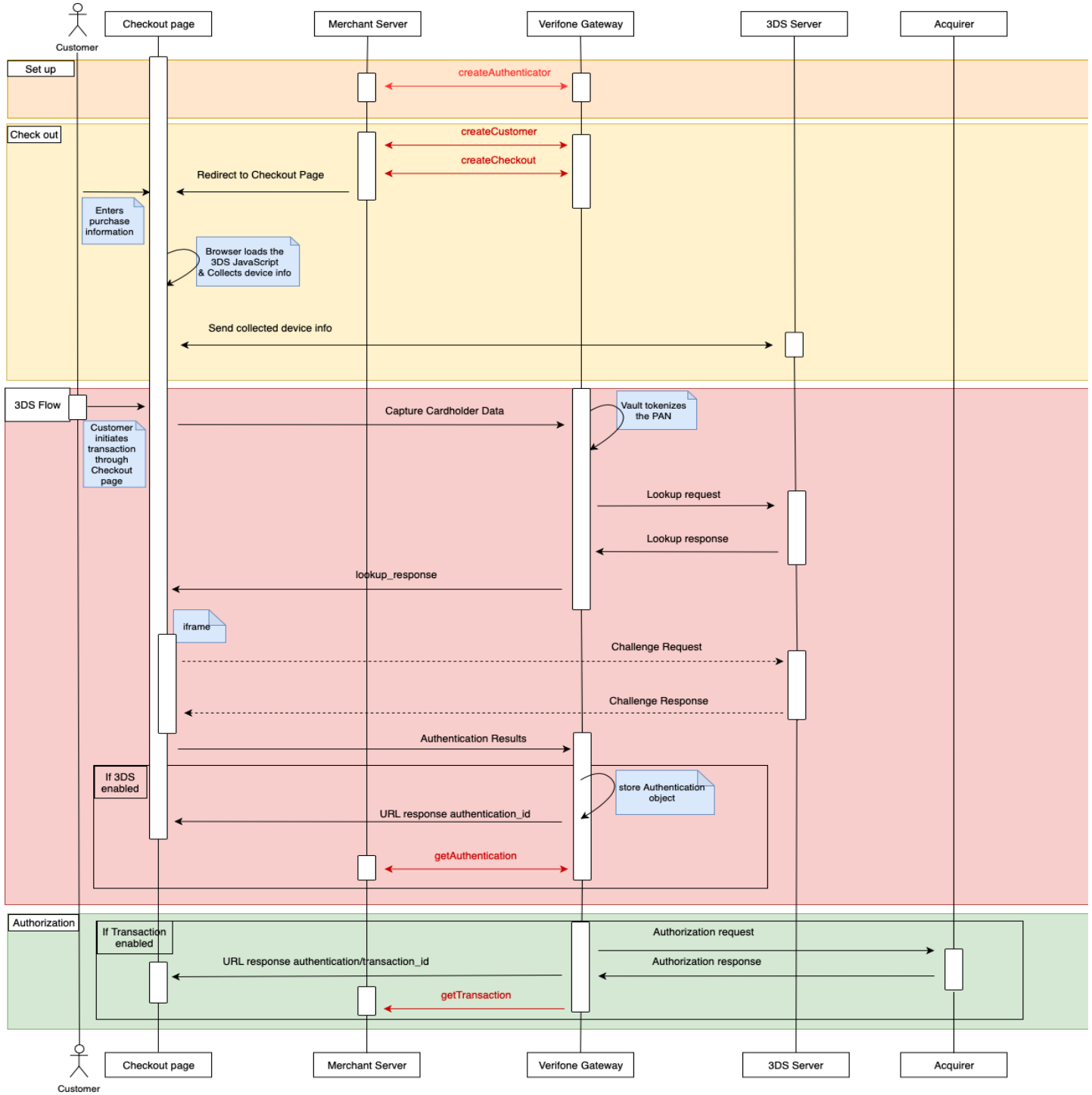


3-D Secure

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) |