

Recurring card payments (Subscription)



Subscription compliant with PSD2 regulation

- First transaction (subscription initiation transaction) : Transaction strongly authenticated with 3DSV2 (SCA) without exemption request
- All subsequent transactions are linked to the first transaction



Key features

- **Subscription for fixed amount and frequency** The amount, frequency and duration are known when the customer subscribes
- **Subscription for variable amount and/or frequency - CIT / MIT** : in any other case, the amount, frequency or duration are not known at the time of subscription (tacit renewal).

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Description

This section covers the implementation recurring card payments, compliant with PSD2, on Acepta Online for **CB, VISA, Mastercard**.

Acepta Online offers 2 kind of subscription :

- **Subscription for a fixed amount and frequency over a defined period**: The amount, frequency and duration are known when the customer subscribes
- **Variable subscription - CIT / MIT** : in any other case, the amount, frequency or duration are not known at the time of subscription (tacit renewal).

For recurring card payments with a first **MOTO** transaction, you can refer to [Recurring card payments \(Subscription\) - MOTO \(Mail Order / Telephone Order\)](#)



The kind of subscription must be defined during the first transaction and cannot be modified during subscription.

If you want to switch from a fixed-term subscription to a variable subscription, you will have to enroll your customer again (new CIT transaction - Customer Initiated Transaction - with 3DS authentication).

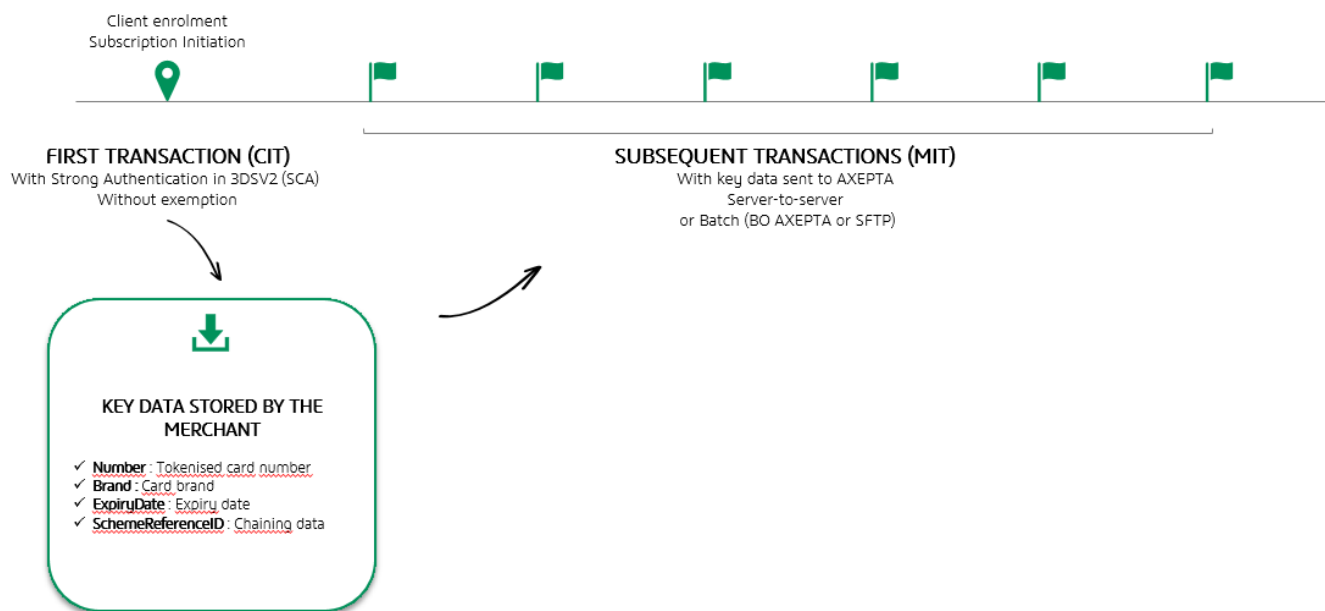
Prerequisites

- Subscription / recurring payment by card (CB, Visa, Mastercard):
 - Choose which kind of subscription you will use (see below)
 - Get your client's consent for the subscription of a new subscription (on merchant side)
 - Store the following data
 - The JSON object `Card` containing: the tokenized card number (PCNr), the card brand and the expiration date
 - The `schemeReferenceID` received in response of the first transaction (subscription initiation transaction)

Subscription flows

The subscription flows are :

1. **Client enrolment : subscription initiation transaction**
 - a. The 1st transaction, initiated by the client, will be authenticated with 3DSV2. It's a CIT or Customer Initiated transaction.
 - b. This transaction will not be eligible to an exemption request.
 - c. A chaining value will be sent in the response of this transaction. It will be stored by the merchant and used in all subsequent transactions (see diagram below).
2. **Subsequent transactions**
 - a. The subsequent transactions will be initiated by the merchant. It's an MIT or Merchant Initiated transaction.
 - b. The requests will use the chaining value received in response of the subscription initiation transaction.



Subscription flows

Focus on transactions chaining

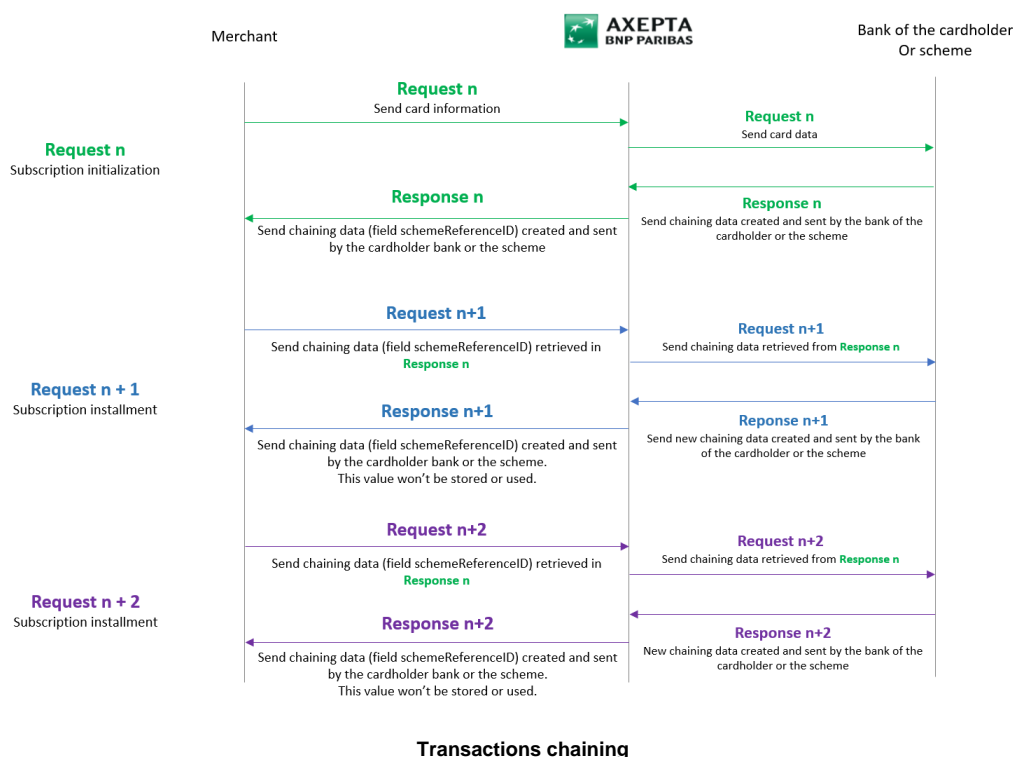
A key data

The response of 1st transaction of a subscription will contain the chaining data which will be used to link ("chain") the subsequent transaction to the 1st transaction (initiation of the subscription).

The chaining data, received in response to the subscription initialization, is generated either by the bank or by the scheme (Visa, Mastercard).

In the Axepta Online documentation, the chaining data is called **schemeReferenceID**.

Principles



Subscription implementation

Subscription for a fixed amount and frequency

Example


The customer subscribes to a gym for 1 year for € 34.99 per month

- Month 1: The client pays the first month online (CIT)
- Months 2 to 12: The following months, the merchant initiates transactions for €34.99 (MIT)

1. Client enrolment : subscription initiation transaction

The first transaction, initiation of the subscription, will be processed through :

- The payment page
- The card form hosted by BNP Paribas
- A card form hosted by the merchant - only if the merchant is PCI-DSS certified

 The 3D Secure authentication is mandatory for the first transaction initiated by the client (CIT)


Request

 The following table describes the additional encrypted parameters added to the payment request:

Parameter	Format	CND	Description	Example
credentialOnFile	JSON	M	Object specifying the type of transaction	<pre>{ "type": { "recurring": { "recurringFrequency": 30, "recurringStartDate": "2019-09-14", "recurringExpiryDate": "2020-09-14" }, "initialPayment": true, "useCase": "fixed" } }</pre>
threeDSPolicy	JSON	M	Object specifying the type of 3DS authentication (mandatory, exemption...) Use : Mandate challenge	—

Response

The following table describes the parameters received in the payment response and stored by the merchant.

Key	Format	CND	Description
card	JSON	M	Card data - Token included - card:response EN <div>  The object Card available in the response should be decrypted and stored. The object card used in the next request requires less parameters than the card object in the response. <ul style="list-style-type: none"> card:request EN card:response EN </div>
schemeReferenceID	ans..64	C	Chaining data used for subscription transactions / recurring payments



- JSON Object **card** and the value in **schemeReferenceID** will be used in all subsequent transactions of the subscription
- The value in **schemeReferenceID** of this transaction will be used in all subsequent transactions to link them to the initial transaction (initial transaction of the subscription)

2. Subsequent transactions

Subsequent transactions are initiated by the merchant through :


- Server-to-server - [direct.aspx](#)
- Batch - [Create Batch payments \(File\)](#)





The subsequent transactions are not authenticated with 3D Secure because they are initiated by the merchant (MIT)

Server-to-server

Request

 The following table describes the additional encrypted parameters added to the payment request:

Paramètre	Format	CND	Description	Exemple
card	JSON	M	Card data - Token included - card:request EN <div>  The object Card available in the response should be decrypted and stored. The object card used in the next request requires less parameters than the card object in the response. <ul style="list-style-type: none"> • card:request EN • card:response EN </div>	--
schemeReferenceID	ans..64	M	Chaining data used for subscription transactions / recurring payments <div>  Use the value received in the response of the subscription initialization request. </div>	--
credentialOnFile	JSON	M	Object specifying the type of transaction	<pre>{ "type": { "recurring": { "recurringFrequency": 30, "recurringStartDate": "2019-09-14", "recurringExpiryDate": "2020-09-14" } }, "initialPayment": false, "useCase": "fixed" }</pre>

Response



Only the value of the **schemeReferenceID** received in the response of the subscription initialization request has to be stored and used in all subsequent transactions.

Some issuers can send a new value for **schemeReferenceID** in the response, however this new data won't be used.

Batch

Paramètre	Format	CND	Description
RTF	a1	O	Subscription with fixed amount and duration <ul style="list-style-type: none"> • Next subscriptions : RTF=R

Subscription for variable amount and/or frequency - CIT / MIT

The variable subscription is a subscription with a variable amount during the subscription and/or a duration not known when the client subscribes.

Examples

The customer subscribes to a service with a fixed fees and monthly consumptions

- Month 1: The client pays the first month online (CIT)
- Month n+1 : The merchant initiates transactions for 12,99 € (MIT)
- Month n+2 : The merchant initiates transactions for 35,99 € (MIT)...

Or the customer subscribes to a service with tacit monthly renewal :

- Month 1: The client pays the first month online (CIT) for 50 €
- Month n+1 : The merchant initiates transactions for 50 € (MIT)
-
- Month n+20 : The merchant initiates transactions for 50 € (MIT)

1. Client enrolment : subscription initiation transaction

The first transaction, initiation of the subscription, will be processed through :

- The payment page
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- A card form hosted by the merchant - only if the merchant is PCI-DSS certified



The 3D Secure authentication is mandatory for the first transaction initiated by the client (CIT)

Request


The following table describes the additional encrypted parameters added to the payment request:

Parameter	Format	CND	Description	Exmple
credentialOnFile	JSON	M	Object specifying the type of transaction	<pre>{ "type": { "unscheduled": "CIT" }, "initialPayment": true, "useCase": "ucof" }</pre>
threeDSPolicy	JSON	M	Object specifying the type of 3DS authentication (mandatory, exemption...) Use : Mandate challenge	—

Response

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- JSON Object **card** and the value in **schemeReferenceID** will be used in all subsequent transactions of the subscription
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Server-to-server

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schemeReferenceID	ans..64	M	Chaining data used for subscription transactions / recurring payments	--
			<div>  Use the value received in the response of the subscription initialization request. </div>	

credentialOnFile	JSON	M	Object specifying the type of transaction	<pre> { "type": { "unscheduled": "MIT" }, "initialPayment": false, "useCase": "ucof" } </pre>
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Response



Only the value of the **schemeReferenceID** received in the response of the subscription initialization request has to be stored and used in all subsequent transactions.

Some issuers can send a new value for **schemeReferenceID** in the response, however this new data won't be used.

Batch

Paramètre	Format	CND	Description
RTF	a1	O	Subscription with variable amount and duration <ul style="list-style-type: none"> Next subscriptions : RTF=M

Subscription with AMEX cards

The recurring card payments, compliant with PSD2, on Axepta Online for **AMEX** require to use parameter **TransactionID** instead of schemeReferenceID (request and response).