

## Accepting 3-D Secure payments

### Overview

[Card payments](#) via the Checkout can also be used with 3-D Secure authentications. 3-D Secure 1 and 2 are supported, with automatic fallback in case the card is not enrolled for 3-D Secure 2.

### Customer requirements

To process 3-D Secure authentications, it is required to add a customer to the Checkout creation call. Customer records can be created and managed via the [Customer APIs](#). The table below details the required fields and their formats for creating a customer record to be compatible with 3-D Secure.

**Note:** You should make sure that all required fields are provided in their correct formats, else the page would result in a failure once the Customer tries to submit a payment with it. The field requirements below take priority over the API schema described in the [Customer API reference](#).

Required = R, Optional = O, Conditional = C

Field name	Description	Status	Observation	Specification
<code>billing.address_1</code>	Customer's billing address information.	R		String (50)
<code>billing.address_2</code>	Customer's billing address information.	C	Required if information is available.	String (50)
<code>billing.address_3</code>	Customer's billing address information.	C	Required if information is available.	String (50)
<code>billing.city</code>	Customer's city on their billing address.	R		String (50)
<code>billing.country_code</code>	Customer's alpha 2-digit ISO 3166 country code. (e.g., United States = US)	R	Customer's alpha 2-digit ISO 3166 country code.	String (2)
<code>billing.first_name</code>	Customer's billing first name.	R	Required in case that companyName is not provided.	String (50)
<code>billing.last_name</code>	Customer's billing last name.	R	Required in case that companyName is not provided.	String (50)
<code>billing.phone</code>	Customer's phone number for billing address. This should be unformatted without hyphens. (e.g., 4422345678)	C	Required if information is available. This should be unformatted without hyphens.	String (20)

Field name	Description	Status	Observation	Specification
<code>billing.postal_code</code>	Customer's postal code of their billing address.	C		String (10)
<code>billing.state</code>	Customer's state or province of their billing address. Should be the country subdivision code defined in ISO 3166-2. If this field is not provided, the 3DS service will try to automatically populate it, based on the <code>billing.countryCode</code> and <code>billing.postalCode</code> values.	C	Required if information is available.	String (50)
<code>company_name</code>	Company name.	C	If <code>billing.firstName</code> or <code>billing.lastName</code> are not provided.	String (100)
<code>company_registration_number</code>	Unique identifier of the company, recognized by the government. Known as CoC (Chamber of Commerce) number in some countries.	O		String
<code>date_of_birth</code>	The date of birth of a person, 10 characters, ISO-8601 (YYYY-MM-DD).	O		String (10)
<code>email_address</code>	Customer's email address.	R		String (255)
<code>entity_id</code>	The entityId obtained from Verifone Central. The Entity ID can be found in Verifone Central under <i>Administration</i> → <i>Organisations</i> . The 'Organisation ID' listed is the Entity ID.	R		String
<code>phone_number</code>	Cardholder's mobile phone number.	C		Number (25)

Field name	Description	Status	Observation	Specification
<code>shipping.address_1</code>	Customer's shipping address information.	C	Required if information is available.	String (50)
<code>shipping.address_2</code>	Customer's shipping address information.	C	Required if information is available.	String (50)
<code>shipping.address_3</code>	Customer's shipping address information.	C	Required if information is available.	String (50)
<code>shipping.city</code>	Customer's city of their shipping address.	C	Required if information is available.	String (50)
<code>shipping.first_name</code>	Customer's shipping first name.	O		
<code>shipping.last_name</code>	Customer's shipping first name.	O		
<code>shipping.country_code</code>	Customer's alpha 2-digit ISO 3166 country code. (e.g., United States = US)	C	Required if information is available.	String (2)
<code>shipping.postal_code</code>	Customer's postal code of their shipping address.	C	Required if information is available.	String (10)
<code>shipping.state</code>	Customer's state or province of their shipping address. (e.g., Ohio = OH, Texas = TX) Should be the country subdivision code defined in ISO 3166-2. If this field is not provided, the 3DS service will try to automatically populate it, based on the <code>shipping.countryCode</code> and <code>shipping.postalCode</code> values.	C	Required if information is available.	String (3)
<code>title</code>	<code>mr</code> or <code>ms</code>	O		String
<code>work_phone</code>	Customer's work phone number.	C	Required if information is available.	Number (25)

Here is an example request with the required fields for creating a customer for 3-D Secure:

<https://verifone.cloud/docs/online-payments/checkout/overview/card/accepting-3d-secure>

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```
{
  "billing": {
    "address_1": "Street 1",
    "city": "Amsterdam",
    "country_code": "NL",
    "first_name": "John",
    "last_name": "Gilmore",
    "postal_code": "1016 AB",
    "state": "NH"
  },
  "email_address": "john.gilmore@test.com",
  "entity_id": "{entityId}",
  "phone_number": "31123456789",
}
```

The response for creating the customer will look like this:

```
{
  "id": "string",
  "billing": {
    "address_1": "Street 1",
    "city": "Amsterdam",
    "country_code": "NL",
    "first_name": "John",
    "last_name": "Gilmore",
    "postal_code": "1016 AB",
    "state": "NH"
  },
  "created_at": "2020-07-01",
  "email_address": "john.gilmore@test.com",
  "entity_id": "{entityId}",
  "phone_number": "31123456789",
  "updated_at": "2020-07-01"
}
```

## Required 3-D Secure fields

To configure Checkout for accepting 3-D Secure card payments, the following fields are required in addition to the fields required for a standard [Card payment](#):

- `configurations.card.threed_secure.threeds_contract_id` - This ID can be found in the portal or given to you by a Verifone employee. This object stores the credentials for connecting to the 3-D Secure service.
- `configurations.card.threed_secure.enabled` - Has to be set to `true`.
- `configurations.card.threed_secure.transaction_mode`

The complete list of 3-D Secure and other optional fields can be found in the [Create Checkout API](#).

Example request:

```
{
  "amount": 9998,
  "currency_code": "EUR",
  "entity_id": "{{entity_id}}",
  "customer": "{{customer_id}}",
  "configurations": {
    "card": {
      "payment_contract_id": "{{payment_contract_id}}",
      "threed_secure": {
        "enabled": true,
        "threeds_contract_id": "{{3ds_contract_id}}",
        "total_items": "01",
        "transaction_mode": "S"
      }
    }
  },
  "merchant_reference": "ORDER-1234",
  "return_url": "{{merchant_return_url}}"
}
```

## Handling responses

Upon completion of a 3DS checkout, a redirection occurs including an additional query parameter "authentication\_id" which can be used to retrieve the 3DS complete details from the 3DS service.

See [Handling card responses](#) for all possible Checkout outcomes.