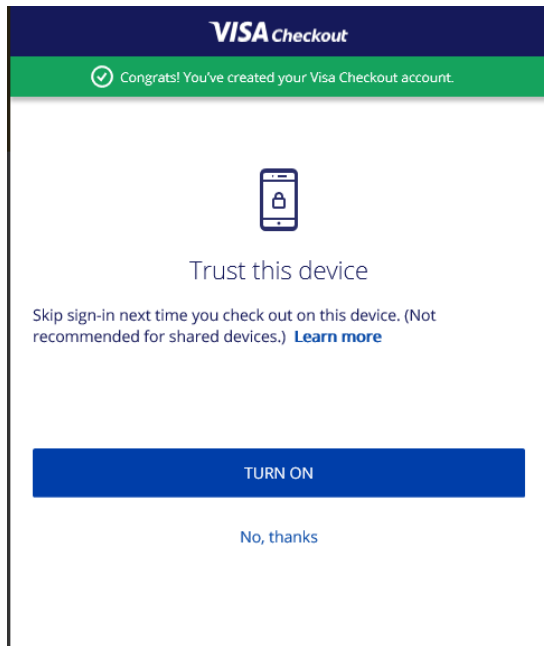
Google Address Autofill Update (EU countries excluding Spain) — For EU consumers (excluding consumers from Spain) who use the address autofill function when entering their address information, Visa Checkout now displays additional text to more clearly indicate that their address information is forwarded to Google and is subject to Google's privacy policy.

Version 6.3

6

What is New in Version 6.3

- The Stay Signed In Opt-in screen has been enhanced to improve usability.



What is New in Version 6.2

- The General Data Protection Regulation (GDPR) (<https://www.eugdpr.org>) is the European Union's (EU) new data protection framework, which becomes effective May 25, 2018. It protects EU residents and those residing in EU borders by providing privacy rights and control over business use of personal data.
- Consumers who have been identified as a registered customer from a country in the European Union are required to accept Visa Checkout's use of cookies as of May 25, 2018.
- Consumers who create Visa Checkout accounts using the Visa Checkout Open Platform can now sign up to receive marketing email messages from Visa.
- All occurrences of Android Pay in the Visa Checkout User Interface (UI) have been replaced with Google Pay. Google has combined all of its different payment services, including Android Pay and Google Wallet, into one unified service that is simply called Google Pay, which resulted in changes to the Visa Checkout UI.
- The `allowTokenization` and `enableTokenization` fields have been added for partners to allow tokenized payment instruments to be used. Before a merchant can accept tokenized payment instruments, tokenization (set `enableTokenization` to `true`) must be enabled in the merchant profile. In addition, tokenization (set `allowTokenization` to `true`) must be allowed when onboarding or configuring a merchant. See the *Visa Checkout Client API Reference (Partner Editions for JSON and XML)* for more information.

Compliance with the GDPR in the European Union

The General Data Protection Regulation (GDPR) is a legal framework that sets guidelines for the collection and processing of personal information of anyone who resides in the borders of the European Union (EU) starting May 25, 2018.

A customer can choose to exercise one or more rights by making a request to a Visa Checkout representative. If you are a merchant and interested in learning more about the steps that Visa Checkout takes when receiving a customer's request, you can contact a Visa Checkout customer representative for more information.

Visa supports the following GDPR privacy rights:

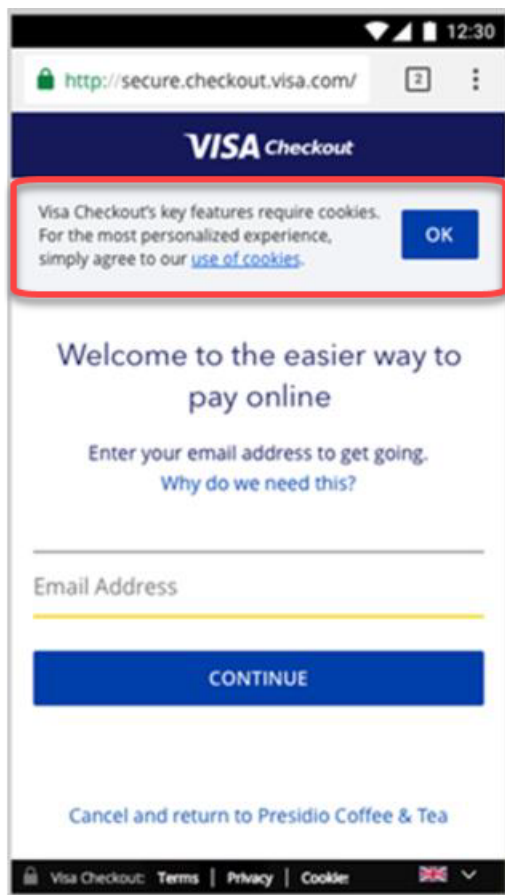
- Right of Access
- Right to Rectification
- Right to Erasure
- Right to Restriction of Processing
- Right to Data Portability
- Right to Object

Consumer's Acceptance of Cookie Usage

Consumers who have been identified as having registered in any country in the European Union are required to accept Visa Checkout's use of cookies explicitly by clicking **OK** in a cookie banner that appears at the top of the Visa Checkout screen.

Consumer have the following choice:

Action	Result
Click OK in the cookie banner of the Visa Checkout screen.	The cookie banner no longer appears after accepting Visa Checkout's use of cookies. Therefore, the consumer can continue with the online payment.
Do not click OK in the cookie banner of the Visa Checkout screen.	The cookie banner continues to appear in the cookie banner. The consumer can continue with the online payment. However, Visa Checkout then no longer uses non-essential cookies, such as Remember Me and Subscribe to Visa Checkout Marketing Information .



Enabling Signup for Marketing Emails Using the Visa Checkout Open Platform

If consumers want to sign up for receiving marketing email messages from Visa Checkout using the Visa Checkout Open Platform, they can check **Email me tailored promotions based on where I use Visa Checkout**, a new checkbox, after creating a password and before clicking **Continue** to create their accounts and link their cards.

VISA Checkout

Create your Visa Checkout account to continue.

Sign in with **john.smith@gmail.com**

First Name
John

Last Name
Smith

Create Password
••••••••

Show

Password rules: 6 characters or longer, can include these special characters ! @ # \$ % & * ? and can't contain 3 consecutive identical characters.

☒ Email me tailored promotions based on where I use Visa Checkout

This allows Wallet Display Name to share your email, phone number, and full card details with Visa to add to Visa Checkout.

By creating an account and linking it to Wallet Display Name, you agree to Visa Checkout's [Terms of Service](#), [Privacy Policy](#), and [Electronic Communication Policy](#).

CONTINUE

What is New in Version 6.1

The optional `collectBillingAddress` field has been added as part of the client onboarding process so that a merchant can now collect less than full information about a customer's billing address during enrollment using one the following values:

- `FULL` - Full billing address (default)
- `POSTALCNTRY` - Postal code and country name
- `CNTRY` - country name only

What is New in Version 6.0

- `paymentAccountReference`, a new payment instrument property in the payload represents an ID that is assigned by Visa whenever the payload includes a token. It provides an association with a PAN and any tokens that are related to a PAN.
- Consumers who enroll for the first time in Visa Checkout can now stay signed in after creating an account and completing the checkout.
- The checkbox that enables consumers to subscribe to Visa Checkout marketing email messages has been moved to the Create Account dialog box.
- Issuers who participate in Visa Token Services receive additional information, such as a card security code (CVV2) in a token provisioning request from Visa Checkout. Also, `PAN Source` is automatically set to `Manually entered` when a consumer enters it.
- Brazilian merchants who only accept ELECTRON cards or the debit side of combo cards now enable consumers to complete transactions with Visa ELECTRON cards and the debit functions of combo cards.
- Consumers receive a customized email message with additional information that includes the card brand, the last 4 digits of the card number, and the name of the wallet partner when a card is added to a wallet if the wallet account has been linked to Visa Checkout during the Visa Checkout Open Platform enrollment.

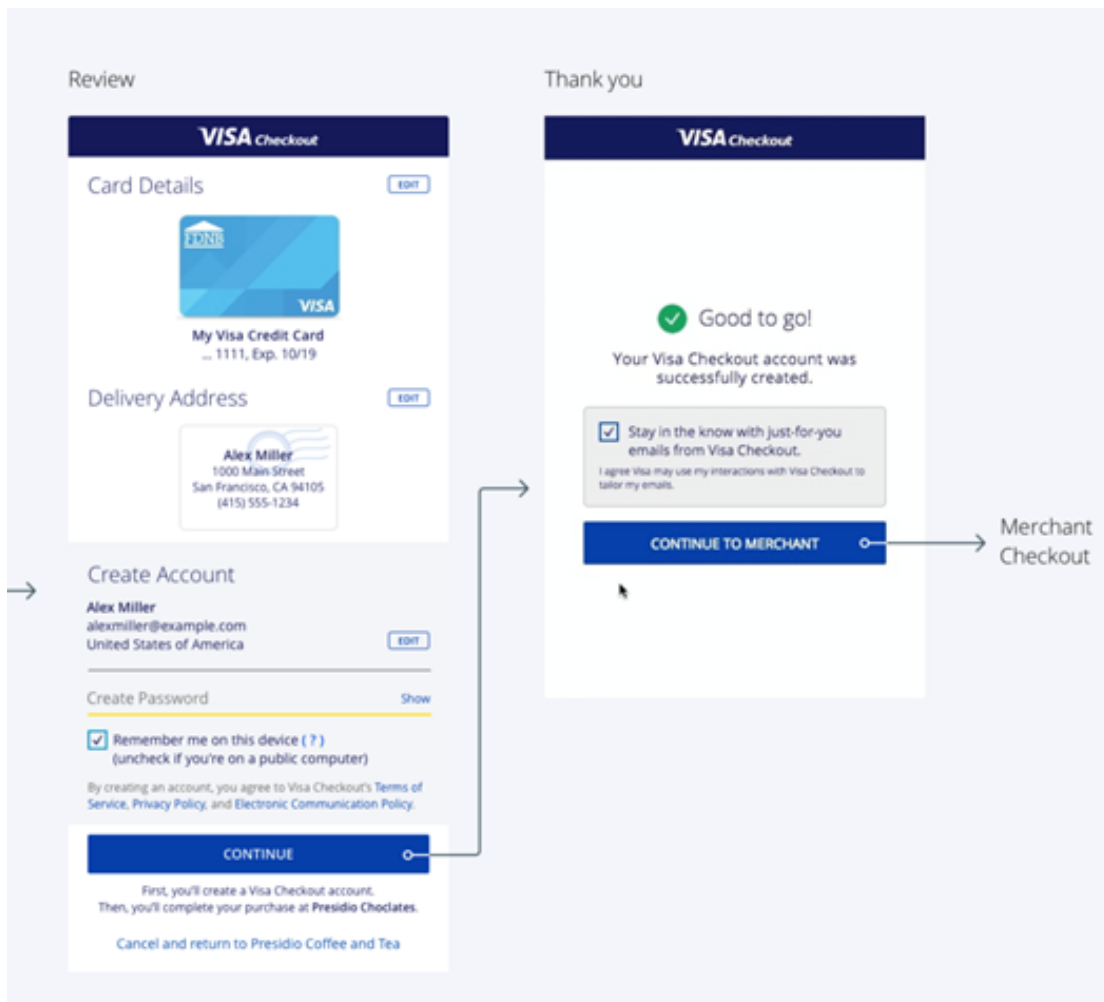
Allowing New Consumers to Stay Signed In

Consumers who enroll for the first time in Visa Checkout can now stay signed in after creating an account and completing the checkout at the end of the Visa checkout flow on the merchant site. Consumers who have signed in can check out with two taps. They no longer have to provide a password that they may not remember.

Note

Consumers can only Stay Signed In to view the opt-in screen if they previously clicked **Remember me on this device** and use a browser that accepts cookies.

The following diagram shows the checkout flow for new consumers who want to stay signed in:



Visa Checkout Provides Additional Information to Issuers in Token Provisioning Requests

Issuers who participate in Visa Token Services receive additional information in a token provisioning request from Visa Checkout. They can use this information to perform additional checks in the token provisioning request as follows:

- The card security code, CVV2, that a consumer enters adds a PAN (Payment Account Number) in Visa Checkout.
- PAN Source is automatically set to Manually entered when a consumer enters it.

Note

These data elements are not sent in the token provisioning requests that the batch or bulk processing system initiates.

Visa ELECTRON and Combo Cards for Brazilian Merchants

Brazilian merchants who only accept ELECTRON cards and the debit function of combo cards enable consumers to complete all transactions with ELECTRON cards and the debit function of combo cards. If consumers use cards other than ELECTRON cards or the debit function of combo cards, the transactions fail.

New and returning consumers can continue to add any type of card when they enroll regardless of the type of card that a Brazilian merchant accepts.

Consumer transactions that are processed by Brazilian merchants who only accept ELECTRON cards result in the following:

- All non-ELECTRON credit and combo credit cards that are used by consumers appear in consumer accounts with a red overlay that they cannot select; therefore, consumers cannot complete the transactions.
- The debit side of a combo card is always processed and sent as an ELECTRON card to authenticate consumers and authorize transactions.
- Non-Electron Visa cards display the following error message:

Card not accepted. Please use a Visa Electron Card.

Note

The **Continue** button is disabled during this process.

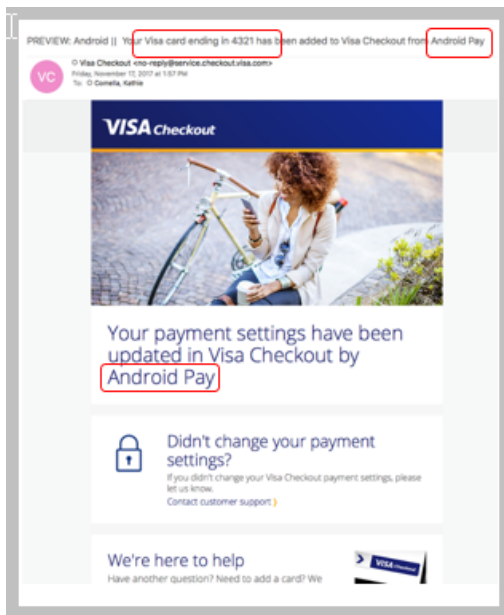
Receiving a Custom Email Message When Adding a Card in a Wallet

A consumer using a wallet receives an email message about Visa Checkout payment settings whenever a consumer adds a card to a wallet if the wallet account has been linked to Visa Checkout during Visa Checkout Open Platform enrollment.

The email subject and heading in the email message that a consumer receives includes the following additional information to highlight the fact that the consumer took an action in the wallet:

- Card brand, as Visa, MasterCard, American Express, etc.
- Card's last 4 digits, such as 1234, etc.
- Wallet partner's name, such as Android Pay, Samsung Pay, etc.

The following sample email message highlights the additional information that now appears:



What is New in Version 5.8

The following enhancements have been added:

- Merchants can now make a billing address configurable by contacting Visa Checkout support.
- Consumers who have forgotten their password when they want to sign into the [Visa Checkout Destination Site](#) or any Issuer applications now confirm their identity with an email-delivered one-time-password (OTP) instead of a security question. They are automatically signed in after changing their password.
- Consumers who sign into Issuer applications are prompted to confirm their identity based on a risk algorithm decision. They must now confirm their identity with an email-delivered OTP instead of a security question.
- Enrolled consumers who choose to **Stay Signed In** can check out with two taps in all countries in which Visa Checkout has been implemented.

All merchants are automatically enabled to allow consumers to **Stay Signed In**. No changes to the merchant's integration are needed.

- Visa Checkout consumers receive an email message to inform them about changes to the 2018 annual policy. They are not required to accept any new terms or respond to the email message.
- The Visa Digital Solutions Platform has been merged with the Visa Developer Center to provide a seamless integration experience.

Making a Billing Address Configurable by Merchant Profile

Merchants can now configure billing address components that Visa Checkout collects from new consumers resulting in the reduction of time that it takes to enroll new consumers in Visa Checkout. It also helps those merchants who have no need for address components from Visa Checkout. This feature is available in all countries in which Visa Checkout has been implemented, except in the Ukraine and Brazil. Even though billing address information can be configured by merchants, a billing address is still required when consumers add a card or edit information in a Visa Checkout account.

The following configuration options for merchants who want to collect different levels of billing address information during a Visa Checkout enrollment are available:

- No collection of any billing address information
- Collection of postal code only
- Collection of full billing address (default)

Visa Checkout continues to collect card details, including first name, last name, country, and phone numbers for any of the configuration options that are listed above.

You need to contact a Visa Checkout representative to configure your account.

Based on a merchant's configuration, one of the following screens is displayed for consumers during enrollment:

No Billing

VISA Checkout

Card Details

Card number

Expires

Security Code

First Name

Last Name

Country

India
▼

Phone Number (required)

▼

CONTINUE

Next: Review and confirm your information
[Cancel and return to Merchant](#)

ZIP Code Billing

VISA Checkout

Card Details

Card number

Expires

Security Code

First Name

Last Name

Country

India
▼

ZIP Code

Phone Number (required)

▼

CONTINUE

Next: Review and confirm your information
[Cancel and return to Merchant](#)

Full Billing

VISA Checkout

Card Details

Card number

Expires

Security Code

First Name

Last Name

Country

India
▼

Billing Address

Must match what is on your credit card or bank statement

First Name

Last Name

Address Line 1

Address Line 2 (Optional)

Landmark

City

Pincode

State

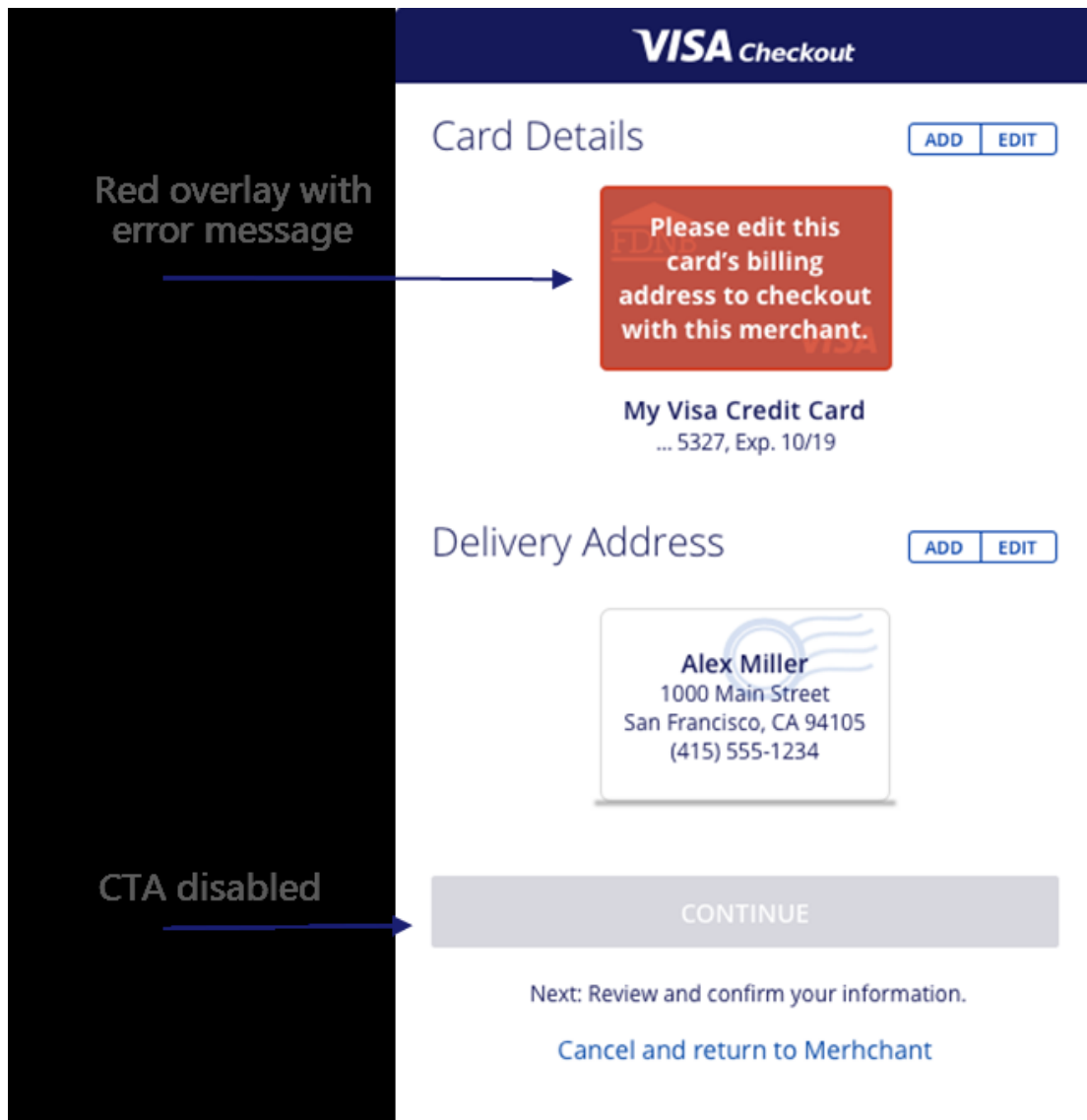
Phone Number (required)

▼

CONTINUE

Next: Review and confirm your information
[Cancel and return to Merchant](#)

Returning consumers who subsequently check out at a merchant's web site that requires more information than what consumers have already made available in their accounts are automatically prompted to enter full billing information before they can check out. They are prompted as follows:



Allowing Consumers to Stay Signed In

Consumers who have already enrolled in Visa Checkout, can choose to stay signed in at the end of the Visa Checkout checkout flow on the merchant site. Consumers who have signed in can check out with two taps. They no longer have to provide a password that they may not remember. Although this option has previously been available in the US and Canada for several months, **Stay Signed In** is now available in additional markets, including Australia, Brazil, China, France, Great Britain, Hong Kong, Ireland, Kuwait, Mexico, New Zealand, Poland, Qatar, Saudi Arabia, Singapore, South Africa, Spain, Ukraine, and United Arab Emirates.

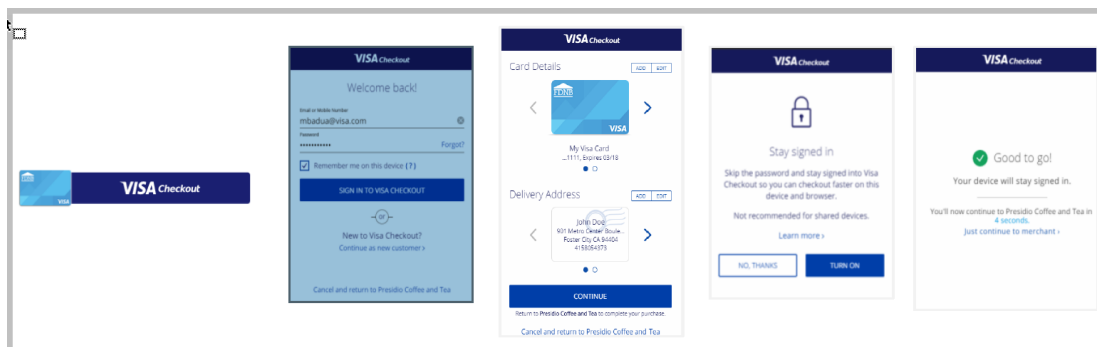
Consumer Experience for Stay Signed In

An existing Visa Checkout consumer enables **Stay Signed In** once in each browser on their devices. This task is accomplished in the lightbox or in the Account Management section of the Visa Checkout Destination site.

- As soon as a consumer enables **Stay Signed In**, Visa Checkout can automatically recognize the consumer's device and browser during the next use of Visa Checkout. The consumer can then check out using an existing card and address without having to enter their Visa Checkout password.
- Consumers automatically receive email messages when they enable **Stay Signed In** on a device, disable **Stay Signed In** on all devices, or use **Stay Signed In** at a merchant's web site.
- A consumer can disable **Stay Signed In** in using Visa Checkout Account Management or by contacting a Visa Checkout representative.

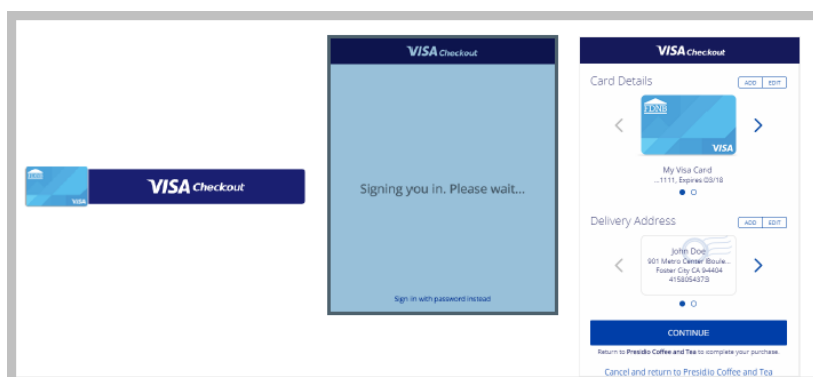
Enabling Stay Signed In

Existing Visa Checkout consumers are prompted to enable **Stay Signed In** and can click **Continue** after they have selected a payment method and address. If consumers have selected **Remember me on this device**, and have not declined or disabled **Stay Signed In** in the previous six months or deleted their cookies, and Visa Checkout has access to drop cookies on the consumer's device, then the consumer is prompted as follows:



Checking Out with Stay Signed In Enabled

As soon as a consumer has enabled **Stay Signed In**, Visa Checkout recognizes the device and browser on their next use of Visa Checkout. The consumer can then check out with an existing card and address without having to enter a Visa Checkout password. This is the default behavior for Visa Checkout after a consumer has opted to enable **Stay Signed In**.

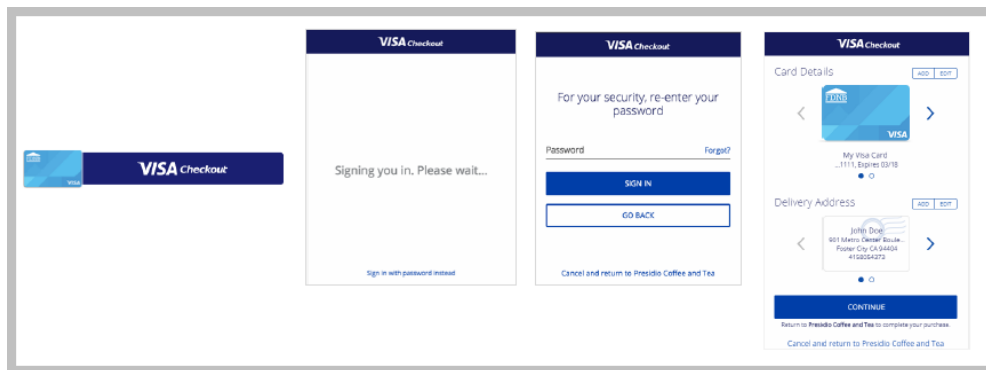


Checking Out with a Password Challenge and Stay In Enabled

A consumer can be challenged for a password in certain cases. For example, if fraudulent activity is suspected, the consumer has not used Visa Checkout in six months, or the consumer wants to add or edit a new card or address, then a password challenge occurs.

Consumers can be prompted to enable **Stay Signed In** in the lightbox. Whenever consumers are not successfully signed in, they are challenged for a password under the following circumstances:

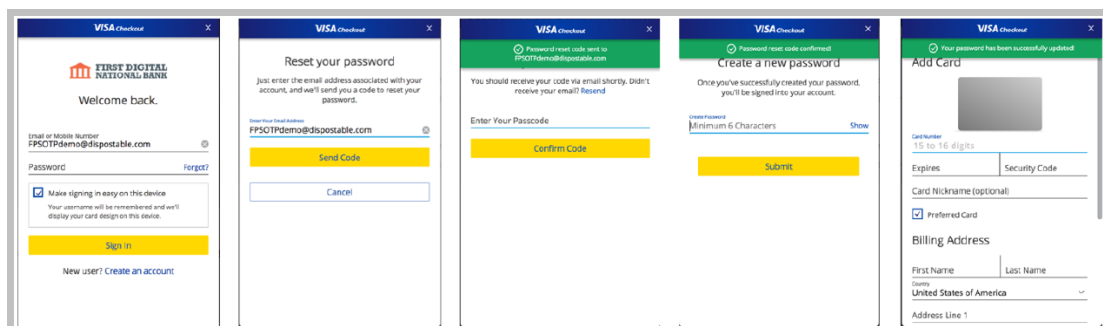
- If a consumer's browser settings do not allow third-party cookies, Visa Checkout cannot display the mini pop-up window experience, which allows Visa Checkout to set cookies.
- If a consumer uses a Safari browser and has enabled Stay Signed In more than 30 days ago, a Safari Intelligent Tracking Prevention purges some third-party cookies after 30 days.
- If a consumer's device is configured to use some browser's privacy and cookie settings, it cannot be successfully recognized (profiled).
- If a consumer uses certain merchant hybrid mobile apps or the Safari browser to shop at a merchant's web site in a mobile app



Implementation of One-Time Password

Consumers, who have forgotten their password—including any consumers who have used Issuer apps—must confirm their identity with a one-time password (OTP).

Although everyone must use a one-time password if they have forgotten their password, any consumers who use Issuer apps now need to perform this task in the lightbox; previously, it was completed on a separate tab.



Other consumers who have forgotten their passwords and need to confirm their identity, must also use a one-time password.

The image displays four sequential screenshots of the Visa Checkout user interface, illustrating the login and card addition process.

- Screenshot 1 (Welcome back):** Shows the login screen for "FIRST DIGITAL NATIONAL BANK". It includes fields for "Email or Mobile Number" and "Password", a "Forgot?" link, a checkbox for "Make signing in easy on this device" (checked), and a "Sign In" button. A link for "New user? Create an account" is at the bottom.
- Screenshot 2 (Let's make sure it's you):** Shows a verification step. It states "To keep your account safe, we're going to send you a verification code in an email. Please use the code to verify your identity." It displays the email "e*****2@dispostable.com" and a "Send Code" button. A link for "Sign into a different account" is at the bottom.
- Screenshot 3 (Verification Code):** Shows the verification code screen. It states "Verification code sent to e*****2@dispostable.com" and "You should receive your code via email shortly. Didn't receive your email? Resend". It includes a "Verification Code" input field, a "Confirm Code" button, and a link for "Sign into a different account" at the bottom.
- Screenshot 4 (Add Card):** Shows the "Add Card" screen. It includes fields for "Card Number", "Expiry", and "Security Code". It also has a "Card Nickname (optional)" field, a checked "Preferred Card" checkbox, and a "Billing Address" section with fields for "First Name", "Last Name", "Country" (set to "United States of America"), and "Address Line 1".

Portal Unification

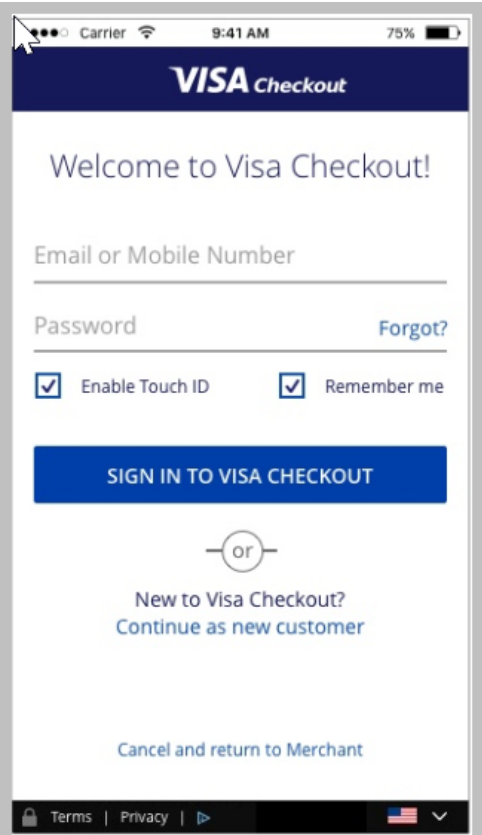
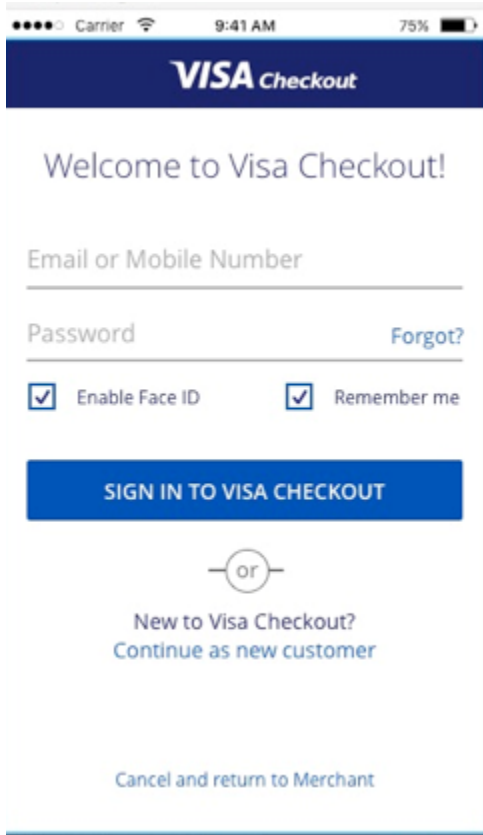
The Visa Digital Solutions Platform, which has been merged with the Visa Developer Center, can now:

- Manage end-to-end developer configuration of Visa Checkout and Visa Token Services by using a single Visa Developer Center account and credentials.
- Provide access to Visa Checkout and Visa Token Services profiles, as well as configurations pages, through a project on the Visa Developer Center.

Visa Token Services and Visa Checkout APIs continue to be available in the Visa Developer Center (developer.visa.com).

What is New in Version 5.7

- The iOS Hybrid Mobile App Plugin has been enhanced to support the Face ID feature on Apple's iPhone X. Consumers now view a checkbox that displays `Enable Face ID` instead of `Enable Touch ID` on iPhone X.

Touch ID	Face ID
	

What is New in Version 5.6

- If you are configured to use tokens in payment instruments, you now can be configured to use Verified by Visa (VbV) as well. When merchants are configured to receive tokens from Visa Checkout using 3-D Secure 1.0 in Visa Checkout, they receive a token cryptogram in the 3-D Secure payload response in addition to the Cardholder Authentication Verification Value (CAVV). Both the token cryptogram and CAVV need to be passed to your processor in your authorization request.
- The consumer information payload now contains a `Wallet Info` structure, in which the `walletName` field indicates the wallet.
- By enabling the prefill consumer information feature, merchants confirm that they have provided all applicable disclosures and/or have obtained all applicable consent from each consumer regarding any intended disclosures and uses of any consumer information to be provided to Visa Checkout. The MSA (Merchant Service Agreement) needs to include language that addresses any support for this feature. Contact your Visa Checkout representative for more information.
- The following changes affect the Visa Checkout hybrid mobile app plugins:
 - Support for `UIWebView` in hybrid mobile app plugins is now available.
 - By default, only in India is biometric authentication disabled for consumers. Therefore an Indian consumer can continue to use the `Remember Me` option.
- The following changes have been made in the graphical user interface:
 - Font and colors for Visa Checkout buttons have been improved.
 - Privacy notice has been changed in the Add Card and Edit Card screens.
- The following changes affect consumers:
 - Subscriptions to marketing-related emails are now available during enrollment for additional countries.
 - Support for local toll-free telephone numbers has been added.
 - The challenge option has been removed and replaced with a one-time password (OTP).
 - When consumers use Visa Checkout with a Google Chrome or Safari browser on an iOS-based device (iOS and Mac OSX), a pop up appears instead of the Visa Checkout lightbox. It prompts the consumer to restart the checkout.
- The following change affects issuers:
 - Issuers can now prevent the creation of Visa Checkout accounts by consumers who do not have cards. The **No Thanks** button that has previously enabled consumers to skip adding a card during enrollment is no longer available; however, consumers signing up from Visa Checkout can choose not to create a payment method.

Wallet Info

Field	Description
walletName	<p>The pay wallet indicator.</p> <p>Format: It is one of the following values:</p> <ul style="list-style-type: none">• SAMSUNG_PAY• ANDRIOD_PAY• VISA_CHECKOUT <p>Example: "walletName": "VISA_CHECKOUT"</p> <p>Since 5.6</p>

Support for UIWebView in Hybrid Mobile App Plugins

The Visa Checkout iOS-based hybrid mobile app plugin now supports merchant hybrid apps that use `UIWebView` in addition to `WKWebView`.

See the *Visa Checkout Hybrid Mobile App Integration Guide* for detailed information on how the activation steps have changed.

Disabling of Fingerprinting in Hybrid Mobile App Plugins in India

Merchants cannot turn on biometric authentication in India. By default, biometric authentication is disabled for consumers in India. Therefore, an Indian consumer can continue to use the `Remember Me` option. The **Enable TouchID** checkbox never appears on a hybrid mobile app for a consumer in India.

Graphical User Interface Changes

The following changes have been made in the graphical user interface (GUI):

- Visa Checkout has improved the consumer's experience by changing fonts and colors for buttons in Visa Checkout.

Welcome page as it appears in v5.5	Welcome page as it appears in v5.6

- The privacy notice in the Add Card and Edit Card screens have been changed in Visa Checkout. The standard footer replaces the legal footer text on any page in which cards are being added or edited.

Add Card page as it appears in v5.5	Add Card page as it appears in v5.6

Subscription to Marketing Emails During Enrollment

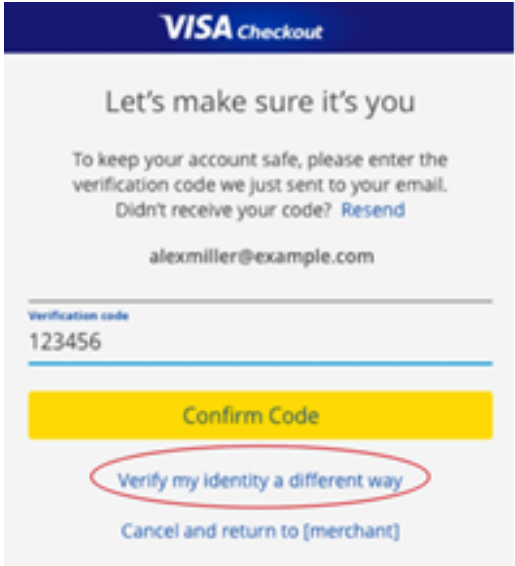
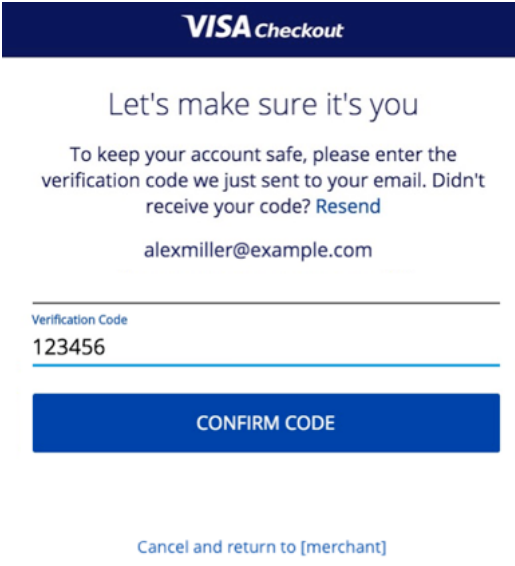
Consumers in Canada, Hong Kong, Malaysia, and Singapore can now subscribe to marketing-related email messages during enrollment. By default, the subscription checkbox is unchecked in these countries. Consumers in India can also now subscribe to marketing-related email messages during enrollment. However, the subscription checkbox is checked by default.

Support for Local Toll-Free Telephone Numbers

Consumers in Mexico, Colombia, Chile, and Argentina who have access to the **Contact Us** page can now click **Call Customer Support** to display a country-specific local toll-free telephone number along with a one-time generated access code after signing into Visa Checkout.

Removal of Challenge Option

The implementation of a one-time password (OTP) has replaced the challenge answer response for consumers as a default option. The **Verify my identity a different way** option has been removed. However, the option to answer challenge questions is retained as an alternative.

Add Confirm Code page as it appears in v5.5	Add Confirm Code page as it appears in v5.6
	

New Visa Checkout Accounts Require Cards

Issuers can now prevent the creation of Visa Checkout accounts by consumers who do not have cards. The **No Thanks** button that has previously enabled consumers to skip adding a card during enrollment is no longer available. Any consumers who sign into Visa Checkout Branded and Provisioned applications are still allowed to bypass having to add an additional card.

What is New in Version 5.5

The following merchant enhancements have been added:

- You can prefill a consumer's first name, last name, phone number, and email address in the lightbox from your data for new Visa Checkout consumers.
- In the `cryptogramInfo` structure, the fields `tokenCryptogramType` and `expirationTimestamp` have been added.

Cryptogram information is only available for token-enabled payment instruments. You must be configured by Visa Checkout to receive this information.

- Transport Layer Security (TLS) 1.2 must be supported and enabled on your site/webserver and in your apps. For information about TLS 1.2, see
 - PCI Security Standards Council, Migrating from SSL and Early TLS at <https://blog.pcisecuritystandards.org/migrating-from-ssl-and-early-tls>
 - Guidelines for the Selection, Configuration, and Use of Transport Layer Security (TLS) Implementations at https://www.nist.gov/publications/guidelines-selection-configuration-and-use-transport-layer-security-tls-implementations?pub_id=91529

Contact your Visa Checkout representative for more information about the TLS 1.2 integration requirement.

Important

Visa Checkout advises consumers to upgrade to the latest version of their browser to take advantage of the latest security features that the browser offers. The browser must use Transport Layer Security (TLS) 1.2 or higher.

The following market expansion enhancements have been added:

- `Ukrainian Address Line 2` is now optional in the Visa Checkout Software Development Kit (SDK) for Android, starting with version 5.5.
- Support for additional bins is now available for ELO cards in Brazil:
 - Crédito (Credit only)
 - Múltiplo (Combo) (Credit only)
 - Cultura (Pre-Paid)
 - Pré-Pago (Pre-Paid)
- Autofill is now available in the Visa Checkout Software Development Kit (SDK) for Android starting with version 5.5 for the `Municipio`, `Ciudad`, and `Estado` fields by using pre-populated data from Servicio Postal Mexicano (Sepomex), the official provider for address-related information in Mexico. For any consumers who create or edit address-related information for the country of Mexico in Visa Checkout, the address-related fields are automatically pre-populated based on the ZIP code (`Codigo postal`) and `Colonia` values. Consumers can also edit any pre-populated fields.
- The street number (`Número`) value is now a required address field for the country of Brazil. It appears on a separate line in the consumer information payload in the lightbox.

The following consumer enhancements have been added:

- Any consumers who have been locked out of their accounts automatically receive a one-time password (OTP) code by email when they attempt to log into their accounts. When consumers enter the OTP code and reset their passwords, their accounts are then unlocked.
- Any consumers who previously enabled the **Remember Me** checkbox in a hybrid web application on the Android platform are now remembered if the hybrid web application was upgraded after version 5.2 to support the Hybrid App plug-in.
- Visa Checkout buttons now use .svg format with animation on supported browsers.
- Visa Checkout has improved the consumer's experience by changing the background, font color, font weight, and header design in some screens. For example, the Welcome screen now has a lighter background.

User Data Prefill Event Handler

You can prefill a consumer's first name, last name, phone number, and email address in the lightbox from your data for new Visa Checkout consumers. After being enabled by Visa Checkout, a merchant can set the `enableUserDataPrefill` parameter in `V.init` to `true` and provide a `V.on` event handler to provide the consumer information; the event occurs when the consumer accepts the prefill. Consumers are prompted to accept the prefill when they are new, or when they are not recognized as existing Visa Checkout consumers, which can happen when the Visa Checkout cookie is not present in the consumer's browser.

From your event handler, you can specify data for any of the following fields; fields that are not specified are not prefilled:

Field	Description
userFirstName	Consumer's given (first) name. Format: Alphabetic or the following characters: spaces, ' (single quote), ` (back tick), ~ (tilde), . (period), and - (hyphen); maximum 256 characters
userLastName	Consumer's surname (last name). Format: Alphabetic or the following characters: spaces, ' (single quote), ` (back tick), ~ (tilde), . (period), and - (hyphen); maximum 256 characters
userEmail	Valid email address for the consumer making the payment. Format: Alphanumeric, valid email address; maximum 256 characters
userPhone	Valid mobile phone number for the consumer making the payment; for future use. Format: Numeric or hyphens, parentheses, period, or plus sign, valid for the country; maximum 30 characters

Your event handler returns the fields that you want to prefill:

```
V.on('pre-payment.user-data-prefill',function(){
  return {
    userFirstName: 'Jill',
    userLastName: 'Consumer',
    userEmail: '...',
    userPhone: '...'
  }
});
```

If the data is not readily available, you can return a promise, which Visa Checkout accepts if the lightbox experience is not degraded by waiting. For example, if you need to query your backend server to obtain the data you want to prefill, you can return a promise and then fetch the data, as shown in the following example:

```
V.on('pre-payment.user-data-prefill',function(){
  return new Promise(function(resolve, reject) {
    // api call to get data and resolve it
    fetch('https:your_endpoint')
      .then(function(data) {
        resolve( {
          userFirstName: data.your_source_for_userFirstName,
          userLastName: data.your_source_for_userLastName,
          userEmail: data.your_source_for_userEmail,
          userPhone: data.your_source_for_userPhone
        })
      })
      .catch(function(error) {
        reject(error);
      });
  });
});
```

cryptogramInfo Structure

The `cryptogramInfo` structure provides a cryptogram, which makes the token difficult to replicate, e.g. tokens cannot be used without the current cryptogram. The `cryptogramInfo` structure is returned only if you are enabled to receive the full payload; it is not provided with summary information. Because the cryptogram limits the use of the token, you may need to request the consumer information payload again, before performing additional operations using the token. Making a Get Payment Data API request obtains the consumer information payload, which provides a new "current" cryptogram for further use.

Important

You are not allowed to store or retain a cryptogram.

The `cryptogramInfo` structure can contain the following fields:

Field	Description
<code>cryptogram</code>	<p>Current cryptogram associated with the token. Visa Checkout creates a new cryptogram via every payload request with the Get Payment Data API.</p> <p>Note</p> <p>A token authentication verification value (TAVV) cryptogram must adhere to the VisaNet requirements for Field 126.9, which is 20 bytes long. The cryptogram must be decoded into a 20-byte binary value before submitting it to VisaNet.</p> <p>Format: Alphanumeric</p> <p>Example: "<code>cryptogramInfo</code>" : "..."</p> <p>Since 3.4</p>
<code>eci</code>	<p>An e-commerce indicator (ECI) represents a value to indicate the authentication results of a consumer's credit card payment on a secure channel</p> <p>Important</p> <p>If you are using Verified by Visa (3-D Secure) with tokens, you must provide the <code>eciRaw</code> value in the <code>threeDS</code> structure to your processor, not this value.</p> <p>Format: It returns the following 2-digit value:</p> <ul style="list-style-type: none"> 07 <p>Example: "<code>eci</code>" : "07"</p> <p>Since 3.4</p>

Field	Description
tokenCryptoType	<p>Kind of token, which is one of the following values:</p> <ul style="list-style-type: none"> • DTVV; valid for 24 hours • TAVV; required for VisaNet Field 126.9 <p>Example: "tokenCryptoType" : "TAVV"</p> <p>Since 5.5</p>
expirationTimestamp	<p>Date and time when the cryptogram expires, in milliseconds</p> <p>Format: ISO 8601 standard in the form of <i>yyyy-mm-ddThh:mm:ss:mmmZ</i></p> <p>Example: "expirationTimestamp" : "2017-07-22T07:07:59.000Z"</p> <p>Since 5.5</p>

Lightweight Animated Visa Checkout Button

The format for the Visa Checkout button has changed from Portable Network Graphics (png) format to a Scalable Vector Graphics (svg) format. Because of the support for a higher resolution with the svg format, the Visa Checkout button can be animated, is scalable as well as responsive, and is small in size. When the Visa Checkout button is displayed in svg format, consumers can now view the following animations:

- Sheen – a band of shining light gleams over the card art (or chevron)
- Jiggle – the card art (or chevron) jiggles a little as the Visa Checkout button is displayed
- Spinner – applies to the Visa Checkout Open Platform's co-branded button only; a spinner appears on the button after the sliding card art
- Sliding card art – the card art slides to the right when the button is clicked

What is New in Version 5.4

- If you are enabled to receive tokens as a payment instrument, the response associated with the `payment.success` event now returns a `paymentMethodType` field with possible values `PAN` or `TOKEN`. You can use this field to determine the type and contents of the payment instrument in the payload before decrypting it. In addition to being a field in the `payment.success` response, `paymentMethodType` is also available from the Get Payment Data API and in the payload itself. For more information, see the *Visa Checkout Integration Guide*.
- The `Municipio`, `Ciudad`, and `Estado` fields for the country of Mexico are automatically pre-populated based on the zip code (`Codigo postal`) and `Colonia` values when consumers create or edit address-related information in Visa Checkout.
- A new chapter, "Mobile App Support," has been added in the *Visa Checkout Integration Guide*, version 5.4.
- Visa Checkout provides issuer applications with a seamless flow that displays a customizable offer to consumers at the end of the enrollment flow. The consumer can click the offer link to a merchant to redeem the offer within 30 minutes without re-entering their Visa Checkout password. For more information, contact your Visa Checkout representative.

What is New in Version 5.3

- This version is primarily a maintenance release.
- Appendix E, "US, Canadian, and Australian Location Abbreviations" is no longer included in the *Visa Checkout Integration Guide*. The content is now included in the *Visa Checkout Address Formats by Country* document.
- The `Complemento` value is automatically generated from the Brazilian Postal Address database (Correios) and appears in the `additionalLocation` payload field to allow a Brazilian consumer to define a custom value for this field as an option.
- A spinner appears when a consumer clicks the Visa Checkout button.
- Autofill standards have been updated in Visa Checkout form fields.

Appearance of Spinner When Clicking Visa Checkout Button

The following figure shows a spinner that appears when a consumer clicks the **Visa Checkout** button. It fades after the Visa Checkout lightbox is fully loaded.



Autofill Enhancements for Visa Checkout Form Fields

This enhancement uses card and user data that have already been stored in a consumer's browser to Autofill form field values during a Visa Checkout session. This enhancement uses the Autofill Form control infrastructure, as defined by the [Web Hypertext Application Technology Working Group](#) (WHATWG), to determine any data that may become available for the Autofill enhancement.

Important

Address fields in Visa Checkout are excluded from the Autofill enhancement to avoid conflicts with any existing functionality that the Google Address Autocomplete feature may cause.

The Autofill enhancement is supported as follows:

- Google Chrome browser– Full Autofill support for user data and credit cards that have been added with Android Pay, Google Chrome, or any other Google channels
- Apple Safari browser– Full Autofill support for any user's data and credit card

- Firefox browser–Limited Autofill capabilities
- Microsoft Internet Explorer browser–Limited Autofill capabilities

What is New in Version 5.2

- Consumers are presented with One Time Password (OTP) as the default option if they are locked out in the checkout flow; it is the only option in the destination and issuer flows.
- The Visa Account Updater (VAU) update payment account information is now available with Visa Checkout. Issuers who receive standard VAU reports can view **VISACHECKOUT**. Visa Checkout starts processing additional VAU data for **Closed Account** and **Please Call update** types.
- Descriptions about any new or modified features for this version as well as any prior versions are included in the *Visa Checkout Consolidated Release Notes*.
- *Visa Checkout Address Format by Country* replaces Appendix F in prior versions of the *Visa Checkout Integration Guide*.
- The following documents are now included in their respective software development kits (SDKs):
 - *Visa Checkout Android Hybrid Mobile App Integration*
 - *Visa Checkout iOS Hybrid Mobile App Integration*

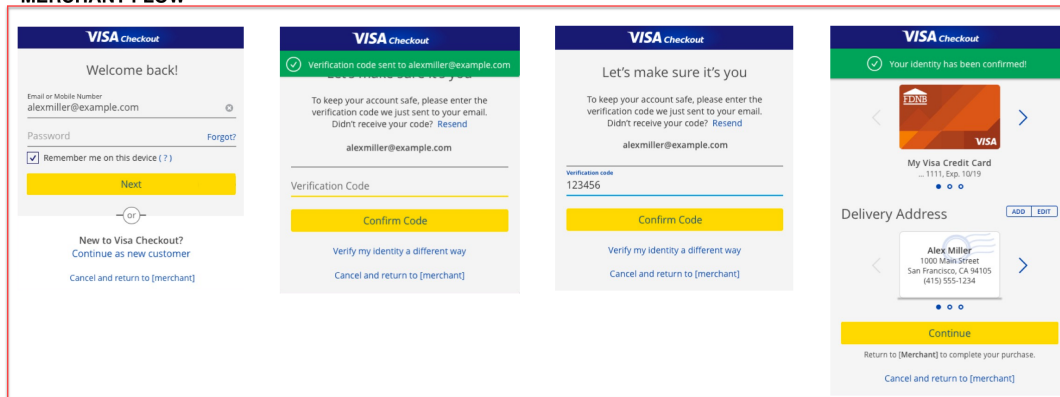
About Login Step Up Authentication with One Time Password

When logging into a Visa Checkout account, a consumer may be prompted to confirm ownership of the account with a challenge. A challenge may require consumers to answer questions that only they know (such as last 4 digits of a card in their account) or to enter a unique code, such as a One Time Password (OTP) sent to an email address that is associated with their account.

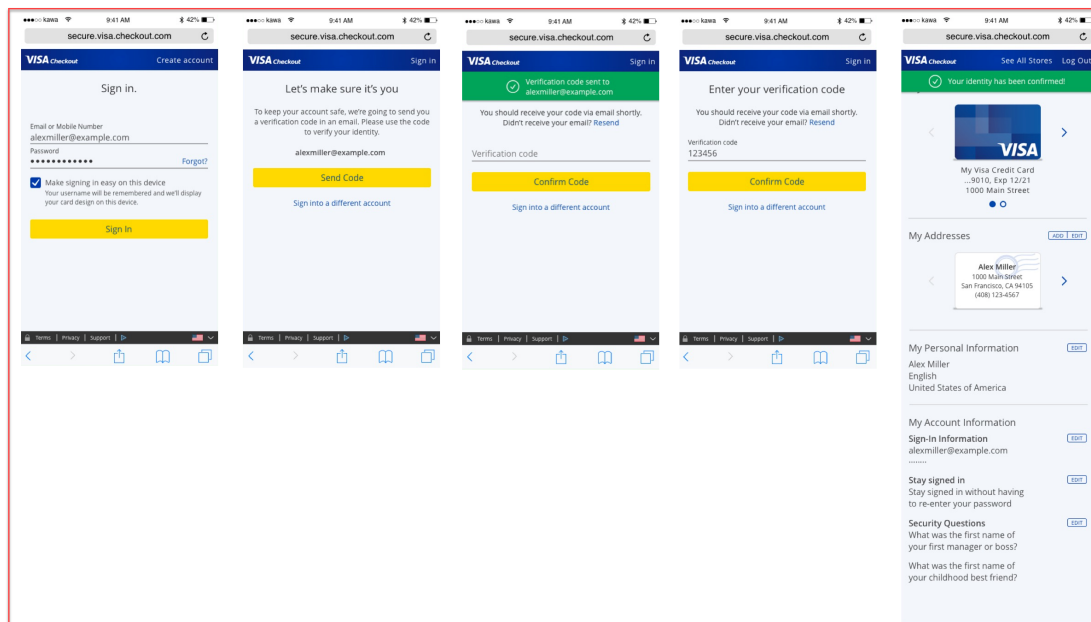
There may be times when a consumer is presented with a challenge question to which they cannot remember the answer. In these cases, after failing the challenge multiple times, the consumer may be systematically locked out of the account.

This feature guides consumers to use the OTP option. For consumers in the checkout flow, OTP is presented as the default option, whereas in the destination and issuer flows, OTP is presented as the only option.

The following figure shows how Visa Checkout processes the checkout login flow for merchants:

MERCHANT FLOW

The following figure shows how Visa Checkout processes the checkout destination and issuer flows:

DESTINATION FLOW

Automatic Updates to Card-on File in Visa Account Updater

Visa Account Updater (VAU) is a service that is designed to address the requirements of recurring payments and episodic transactions. It enables the secure exchange of updated payment account information among participating issuers, acquirers, and qualified account-on-file merchants.

VAU supports account renewal or card replacement; account upgrades or downgrades; portfolio acquisitions and/or mergers; lost/stolen cards; other account closures; and MasterCard-to-Visa conversions. Visa Checkout uses VAU update information to ensure that a user's card information is up to date and that point-of-sale disruptions due to stale account information are minimized.

The VAU update payment account information is now available with Visa Checkout. Issuers who receive standard VAU reports can view **VISACHECKOUT**. Visa Checkout starts processing additional VAU data for **Closed Account** and **Please Call update** types. As existing backlogs are cleared, issuers may notice a short-term increase in the number of cards that have been deleted from Visa Checkout.

When the card issuer is enrolled in Visa Account Updater (VAU) process, the process can update the following information in Visa Checkout:

- Expiration date, when the issuer provides a new expiration date; typically, when the card expires
- Account number, when the issuer provides a replacement account number for a number that is no longer valid
- **Closed Account** type
- **Please Call update** type

All other information associated with the card remains unchanged as a result of this process, which runs daily.

Note

The consumers of a card must update the card expiration date or account number themselves if the card issuer is not enrolled in the VAU process or does not update card information on a timely basis.

What's New in Version 5.1

This topic provides brief descriptions for each new feature and enhancement in version 5.1.

- Billing and shipping for accounts in the following countries are now supported: Kuwait, Qatar, Saudi Arabia, and selected areas of the Ukraine.
- The `RiskData` structure in the consumer information payload for consumers in the United Kingdom, Ireland, France, Spain, Poland, and India contains a field, `firstUseAuthenticated`, which you can use to determine whether you must authenticate the payment instrument on its first use. You only need to authenticate the payment instrument for consumers in these countries if you do not enable the 3-D Secure capability in Visa Checkout for this purpose, or the authentication fails.
- Safari Mini browser usability improvements

About Support for Additional Countries in Visa Checkout

Support for Kuwait, Qatar, Saudi Arabia, and selected areas of the Ukraine is now available for merchants and partners.

Support for billing and shipping accounts in Visa Checkout has been added for the following countries:

- Kuwait
- Qatar
- Saudi Arabia
- Selected areas in the Ukraine

Additionally, partners can onboard merchants from these countries.

Related Content

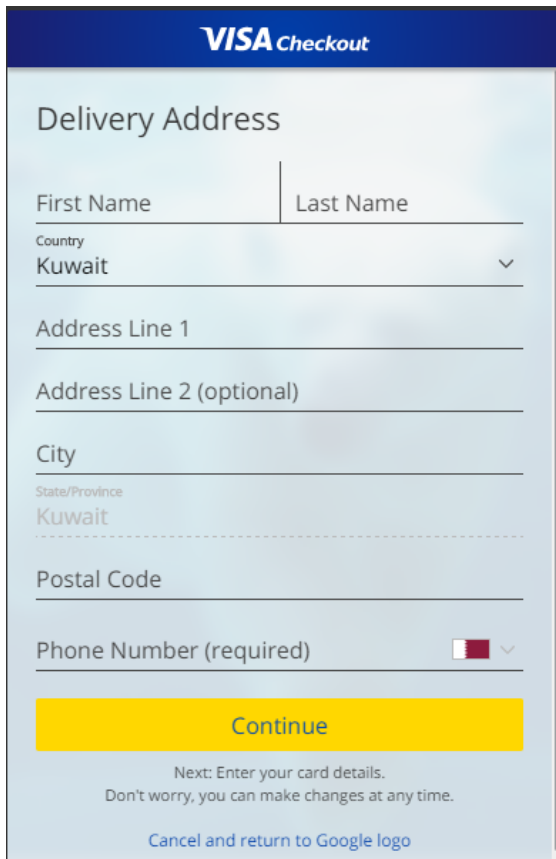
[Kuwait](#)

[Qatar](#)

[Saudi Arabia](#)

[Ukraine](#)

Kuwait



VISA Checkout

Delivery Address

First Name | Last Name

Country
Kuwait

Address Line 1

Address Line 2 (optional)

City

State/Province
Kuwait

Postal Code

Phone Number (required)

Continue

Next: Enter your card details.
Don't worry, you can make changes at any time.

[Cancel and return to Google logo](#)

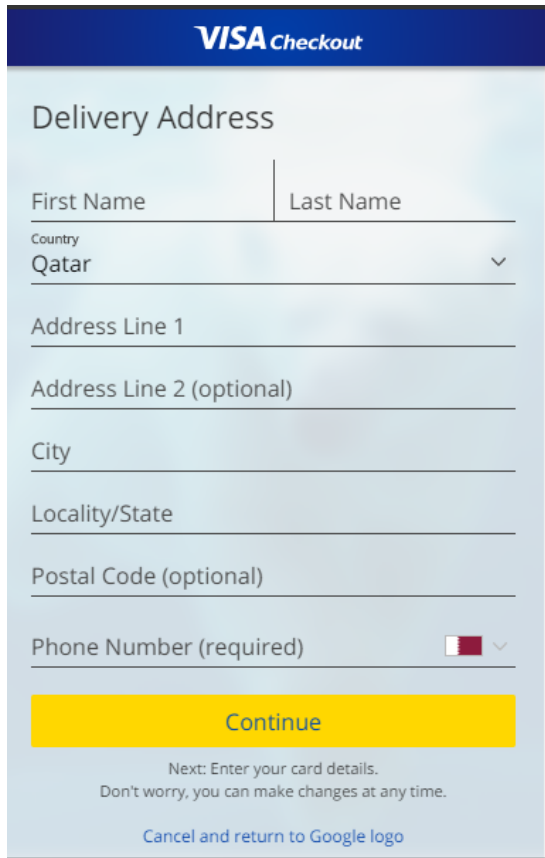
Payload Field	Description of Corresponding Lightbox Field
firstName	<p>(Required) First Name</p> <p>Format: Alphabetic, spaces, and the following characters:</p> <p>· - ' ~ ` , Á á Â â Ã ã Ä ä Å å Ç ç É é Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û ù Ü ü Ý ý Æ æ Aa Cc Ee Ll Nn Ss Zz Zz</p> <p>Maximum 24 characters</p>
lastName	<p>(Required) Last Name</p> <p>Format: Alphabetic, spaces, and the following characters:</p> <p>· - ' ~ ` , Á á Â â Ã ã Ä ä Å å Ç ç É é Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û ù Ü ü Ý ý Æ æ Aa Cc Ee Ll Nn Ss Zz Zz</p> <p>Maximum 24 characters</p>
line1	<p>(Required) Address Line 1</p>

Payload Field	Description of Corresponding Lightbox Field
	<p>Format: Alphabetic, numeric, spaces, and the following characters: ° ° ª . - ' , : _ # / () Á á À à Â â Ã ä Ä å Ç ç É é È è Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û û Ü ü Ý ý Æ æ Å å Ć ć Ę ę Ł ł Ń ń Ś ś Ž ž Žž Maximum 140 characters</p>
line2	<p>(Optional) Address Line 2</p> <p>Format: Alphabetic, numeric, spaces, and the following characters: ° ° ª . - ' , : _ # / () Á á À à Â â Ã ä Ä å Ç ç É é È è Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û û Ü ü Ý ý Æ æ Å å Ć ć Ę ę Ł ł Ń ń Ś ś Ž ž Žž Maximum 140 characters</p>
city	<p>(Required) City</p> <p>Format: Alphabetic, numeric, spaces, and the following characters: - ' . Á á À à Â â Ã ä Ä å Ç ç É é È è Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û û Ü ü Ý ý Æ æ Å å Ć ć Ę ę Ł ł Ń ń Ś ś Ž ž Žž Maximum 100 characters</p>
stateProvinceCode	<p>(Required) State/Province</p> <p>Format: Kuwait automatically appears in this field, which cannot be edited.</p>
postalCode	<p>(Mandatory) Postal Code</p> <p>Format: Alphabetic, numeric, spaces, and hyphens Maximum 16 characters</p>
countryCode	<p>(Required) Country</p> <p>Format: A Visa Checkout-supported ISO-3166-1 alpha-2 standard codes</p>
phone	<p>(Required) Phone Number</p> <p>Format: A valid phone number for the country Maximum 25 characters</p>

Related Content

About Support for Additional Countries in Visa Checkout (Parent Topic)

Qatar



VISA Checkout

Delivery Address

First Name | Last Name

Country
Qatar


Address Line 1

Address Line 2 (optional)

City

Locality/State

Postal Code (optional)

Phone Number (required) 

Continue

Next: Enter your card details.
Don't worry, you can make changes at any time.

[Cancel and return to Google logo](#)

Payload Field	Description of Corresponding Lightbox Field
firstName	<p>(Required) First Name</p> <p>Format: Alphabetic, spaces, and the following characters:</p> <p>· - ' ~ ` , Á á Â â Ã ã Ä ä Ç ç É é Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Æ æ Ú ú Û ù Ü ü Ý ý Æ æ Aa Cc Ee Ll Nn Ss Zz Zz</p> <p>Maximum 24 characters</p>
lastName	<p>(Required) Last Name</p> <p>Format: Alphabetic, spaces, and the following characters:</p> <p>· - ' ~ ` , Á á Â â Ã ã Ä ä Ç ç É é Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Æ æ Ú ú Û ù Ü ü Ý ý Æ æ Aa Cc Ee Ll Nn Ss Zz Zz</p> <p>Maximum 24 characters</p>
line1	<p>(Required) Address Line 1</p>

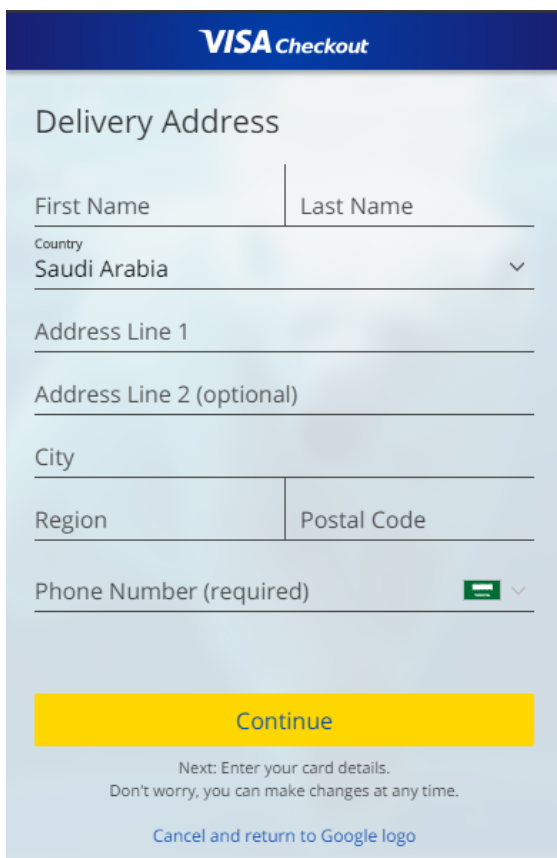
Payload Field	Description of Corresponding Lightbox Field
	<p>Format: Alphabetic, numeric, spaces, and the following characters:</p> <p>° º ª . - ' , : _ # / () Á á À à Â â Ã ã Ä ä Å å Ç ç É é È è Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û û Ü ü Ý ý Æ æ Aa Cc Ee Ll Nn Ss Zz Zz</p> <p>Maximum 140 characters</p>
line2	<p>(Optional) Address Line 2</p> <p>Format: Alphabetic, numeric, spaces, and the following characters:</p> <p>° º ª . - ' , : _ # / () Á á À à Â â Ã ã Ä ä Å å Ç ç É é È è Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û û Ü ü Ý ý Æ æ Aa Cc Ee Ll Nn Ss Zz Zz</p> <p>Maximum 140 characters</p>
city	<p>(Required) City</p> <p>Format: Alphabetic, numeric, spaces, and the following characters:</p> <p>- ' . Á á À à Â â Ã ã Ä ä Å å Ç ç É é È è Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û û Ü ü Ý ý Æ æ Aa Cc Ee Ll Nn Ss Zz Zz</p> <p>Maximum 100 characters</p>
stateProvinceCode	<p>(Required) Locality/State</p> <p>Format: Alphabetic, numeric, spaces, and the following characters:</p> <p>- ' . Á á À à Â â Ã ã Ä ä Å å Ç ç É é È è Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û û Ü ü Ý ý Æ æ Aa Cc Ee Ll Nn Ss Zz Zz</p> <p>Maximum 100 characters</p>
postalCode	<p>(Optional) Postal Code</p> <p>Format: Alphabetic, numeric, spaces, and hyphens</p> <p>Maximum 16 characters</p>

Payload Field	Description of Corresponding Lightbox Field
countryCode	<p><i>(Required)</i> Country</p> <p>Format: A Visa Checkout-supported ISO-3166-1 alpha-2 standard codes.</p> <p>For more information see "Market Requirements" in the <i>Visa Checkout Integration Guide</i>.</p>
phone	<p><i>(Required)</i> Phone Number</p> <p>Format: A valid phone number for the country</p> <p>Maximum 25 characters</p>

Related Content

[About Support for Additional Countries in Visa Checkout \(Parent Topic\)](#)

Saudi Arabia



The screenshot shows the Visa Checkout interface for entering a delivery address in Saudi Arabia. The form includes fields for First Name, Last Name, Country (set to Saudi Arabia), Address Line 1, Address Line 2 (optional), City, Region, Postal Code, and Phone Number (required). A yellow 'Continue' button is at the bottom, followed by instructions to enter card details and a link to cancel and return to the Google logo.

VISA Checkout

Delivery Address

First Name | Last Name

Country
Saudi Arabia

Address Line 1

Address Line 2 (optional)

City

Region | Postal Code

Phone Number (required)

Continue

Next: Enter your card details.
Don't worry, you can make changes at any time.

[Cancel and return to Google logo](#)

Payload Field	Description of Corresponding Lightbox Field
firstName	<p>(Required) First Name</p> <p>Format: Alphabetic, spaces, and the following characters:</p> <p>. - ' ~ ` , Á á Â â Ã ä Ä å Ç ç É é Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û ü Ü ü Ý ý Æ æ Aa Cc Ee Ll Nn Ss Zz Zz</p> <p>Maximum 24 characters</p>
lastName	<p>(Required) Last Name</p> <p>Format: Alphabetic, spaces, and the following characters:</p> <p>. - ' ~ ` , Á á Â â Ã ä Ä å Ç ç É é Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û ü Ü ü Ý ý Æ æ Aa Cc Ee Ll Nn Ss Zz Zz</p> <p>Maximum 24 characters</p>
line1	<p>(Required) Address Line 1</p> <p>Format: Alphabetic, numeric, spaces, and the following characters:</p> <p>° ° a . - ' , : _ # / () Á á À à Â â Ã ä Ä å Ç ç É é Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û ü Ü ü Ý ý Æ æ Aa Cc Ee Ll Nn Ss Zz Zz</p> <p>Maximum 140 characters</p>
line2	<p>(Optional) Address Line 2</p> <p>Format: Alphabetic, numeric, spaces, and the following characters:</p> <p>° ° a . - ' , : _ # / () Á á À à Â â Ã ä Ä å Ç ç É é Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û ü Ü ü Ý ý Æ æ Aa Cc Ee Ll Nn Ss Zz Zz</p> <p>Maximum 140 characters</p>
city	<p>(Required) City</p> <p>Format: Alphabetic, numeric, and spaces</p> <p>Maximum 100 characters</p>
stateProvinceCode	<p>(Required) Region</p> <p>Format: Alphabetic; a valid 2-character state code</p>
postalCode	<p>(Mandatory) Postal Code</p> <p>Format: Alphabetic, numeric, spaces, and hyphens</p>

Payload Field	Description of Corresponding Lightbox Field
	Maximum 16 characters
countryCode	<p><i>(Required)</i> Country</p> <p>Format: A Visa Checkout-supported ISO-3166-1 alpha-2 standard codes.</p> <p>For more information see Market Requirements in the <i>Visa Checkout Integration Guide</i>.</p>
phone	<p><i>(Required)</i> Phone Number</p> <p>Format: A valid phone number for the country</p> <p>Maximum 25 characters</p>

Related Content

[About Support for Additional Countries in Visa Checkout \(Parent Topic\)](#)

Ukraine

Cancel **VISA Checkout**

Add Address

First Name Last Name

Country
Ukraine

Address Line 1

Address Line 2

Address Line 3 (optional)

City

Region

Postal Code

Contact Information

Phone Number (required)

Add Address

VISA Checkout

Адреса доставки

Ім'я Прізвище

Країна
Україна

Адреса (рядок 1)

Адреса (рядок 2)

Адреса (рядок 3, необов'язково)

Місто

Регіон

Поштовий індекс

Номер телефону (обов'язково)

Продовжити

Далі: введіть реквізити картки.
Не турбуйтеся, їх можна змінити у будь-який час.

Payload Field	Description of Corresponding Lightbox Field
firstName	<p>(Required) First Name</p> <p>Format: Alphabetic, spaces, and the following characters:</p> <p> . - ' ~ ` , Á á Â â Ã ä Ä å Ç ç É é Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û ù Ü ü Ý ý Æ æ Ȧ Ć Ć Ė Ė Ł ł Ń ń Ś ś Ź ź Ż ż </p> <p>Maximum 24 characters</p> <p>Note</p> <p>Characters are only allowed in English. No Ukrainian input is allowed.</p>
lastName	<p>(Required) Last Name</p> <p>Format: Alphabetic, spaces, and the following characters:</p> <p> . - ' ~ ` , Á á Â â Ã ä Ä å Ç ç É é Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û ù Ü ü Ý ý Æ æ Ȧ Ć Ć Ė Ė Ł ł Ń ń Ś ś Ź ź Ż ż </p> <p>Maximum 24 characters</p> <p>Note</p> <p>Characters are only allowed in English. No Ukrainian input is allowed.</p>
line1	<p>(Required) Address Line 1</p> <p>Format: Alphabetic, numeric, spaces, and the following characters:</p> <p> ° ° ª . - ' , : _ # / () Á á À à Â â Ã ä Ä å Ç ç É é Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û ù Ü ü Ý ý Æ æ Ȧ Ć Ć Ė Ė Ł ł Ń ń Ś ś Ź ź Ż ż </p> <p>Maximum 140 characters</p> <p>Note</p> <p>Characters are only allowed in English. No Ukrainian input is allowed.</p>
line2	<p>(Required) Address Line 2</p> <p>Format: Alphabetic, numeric, spaces, and the following characters:</p> <p> ° ° ª . - ' , : _ # / () Á á À à Â â Ã ä Ä å Ç ç É é Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û ù Ü ü Ý ý Æ æ Ȧ Ć Ć Ė Ė Ł ł Ń ń Ś ś Ź ź Ż ż </p> <p>Maximum 140 characters</p>

Payload Field	Description of Corresponding Lightbox Field
	<p>Note</p> <p>Characters are only allowed in English. No Ukrainian input is allowed.</p>
line3	<p>(Optional) Address Line 3</p> <p>Format: Alphabetic, numeric, spaces, and the following characters:</p> <p>° ° ª · - ' , : _ # / () Á á À à Â â Ã ã Ä ä Å å Ç ç É é È è Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û û Ü ü Ý ý Æ æ Ą Ć ć Ę ę Ł ł Ń ń Ś ś Ž ž Ž ž</p> <p>Maximum 140 characters</p> <p>Note</p> <p>Characters are only allowed in English. No Ukrainian input is allowed.</p>
city	<p>(Required)City</p> <p>Format: Alphabetic, numeric, spaces, and the following characters:</p> <p>- ' . Á á À à Â â Ã ã Ä ä Å å Ç ç É é È è Ê ê Ë ë Í í Î î Ï ï Ñ ñ Ó ó Ô ô Õ õ Œ œ Ú ú Û û Ü ü Ý ý Æ æ Ą Ć ć Ę ę Ł ł Ń ń Ś ś Ž ž Ž ž</p> <p>Maximum 100 characters</p> <p>Note</p> <p>Characters are only allowed in English. No Ukrainian input is allowed.</p>
stateProvinceCode	<p>(Required) Region</p> <p>Note</p> <p>Some regions in the Ukraine are not yet available. Sanctioned region of Crimea is currently not supported.</p>
postalCode	<p>(Required) Postal Code</p> <p>Format: Alphabetic, numeric, spaces, and hyphens</p> <p>Maximum 16 characters</p> <p>Note</p> <p>Characters are only allowed in English. No Ukrainian input is allowed.</p>

Payload Field	Description of Corresponding Lightbox Field
countryCode	<p><i>(Required)</i> Country</p> <p>Format: A Visa Checkout-supported ISO-3166-1 alpha-2 standard codes.</p> <p>For more information see “Market Requirements” in the <i>Visa Checkout Integration Guide</i>.</p>
phone	<p><i>(Required)</i> Phone Number</p> <p>Format: A valid phone number for the country</p> <p>Maximum 25 characters</p> <p>Note</p> <p>Characters are only allowed in English. No Ukrainian input is allowed.</p>

Related Content

[About Support for Additional Countries in Visa Checkout \(Parent Topic\)](#)

About First Use Authentication

Authentication has been enhanced. Whenever a consumer performs a transaction for the first time, a new field returns additional information in a field.

Related Content

[Strong Authentication for European Countries](#)

[Enabling Strong Authentication on First Use of a Card](#)

[Risk Properties](#)

Strong Authentication for European Countries

If you are a merchant in United Kingdom, France, Spain, Ireland, or Poland, you must allow issuers to authenticate consumers from these countries on the first use of a card by the consumer in Visa Checkout. Contact your Visa Checkout representative to enable and configure Verified by Visa for Visa cards, SecureCode for Mastercard cards, and Safekey for American Express cards, to perform authentication when a consumer's card is first used. If you fail to enable Verified by Visa, SecureCard, or Safekey for this purpose, you are responsible for allowing the issuer to authenticate the consumer on a card's first use.

Related Content

[About First Use Authentication \(Parent Topic\)](#)

Enabling Strong Authentication on First Use of a Card

When configured for 3-D Secure, authentication generally takes place on each transaction within the Visa Checkout experience. In each of the following designated countries, however, merchants and partners must allow issuers to authenticate consumers on the first use of the card in Visa Checkout:

- France
- India
- Ireland
- Poland
- Spain
- United Kingdom

Visa Checkout supports authentication on first use of Visa, Mastercard, and American Express cards in these designated countries. Merchants and partners can configure their Visa Checkout account to use 3-D Secure to perform a consumer authentication check when Visa, Mastercard, and American Express cards are first used in Visa Checkout in these designated countries.

Merchants or partners can configure 3-D Secure for Visa, Mastercard, and American Express in Visa Checkout to apply on first use only. Alternatively, merchants or partners can configure 3-D Secure for Visa, Mastercard, and American Express for every transaction only. Merchants and partners can also configure 3-D Secure for Visa, Mastercard, and American Express in Visa Checkout on first use and for every transaction. The Suppress Challenge override (`threeDSSuppressChallenge`) setting is ignored and the issuer authentication step-up, if available, is always presented.

When configured to authenticate on first use of a card, authentication fields are returned in the consumer information payload when a consumer in a designated country first uses a card in Visa Checkout, even when 3-D Secure has not been activated for general use.

Important

If merchants or partners do not have a Visa Checkout profile for 3-D Secure configured to enable the required consumer authentication during a first Visa Checkout transaction, or if the authentication fails, the merchant or partner must perform the required consumer authentication in their own checkout experience.

When consumer authentication is performed on first use, the `firstUseAuthenticated` field is returned in the consumer information payload.

Related Content

[About First Use Authentication \(Parent Topic\)](#)

Risk Properties

Property	Description
advice	<p>Not currently available. Risk advice for use with your fraud model.</p> <p>Important</p> <p>The returned value indicates a category of risk and is strictly advisory. Its value should only be used in conjunction with your own experience, models, and risk tolerance to determine whether to complete the transaction.</p> <p>Format: It is one of the following values:</p> <ul style="list-style-type: none"> • LOW - Lower than a medium level of risk anticipated • MEDIUM - Medium level of risk anticipated • HIGH - Higher than a medium level of risk anticipated • UNAVAILABLE - No information available <p>Example: "advice" : "LOW"</p> <p>Since 2.0</p>
score	<p>Risk score; 0 indicates unavailable. Not currently available; always 0. The higher the score, the higher the perceived risk.</p> <p>Important</p> <p>The returned value indicates a relative value of risk and is strictly advisory. Use this value in conjunction with your own experience, models, and risk tolerance to determine whether to complete the transaction.</p> <p>Format: Numeric; whole value between 0 and 99, inclusive</p> <p>Example: "score" : "0"</p> <p>Since 2.0</p>
avsResponseCode	<p>Address verification system response code.</p> <p>Note</p> <p>Although AVS is verified when a card is added to the Visa Checkout account, verification information may not always be available in the consumer information payload; in which case, 'unavailable (0)' is returned for the value.</p> <p>Format:Alphanumeric</p> <p>Example: "avsResponseCode" : "V"</p> <p>Since 2.0</p>
cvvResponseCode	<p>Card validation verification system response code.</p>

Property	Description
	<p>Note</p> <p>Although a card security code, e.g. CVV2, is verified when a card is added to the Visa Checkout account, verification information may not always be available in the consumer information payload; in which case, 'unavailable (0)' is returned for the value.</p> <p>Format:Alphanumeric</p> <p>Example: "cvvResponseCode" : "M"</p> <p>Since 2.0</p>
ageOfAccount	<p>Number of days since the Visa Checkout account was created, if applicable. You can use it for fraud evaluation; it may not be used for any secondary purpose except as permitted under your Visa Checkout services agreement or with consumer consent.</p> <p>Format:Numeric</p> <p>Example: "ageOfAccount" : 300</p> <p>Since 2.8</p>
firstUseAuthenticated	<p>Whether a payment instrument has previously been authenticated during first use in Visa Checkout. This field only appears for consumers in designated countries..</p> <p>Format: It is one of the following Boolean values:</p> <ul style="list-style-type: none"> • <code>true</code> - The payment instrument has previously been authenticated during first use in Visa Checkout. • <code>false</code> - The payment instrument has not been authenticated during first use in Visa Checkout. <p>Example: "firstUseAuthenticated" : false</p> <p>Since 5.1</p>

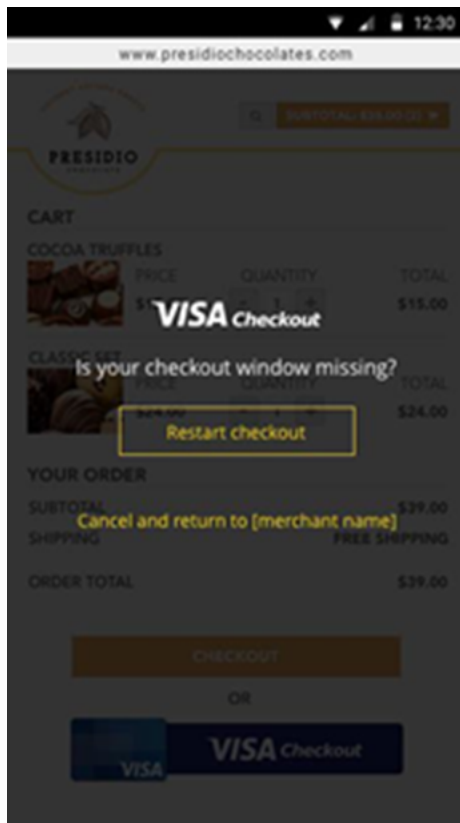
Related Content

[About First Use Authentication \(Parent Topic\)](#)

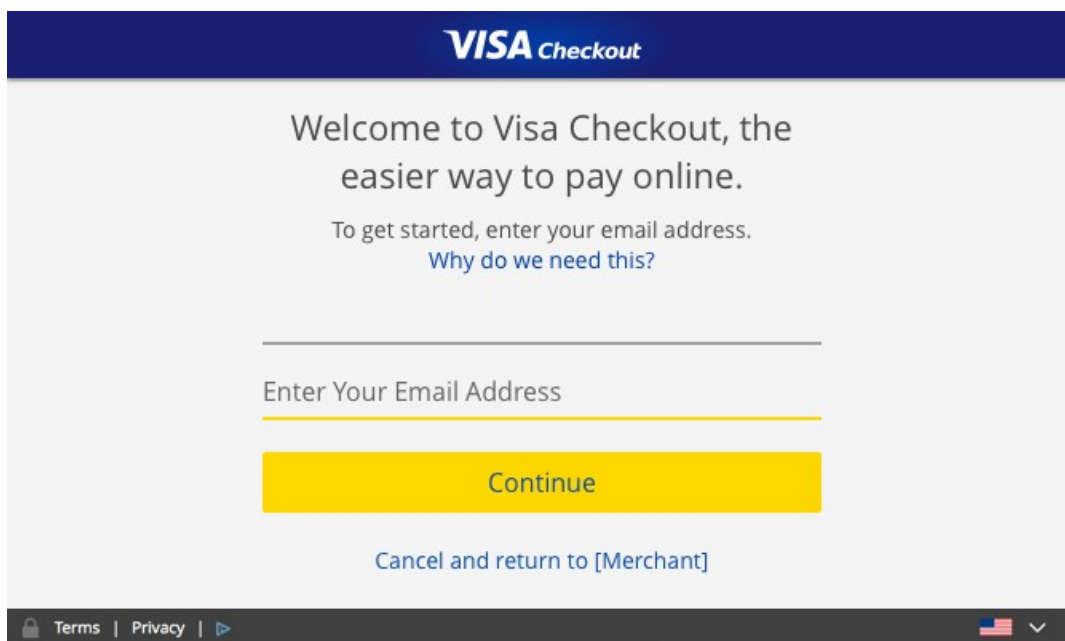
Safari Mini Browser

The following enhancements extend the Safari mini browser experience to mobile:

- Dark ghosting layer appears on the Merchant page when the Safari mini browser opens with the following changes:
 - The **Restart Checkout** button on the ghosting layer enables users to restart a Visa Checkout session and to brings the Safari mini browser tab into focus, which makes it easy to find the tab.
 - The **Cancel and return** button on the ghosting layer enables users to return to the Merchant page and automatically close the Visa Checkout mini browser tab.

Figure 17.1. Gost Layer on Mobile

- Mini browser experience opens in a new tab on the Safari mini browser

Figure 17.2. Safari Browser Experience on a Tablet

What is New in Version 5.0

- When calling Update Payment Info, you must specify at least one order event to identify the order ID. The `eventType` in the `orderInfo` structure must be `Other` subsequent to a request in which the `eventType` is `Confirm` or `Confirm_COF`.

What is New in Version 4.7

- You can now set the currency format at the profile level.
- Visa Checkout supports transactions for the country of India starting with release 4.6.

What is New in Version 4.6

- The default button `height` and `width` have new values.
- The consumer information payload contains a new field, `newUser`, which is `true` if the consumer enrolled in Visa Checkout with this transaction and has not previously enrolled in Visa Checkout.
- You must specify the `orderId` parameter when using Update Payment Info and Update Payment Info Pixel Image for new integrations; it is recommended for all integrations.

What is New in Version 4.5

- An interactive checkout button is available for streamlined checkouts.
- For merchants in United Kingdom, France, Spain, , or Poland, your Visa Checkout representative can enable and configure Safekey for American Express cards in addition to Verified by Visa for Visa cards and SecureCode for Mastercard cards. Allowing issuers to authenticate consumers from these countries on the first use of a card by the consumer in Visa Checkout is already a requirement; Safekey support in Visa Checkout for this purpose is new with this release.

What is New in Version 4.4

- The consumer information payload contains an additional field, `externalClientID`, to identify a partner's merchant.
- A partner must specify the `externalClientID` in the Get Payment Info API to obtain consumer information payloads on behalf of their merchants.
- The following fields have been added to the consumer information payload for addresses in Mexico: `neighborhood`, `county`, and `pointOfReference`
- Address fields have been enhanced to support more characters. This document, the Visa Checkout Integration Guide, provides country-specific information about the characters that the consumer can enter for each address field, as well as the mapping of lightbox address input fields to related address fields in the consumer information payload, which are returned.

What is New in Version 4.3

- Visa Checkout billing and shipping are supported for the following additional countries:
 - France
 - Ireland
 - Poland
 - Spain
 - United Kingdom
- If you are a merchant in United Kingdom, France, Spain, , or Poland, you must allow issuers to authenticate consumers from these countries on the first use of a card by the consumer in Visa Checkout. Contact your Visa Checkout representative to enable and configure Verified by Visa for Visa cards and SecureCode for Mastercard cards to perform authentication when a consumer's card is first used. If you fail to enable Verified by Visa and SecureCard for this purpose, you are responsible for allowing the issuer to authenticate the consumer on a card's first use. If you accept American Express cards from these countries, you must allow the authentication of the consumer outside of Visa Checkout on every transaction; American Express Safekey support is not currently provided by Visa Checkout.

What is New in Version 4.2

- Currency amount fields can be specified with up 9 digits before a decimal point and 4 digits after the decimal point, enabling a maximum amount of 999999999.9999 to be specified.
- A `v.init` option, `currencyFormat`, specifies the display format for a currency associated with the **Pay** button in the lightbox.
- The **Pay** button in the lightbox can be used with any currency supported by Visa Checkout.

What is New in Version 4.1

- This version of Visa Checkout is primarily a maintenance release.

What is New in Version 3.9

- Two new payment types are supported for Brazil: `ELECTRON` and `ELO`.
- The first line of a Brazilian address is subdivided into 3 fields within the consumer information payload: street number (`streetNumber`), street name (`streetName`), and additional location information (`additionalLocation`); the complete first line (`line1`) remains available.

What is New in Version 3.8

- To specify that a transaction has been updated using a card on file, you specify `Confirm_COF` for the event type in calls to the Update Payment Info API or in the Update Payment Info Pixel Image.

What is New in Version 3.6

- Visa Checkout provides a variety of acceptance marks. For more information, see [Getting Started With Visa Checkout](#).

What is New in Version 3.5

- A new field, `signatureVerification`, which identifies whether the PARes was validated successfully, has been added to the `threeDS` structure in the consumer information payload.
- The review and display name fields accept the following characters, in addition to alphabetic characters, spaces, and digits: `! @ # $ % ^ & * - ' ? . .`
- Currency amounts have expanded from a maximum of 7 digits before the decimal point to 9 digits. The optional decimal point and maximum 2 digits after the decimal point remain unchanged. The maximum value for these fields is 999999999.99, regardless of currency.
- Spanish has been added for the following locales: Argentina, Chile, Colombia, Mexico, and Peru. Portuguese has been added for Brazil. The `en_` versions of these locales are no longer available.

What is New in Version 3.4

- Visa Checkout supports tokenization of eligible Visa cards in the US. Tokens are replacement values for Primary Account Numbers (PANs). If you have been enabled by Visa Checkout to receive tokens, which are called Digital Account Numbers when displayed to consumers, the payment instrument returned in the consumer information payload may contain token information instead of account information, for example the PAN and corresponding CVV is replaced by a token and cryptogram. Your processor must be able to accept token information as a prerequisite for you to accept tokens from Visa Checkout.

What is New in Version 3.3

- The customer information for Brazilian consumers contains an additional field, `userPersonalId`, which is used for tax purposes.

What is New in Version 3.2

- An additional Verified by Visa (VbV) attribute, `threeDSSuppressChallenge`, has been added to the `V.init` structure to suppress the VbV consumer authentication prompt. Merchants that implement Verified by Visa can use this feature to eliminate the consumer prompt during checkout; in which case, VbV authentication is performed only when it is possible to do so without the consumer prompt.
- You can update multiple order info and/or pay info structures in a single call to the Update Payment API.

What is New in Version 3.1

This version is primarily a maintenance release.

What is New in Version 3.0

From a Visa Checkout integration perspective, this version is a maintenance release; new features do not require changes to your integration. See the release notes for complete information. Partners should refer to the Client API Reference, Partner Edition, for changes that might affect onboarding and relationship management.

What is New in Version 2.9

The following features are introduced with Version 2.9:

- The call ID, which identifies a transaction that has been initiated, can be set to expire after a number of days. The expiration of the call ID only affects the ability to use the Get Payment Data API, which returns the transaction information for a completed payment request; no other operations are affected. After the call ID expires, the consumer information for the payment cannot be retrieved by this API. By default, the call ID does not expire. Contact the Visa Checkout Support Center to request a different expiration.
- The Update Payment Info Pixel Image no longer requires an `token` parameter, which simplifies the use of the pixel image.
- The consumer information payload now contains the person's first name and last name for shipping and billing addresses in addition to the full name of the person; previously, only the full name was returned. Also, the full name on the consumer and full name on the card are now returned in addition to the first and last names for the consumer and the name on the card; previously, just the first and last names were returned separately for each.

What is New in Version 2.8

The following features are introduced with Version 2.8:

- Billing for accounts in the following countries are now supported: Argentina, Australia, Brazil, Canada, China, Chile, Colombia, Hong Kong, Malaysia, Mexico, New Zealand, Peru, Singapore, South Africa, United Arab Emirates, and United States of America.
- Shipping is supported for all non-restricted countries. You may want to explicitly specify countries you ship to in your profile or in the `V.init` structure, because a consumer can choose any non-restricted country by default.

What is New in Version 2.7

The following features are introduced with Version 2.7:

- Billing for accounts in the following countries are now supported: Argentina, Australia, Brazil, Canada, China, Chile, Colombia, Hong Kong, Malaysia, Mexico, New Zealand, Peru, Singapore, South Africa, United Arab Emirates, and United States of America.

- Shipping is supported for all non-restricted countries. You may want to explicitly specify countries you ship to in your profile or in the `v.init` structure, because a consumer can choose any non-restricted country by default.

Revision History

- Version 2.0, April 29, 2014
- Version 2.1, June 10, 2014
- Version 2.2, July 8, 2014
- Version 2.3, August 5, 2014
- Version 2.4, September 2, 2014
- Version 2.5, October 7, 2014
- Version 2.6, November 11, 2014
- Version 2.7, January 27, 2015
- Version 2.8, March 31, 2015
- Version 2.9, April 28, 2015
- Version 3.0, May 29, 2015
- Version 3.1, June 30, 2015
- Version 3.2, July 28, 2015
- Version 3.3, August 25, 2015
- Version 3.4, September 29, 2015
- Version 3.5, October 27, 2015
- Version 3.6, January 26, 2016
- Version 3.8, March 22, 2016
- Version 3.9, April 19, 2016
- Version 4.1, June 21, 2016
- Version 4.2, July 19, 2016
- Version 4.3, August 30, 2016
- Version 4.4, September 20, 2016
- Version 4.5, October 25, 2016
- Version 4.6, January 24, 2017
- Version 4.7, February 28, 2017
- Version 5.0, May 2, 2017
- Version 5.1, May 24, 2017
- Version 5.2, June 28, 2017
- Version 5.3, July 26, 2017
- Version 5.4, August 23, 2017
- Version 5.5, September 27, 2017
- Version 5.6, November 1, 2017
- Version 5.7, December 7, 2017
- Version 5.8, January 24, 2018

- Version 6.0, March 28, 2018
- Version 6.4, July 25, 2018
- Version 6.5, August 22, 2018
- Version 6.6, September 26, 2018
- Version 6.7, October 31, 2018
- Version 19.01, January 23, 2019