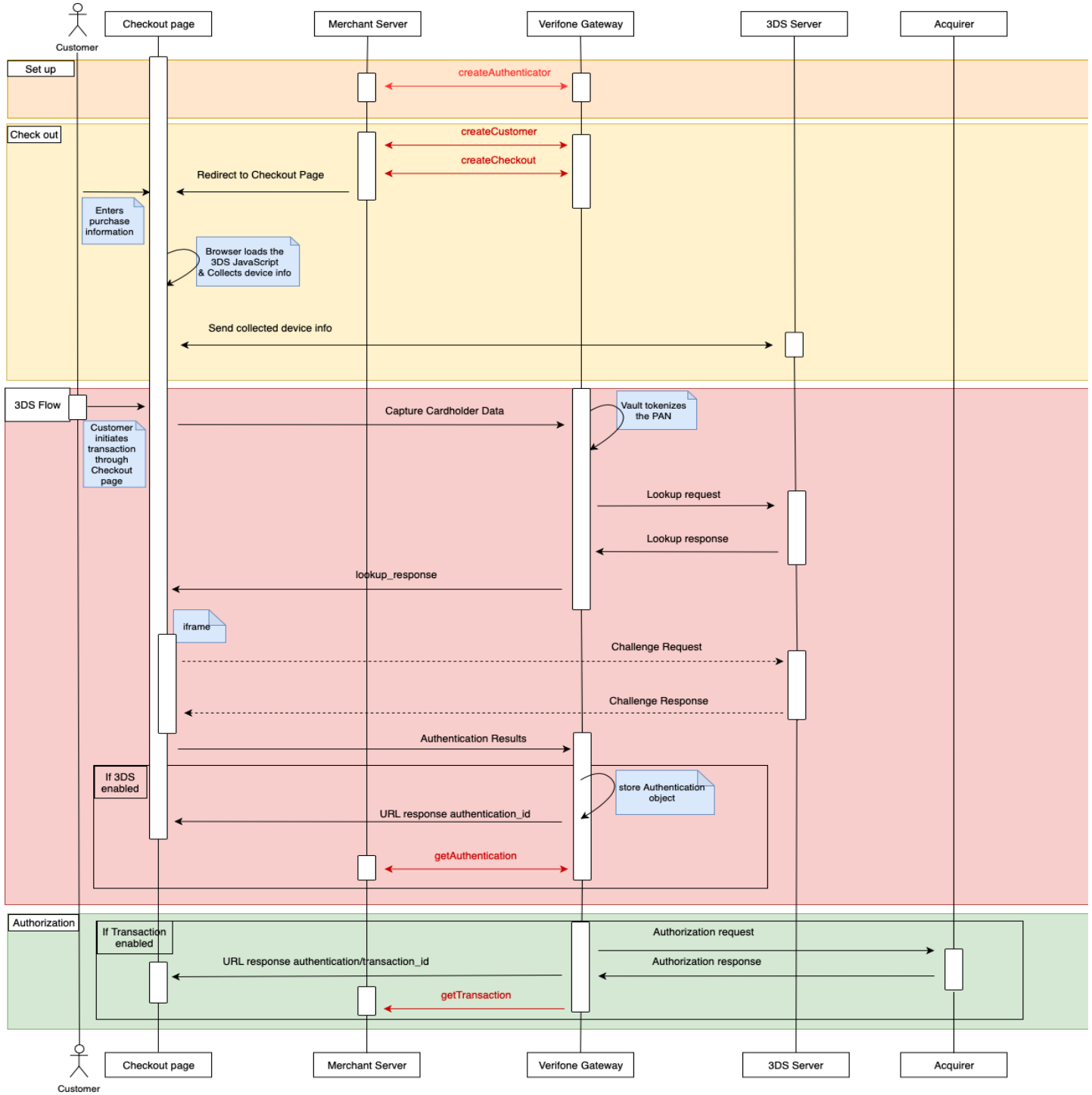


### 3-D Secure

The figure below presents the complete flow when a Checkout is used by the cardholder to purchase a good. The payment flow consists of four parts: the setup, the actions before the customer initiates the purchase (clicks buy button), the Authentication and finally, the Authorisation.



## Set up

During the set up part, you will receive by the implementation team, your 3DS account credentials and an authenticator ID. To create a checkout with 3DS you'll need to populate the `configurations.card.threed_secure.authenticator` field with the `_id` of the `authenticator` you'll be using.

## Create checkout

The check out section takes place when the cardholder is redirected in the checkout page. The following steps shall be completed prior to the cardholder initiating the transaction (clicks 'Buy/Order').

1. Create a customer using the [createCustomer API](#)
2. Create a checkout using the [createCheckout API](#) and set `configurations.card.threed_secure.enabled` to `true` if you want to perform 3-D Secure. In case you only want to perform a 3-D Secure and not a card transaction set the `configurations.card.process_transaction` to `true`. In response to the checkout creation you will receive the following:

```
{
  "_id": "string",
  "url": "string"
}
```

The `_id` field is the ID of the checkout object. The `url` field is the URL that the consumer should be sent to to complete the checkout process.

3. Redirect the Cardholder to the `url` of the checkout page, received when creating the checkout.

## 3DS Flow & Authorization

The Authentication flow, begins when the Cardholder initiates the transaction (clicks 'Buy/Order').

1. When the Cardholder has initiated the transaction, the Checkout receives the Cardholder information and initiates the 3DS flow.
2. After the consumer has completed the 3DS flow there are two ways to retrieve the `authentication._id`:
  1. Consumer will be redirected to the `return_url` with the `authentication._id` appended to the url like so:

```
https://return.url?authentication_id=5cade83a35f9660226f21726
```

2. The `authentication._id` will also be stored in the `checkout` object. Use [getCheckout API](#) using the id that you received in the Checkout response `/v1/checkout/{id}`. Retrieve the `authentication._id` from the `configurations.card.threed_secure.authentication` field. The response will look like this:

```
{
  ...
  "configurations": {
    "card": {
      ...
      "threed_secure": {
        ...
        "authentication": "613939de8cba9a5a97e59551"
      }
    }
  }
}
```

3. Use [getThreedAuthentication API](#) to query the results of the authentication using the `authentication._id` from the previous step `/v1/3d/{{authentication-id}}`.

## Authorizing with another gateway

To authorizing the transaction with another gateway you will need the token of the card. The token is stored in the `card` object, to get the token for authorization you'll first need the `card._id`. This can be done in two different ways:

1. The `card._id` can be found in the GET call for the checkout at `/v1/checkout/{{id that you received in the Checkout creation response}}` in the `configurations.card.card` field.

```
{
  ...
  "configurations": {
    "card": {
      "card": "613939de8cba9a5a97e59551",
      ...
    }
  }
}
```

2. An other method is to perform a GET call to the authentication object using the `authentication._id` at `/v1/3d/{{authentication-id}}`

```
{
  ...
  "card": "613939de8cba9a5a97e59551",
  ...
}
```

In the response you'll see the `card` field. Store this ID.

## Getting the token

The token is returned in the `card` field in the `authentication` object.

Query the card id through a GET call to `/v1/card/{card._id}` and store the `token` field.

```
{
  ...
  "token": "",
  ...
}
```

## Fields for creating a customer for 3DS

The [Customer API](#) mandates specific fields as required. On top of these there are additional fields which are required to enable 3DS during a checkout. Please refer to the table below.

Field name	Description	Required/Optional/Conditional	Specification
billing_address_1	Consumer's billing address information.	R	String (50)
billing_address_2	Consumer's billing address information.	C Required if information is available	String (50)
billing_address_3	Consumer's billing address information.	C Required if information is available	String (50)
billing_city	Consumer's city on their billing address.	R	String (50)
billing_country_code	Consumer's alpha 2 digit ISO 3166 country code. (e.g. United States = US)	R	String (2)
billing_first_name	Consumer's first name.	R	String (50)
billing_last_name	Consumer's last name.	R	String (50)
billing_phone	Consumer's phone number for billing address. This should be unformatted without hyphens. (e.g. 4422345678)	C Required if information is available	String (20)
billing_postal_code	Consumer's postal code of their billing address.	R	String(10)

Field name	Description	Required/Optional/Conditional	Specification
billing_state	Consumer's state or province of their billing address. ISO 3166-2	R Required unless market or regional mandate restricts sending this information, or state is not applicable for this country.	String (3)
company_name	Company name	C if billing_first_name or billing_last_name not provided	String
company_registration_number	Unique identifier of the company, recognised by the government. Known as CoC (Chamber of Commerce) number in some countries.	O	String
date_of_birth	The date of birth of a person, 10 characters, ISO-8601 (YYYY-MM-DD)	O	String (10)
email_address	Consumer's email address.	R	String (255)
gender	Gender	O	String (male or female)
organisation	Dimebox Organisation ID	Optional, default value is organisation of the user submitting the call	String
phone_number	Cardholder's mobile phone number	R	Number (25)
shipping_address_1	Consumer's shipping address information.	C Required if information is available	String (50)
shipping_address_2	Consumer's shipping address information.	C Required if information is available	String (50)
shipping_address_3	Consumer's shipping address information.	C Required if information is available	String (50)
shipping_city	Consumer's city of their shipping address.	C Required if information is available	String (50)
shipping_country_code	Consumer's alpha 2 digit ISO 3166 country code. (e.g. United States = US)	C Required if information is available	String (2)

Field name	Description	Required/Optional/Conditional	Specification
shipping_postal_code	Consumer's postal code of their shipping address.	C Required if information is available	String (10)
shipping_state	Consumer's state or province of their shipping address. (e.g. Ohio = OH, Texas = TX)	C Required if information is available	String (50)
social_security_number	The social security number of the customer. Only supported for DK, FI, NO & SE and required for dealing with Klarna.	O	String
title	The title / honorific prefix of a person, amongst (mr, ms).	O	String
work_phone	Consumer's work phone number.	C Required if information is available	Number (25)