

DSP2

3DSv2 Integration Manual

Version 1.9

Verifone[®]

Verifone
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CHANGE HISTORY

DATE	VERSION	DESCRIPTION	AUTHOR
2020-04-01	1.0	Creation.	Project management
2020-05-14	1.1	Adding Paybox Direct implementation.	Project management
2020-06-05	1.2	Translation Details to implement Paybox Direct.	Project management
2020-09-15	1.3	Adding test data.	Project management
2020-10-06	1.4	Catch-back on the French versions Wording and corrections	Project management
2021-07-20	1.5	Variable size corrections: FirstName goes from 30 to 22 characters. LastName goes from 30 to 22 characters. ZipCode goes from 16 to 10 characters. Address1 goes from 50 to 40 characters. Address2 goes from 50 to 40 characters. For those variables, if the previous size is respected, the data will be truncated but the payment attempt will still be done. Specifying expected format for the country code – numeric 3 digits. Specifying that expected format does not include accented characters. Adding an American Express paragraph. §6 Adding a paragraph regarding recurring payment. §3.3	Project management
2021-10-05	1.6	Adding CB2A 1.6 version. Adding §3.3 Merchant authentication request. Updating §3.4 Recurring payments. Adding new optional fields to 3D-Secure calls. Adding §5.2.4 & §4.1.4 new error codes. Adding details regarding the parameters to be used in §4.1.3 Updating §5.2.2 adding variable ChallengeIndicator Updating §5.2.3 adding necessary variables for an implementation without relying on ID3D.	Project management
2021-10-14	1.7	Adding 3DS on One-Click payment. Updating §5.2.2 with the necessary variables.	Project management
2021-11-16	1.8	Variable size corrections:	Project management

		<p>FirstName goes from 30 to 22 characters. LastName goes from 30 to 22 characters. ZipCode goes from 16 to 10 characters. Address1 goes from 50 to 40 characters. Address2 goes from 50 to 40 characters.</p> <p>Precision on the date and time expected in UTC for the parameter DATEAUTHENT §5.2.3</p> <p>Adding a warning about the parameters DATEAUTHENT and MONTANTAUTHENT being mandatory even when not return by the authentication.</p>	
2022-03-11	1.9	<p>Adding authentication type in PBX_RETOUR.</p> <p>PostalCode was mandatory but documented as optional.</p>	

DOCUMENTATION REFERENCE

All of the manuals referenced below are available on Paybox by Verifone website:

www.paybox.com :

REF.	DOCUMENT	DESCRIPTION
Réf 1	http://www1.paybox.com/wp-content/uploads/2017/08/ManuelIntegrationVerifone_PayboxSystem_V8.0_EN.pdf	Paybox System integration manual
Réf 2	http://www1.paybox.com/wp-content/uploads/2017/08/ManuelIntegrationVerifone_PayboxDirect_V8.1_EN.pdf	Paybox Direct integration manual
Réf 3	ParametresTestPaybox_CB55_V8.0_FR.pdf	Paramètres de tests spécifiques à CB5.5.
Réf 4	http://www1.paybox.com/wp-content/uploads/2018/03/ManuelIntegrationVerifone_RemoteMPI_V8.0_EN.pdf	Remote MPI Manual

The following convention is applied throughout this document:

An information area: Its content details a certain point, for better understanding.

A warning area: Important content to pay attention to.

WARNING

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INFORMATION & ASSISTANCE

For any information or support enquiries for installation and use of our products, our teams remain at your disposal, whether you are a merchant or an integrator.

Customer and technical support
mon-fri, 9am to 6pm

support-paybox@verifone.com

0 825 305 004 Service 0,15 € / min
+ prix appel

For any request to our customer and technical support, please have your Paybox Identifiers at hand:

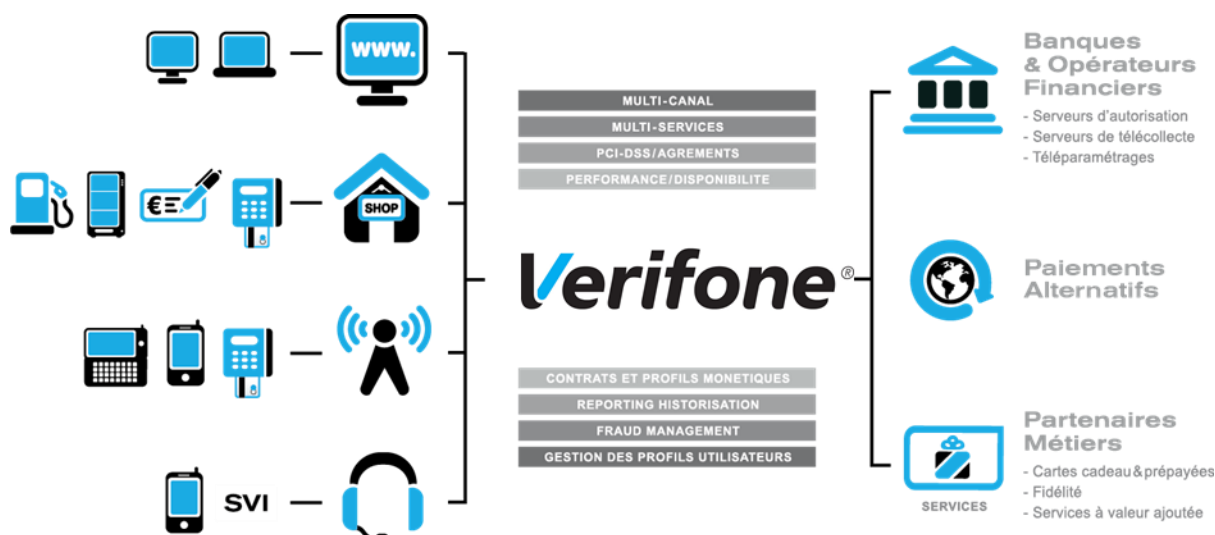
- SITE Number (7 digits)
- Rank Number (3 digits)
- Paybox Identifier (1 to 9 digits)

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1. INTRODUCTION

Verifone has developed and is managing its own centralized platform to provide an interface between different channels for payments or services and the corresponding recipients for processing (financial operators, banking institutions, business partners).



It is an Omni-channel and multi-services centralized platform:

- **Omni-channel:** the Verifone platform accepts connections originating from different kinds of systems, physical POS (Card Present) as well as remote payments (Card Not Present, E-Commerce/M-Commerce) :
 - Internet, Merchant Web Sites
 - Electronic Payment Terminals, POS in a shop or retailer
 - Vending machines
 - Smartphones or PDA
 - Call centers, Interactive vocal servers (IVR), ...
- **Multi-services:** the Verifone platform is able to process many different types of payments instruments:
 - Debit cards and credit cards,
 - Private label cards,
 - Gift cards,

But the platform is also able to process multiple services and business-oriented transactions:

- Loyalty cards,
- Consumer finance,
- Fleet management,
- Taxi booking, ...

2. PURPOSE OF THIS DOCUMENT

In the Card Not Present and E-Commerce/M-Commerce areas, Verifone is offering several solutions, each of them offering specific functionalities:

- **PAYBOX SYSTEM**: Paybox System requires an integration within the Merchant Web or mobile site. At the time of payment, cardholders are automatically redirected to a secured multilingual payment page hosted by Verifone. This payment page can be personalized to fit the merchant website look and feel. PAYBOX SYSTEM complies with the highest security requirements for card payments on E-Commerce/M-Commerce websites by using amongst others, a SSL 256 bits technology for the payment page and by managing the 3-D Secure protocol (if option subscribed by the Merchant).

- **PAYBOX DIRECT (PPPS)**: Paybox Direct ensures processing of payment in the most seamless way for the cardholder who will not be redirected. The merchant sales application has to collect the card information (such as Card number, expiry date ...) and send it to Paybox within an SSL secure server to server request, in order to process the payment.

Paybox Direct can also be used to capture transactions which have already been authorized through Paybox System. Combining Paybox System with Paybox Direct allows merchants to improve flexibility by driving their operations post-payment in server to server mode, directly from their sales application (or back-office).

- **PAYBOX DIRECT Plus**: Refers to the Paybox service where the sales application asks Paybox to store cardholder information. This solution interfaces nicely with Paybox System or can be used alone directly in server to server mode.

Paybox Version Plus allows the merchant to manage recurring payments, as well as express checkouts with 1-click payment where the cardholder doesn't have to enter its data for each transaction.

- **PAYBOX BATCH FILE PROCESSING**: This solution is based on mutual off-line deposits of structured files between the merchant and Paybox. The merchant information system has to collect the card information (such as card number, expiry date ...) and send it to PAYBOX through a secure file transfer, in order to process the payments. Paybox batch file processing can also be used to capture transactions which have already been authorized through Paybox System. Paybox batch file processing also provides functionalities like refund and cancel of transactions, again through file deposit mechanism.

This document is an integration manual, specifying the expectations related to the second Payment Services Directive (PSD2), and particularly the **3DSv2 authentication** on the Paybox platform.

It is aimed at people requiring information on the mode of operation for this solution, choosing the best way to interface with it.

3. 3DSV2 PRESENTATION

3.1 GENERAL OPERATION PRINCIPLE

The Second Payment Services Directive (PSD2) coming into effect imposes the authentication of the cardholder for all e-commerce payments before April 2021, except for some specific cases.

Every e-merchant and integrator must implement the necessary modification to meet the 3D-Secudev2 requirements or proceed to a systematic authentication.

A new authentication protocol, defined by the Carte Bancaire group, Visa and Mastercard allows to obtain this authentication without a systematic challenge of the cardholder, usually done by sending an SMS or using an official banking application.

This document presents the changes linked to the regulation, for both Paybox System and Paybox Direct integration.

It is an addition to the existing manuals for these solutions, and only the evolution from these manuals will be described here.

3.2 PREREQUISITE

In order to fulfill conformity with the PSD2, the changes described in the following paragraphs will be mandatory.

To be eligible to the migration process, the merchant needs to:

- Use the Vision Back-Office for the visualization and exploitation of the transactions.
- Carry a CB2A v5.5 payments acceptance contract (this version change is processed between Verifone and each acquiring Bank).

3.3 MERCHANT AUTHENTICATION REQUEST

A new variable allows the merchant to give an opinion regarding the need for a challenge during the cardholder authentication for a specific transaction.

Warning: For this functionality to work, it is mandatory that the merchant was setup in CB2A version 1.6 by Verifone and you acquiring bank.

This variable will be sent to the emitting bank who will or will not follow the requested authentication method.

Warning: In the event that a merchant request a frictionless authentication and that this request is followed upon by the bank; there will not be a liability shift for this payment attempt and the risk of fraud would fall on the merchant.

In a Paybox System implementation the variable is:

PBX_SOUHAITAUTHENT

In a Paybox Direct implementation the variable is:

ChallengeIndicator

Possible values for those variables are:

- | | |
|----|-------------------------|
| 01 | No preference. |
| 02 | Frictionless requested. |
| 03 | Challenge requested. |
| 04 | Challenge required. |

Information: This variable is optional.

When this variable is not sent; the value 01 (no preference) will be used by default.

Warning: In some cases, mostly regarding recurring payments, Verifone platform will force a required authentication using the value 04 to allow the payment attempt to be processed.

3.4 RECURRING PAYMENTS

Current implementation is using protocol version that allows for recurring payments to be processed.

Warning: Current implementation is tolerated but will need to be updated.

The recent evolutions require a strong authentication of the cardholder even for recurring payments. This authentication will be done during the first transaction and an original unique transaction identifier will be carried over during the following installments.

3.4.1 Handling of previous recurring payments

Information: This section only concerns itself with the recurring payments, card token or installments created before the merchant account is setup in CB2A version 1.6.

The recurring payments initiated before the account is setup in CB2A version 1.6 will not be able to go on past January 1st, 2022 without sending an original unique transaction identifier.

This original unique transaction identifier will be dealt with by Verifone in association with every payment stakeholder. It will be generated based on the elements sent during the first transaction.

3.4.2 Modification needed

Warning: This section deals with the creation of new recurring payment after the merchant contract have been moved to CB2A version 1.6.

For the merchants using a Paybox System solution, Verifone platform will be able to gather all necessary information and modification is needed to the implementation.

For the merchant using a Paybox Direct solution, several variables can be added to the implementation to carry over the context of the authentication and allow the emitting bank to process them.

The variables needed are described and identified as optional in **5.2.2 Data to add – Remote MPI**.

4. PAYBOX SYSTEM

4.1 CHANGES

The implementation of the PSD2 comes with the following changes of functionalities.

4.1.1 Soft Decline addition

During the migration phase, some transactions for which the cardholder was not authenticated could be rejected through a 'Soft Decline' mechanism.

The authorization center will return a specific error code to the merchants, with the value 001A1.

Information: To receive this code in return for a Paybox System call, the PBX_RETOUR variable will need to be valued with the 'e' parameter.

4.1.2 Disabling 3D-Secure temporary switch

The PSD2 regulation requires that the cardholders are authenticated for all transactions, making the existing temporary disable using the PBX_3DS variable counterproductive.

Once the contracts are properly configured to be compatible with PSD2, this variable will no longer be taken into consideration for 3D-Secure V1, and no alternative will be proposed for 3D-Secure V2.

4.1.3 Know which version of 3D-Secure is used

To allow the merchant to know if the transaction was completed through 3D-Secure v1 or V2, a new parameter « v » is introduced in the PBX_RETOUR variable.

Information: The letter v is to be sent in lowercase; uppercase V being already being used for another functionality.

When this parameter is requested, the 3D-Secure version used for the transaction is returned in the response to the transaction attempt.

Warning: From Avril 2021 transactions without authentication or exemption will be refused. All e-commerce merchants must use EMV 3D-Secure v2 or authenticate systematically the cardholder.

4.1.4 New error code handling

The following error codes can be obtained once the CB2A version 1.6 is setup on the merchant contract.

001A1	Fallback on VADS see 4.1.1 Soft Decline
001R1	Revocation of a specific recurring payment.
001R3	Revocation of every installment of a recurring payment.
001A4	Incorrect use of TRA (Transaction Risk Analysis).

4.1.5 Merchant authentication request configuration

See **3.3 Merchant authentication request**.

4.1.6 3D-Secure authentication type

The 3D-Secure authentication type can be obtained by sending a new parameter « c » in the variable PBX_RETOUR.

Information: The letter c needs to be sent in lowercase, uppercase C is used by another functionality unrelated to 3D-Secure.

When the parameter is requested the 3D-Secure authentication type used during the transaction is provided in the response.

FR: For a Frictionless authentication.

CH: For an authentication with Challenge.

4.2 IMPACTS

All of the payment attempts passed through Paybox System are concerned by the cardholder authentication.

With PSD2 coming into effect, the cardholder authentication will be expected by the card issuer for every payment attempt.

4.2.1 3D-Secure v1

To allow for the authentication of the cardholder without changing the payment integration, the merchant will need to consult its bank in order to obtain a 'VADS' contract (Vente à Distance Sécurisée, French for secured distance sell). This contract will need to be transmitted to Verifone, who will then proceed with the enrollment and the configuration of said contract.

Information: This method imposes a challenge of the cardholder during each payment attempt (sending an SMS for instance). This challenge is a source of friction during the sale.

Warning: From April 2021 transactions without authentication or exemption will be refused. All e-commerce merchants must use 3D-Secure v2 or authenticate systematically the cardholder.

4.2.2 3D-Secure v2

The merchant will need to consult its bank in order to obtain a 'VADS' contract (Vente à Distance Sécurisée, French for secured distance sell).

This contract will need to be transmitted to Verifone, who will then proceed with the enrollment and the configuration of said contract.

However, this new version of 3D-Secure will only be operational after some changes are made to the Paybox System integration of the merchant, as described in the paragraph: **4.3 Changes to implement.**

Information: Verifone's recommendation, as well as the French (GIE-CB) and European (ABE) regulatory institutions is to implement 3D-Secure v2.

4.3 CHANGES TO IMPLEMENT

These changes only concern the 3D-Secure v2 implementation.

This new version allows for more data to be considered when scoring the transaction, the goal being to not systematically challenge the cardholder by asking him to log in his bank application or by sending him a SMS.

This new mandatory information will be sent through two new variables PBX_SHOPPINGCART & PBX_BILLING, describe in the following paragraphs.

More optional variables are described and sending them will improve the scoring of a transaction authentication request and its chance of being done without challenge by the emitting bank (frictionless).

Warning: Those variables are to be added in the call sent to Verifone platform and will need to be considered when doing the HMAC calculations.

4.3.1 PBX_SHOPPINGCART

Format: XML. **Mandatory.**

This variable will contain an XML element <shoppingcart> that will be extended in future evolution of the platform.

Only one data will be mandatory for protocol reasons, the total number of items composing the order.

It will be valued within a Numeric field, ranging from 1 to 99. It will be named <totalQuantity> and will be integrated as followed:

Example:

Name	Description	Type	Presence
shoppingcart	Root XML tag.	XML	M
language	Shopping cart language.	A2	o
items	Shopping cart items.	XML	o
item	A product – composed of one or several of the following fields.	XML	o
label	Product name.	ANP..50	o
description	Product description	ANP..250	o
reference	Product reference.	AN..25	o
price	Product price	N..12	o
quantity	Product quantity	N..5	o
custom	Field allowing custom tag.	XML	o
total	Shopping Cart total price.	XML	M
itemsPrice	Shopping Cart items price.	N..12	o

totalPrice	Shopping Cart total price including fees	N..12	o
totalQuantity	Shopping cart total quantity of items.	N..2	M
custom	Field allowing custom tag.	XML	o

AN: Alpha Numerical without special characters
 ANP: Alpha Numerical including space and accented characters
 ANS: Alpha Numerical including special characters
 N: Numerical only
 A: Alphabetical only

M: Mandatory
 C: Conditional
 o: Optional

Example :

```
<?xml version="1.0" encoding="utf-8"?>
<shoppingcart>
  <total>
    <totalQuantity>15</totalQuantity>
  </total>
</shoppingcart>
```

4.3.2 PBX BILLING

Format: XML. **Mandatory.**

The information regarding the cardholder and his/her billing address.

Warning: To use accented characters and special characters, it will be mandatory to encode them using UTF8.

Name	Description	Type	Presence
Billing	XML root tag	XML	M
Address	XML tag	XML	M
CompanyName	Name of the company	ANP..50	o
Title	Customer title	AN..20	o
FirstName	Customer first Name	ANP..30 (including / - ')	M
LastName	Customer last Name	ANP..30 (including / - ')	M
Address1	Billing Address	ANS..50	M
Address2	Billing Address	ANS..50	o
ZipCode	Zip code for the Billing Address	ANS..16	M
City	City for the Billing Address	ANS..50	M
CountryCode	Country code for the Billing Address	N..3	M
CountryCode HomePhone	Country code for the home phone number	1 to 3 digits preceded by +	o
HomePhone	Home phone number	N..10	o

CountryCode	Country code for the mobile phone number	1 to 3 digits preceded by +	o
MobilePhone	Mobile phone number	N..10	o
Custom	Content of this tag is free.	ANS..500	o

AN: Alpha Numerical without special characters
 ANP: Alpha Numerical including space and accented characters
 ANS: Alpha Numerical including special characters
 N: Numerical only
 A: Alphabetical only

M: Mandatory
 C: Conditional
 o: Optional

Example:

```
<?xml version="1.0" encoding="utf-8"?>
<Billing>
  <Address>
    <FirstName>Jean</FirstName>
    <LastName>Dupont</LastName>
    <Address1>12 rue Paul Dautier</Address1>
    <ZipCode>78140</ZipCode>
    <City>Velizy-Villacoublay</City>
    <CountryCode>250</CountryCode>
  </Address>
</Billing>
```

4.3.3 PBX_SHIPPING

Format: XML. Optional

The information regarding the cardholder and his/her shipping address.

Warning: To use accented characters and special characters, it will be mandatory to encode them using UTF8.

Nom	Description	Type	Presence
Shipping	XML root tag	XML	o
Address	XML tag	XML	o
CompanyName	Name of the company	ANP..50	o
Title	Customer title	AN..20	o
FirstName	Customer first Name	ANP..30 (including / - ')	o
LastName	Customer last Name	ANP..30 (including / - ')	o
Address1	Shipping Address	ANS..50	o
Address2	Shipping Address	ANS..50	o
ZipCode	Zip code for the Shipping Address	ANS..16	o
City	City for the Shipping Address	ANS..50	o

CountryCode	Country code for the Shipping Address	N..3	o
CountryCode HomePhone	Country code for the home phone number	1 to 3 digits preceded by +	o
HomePhone	Home phone number	N..10	o
CountryCode MobilePhone	Country code for the mobile phone number	1 to 3 digits preceded by +	o
MobilePhone	Mobile phone number	N..10	o
Custom Metrics	Content of this tag is free. Metrics on customer habits.	ANS..500 XML	o
AddressUsage Date	Date when the shipping address used for this transaction was first used.	N..8 YYYYMMDD	o
AddressUsage Indicator	Indicates when the shipping address used for transaction was first used.	N..2 01: This transaction 02: Less than 30 days. 03: 30-60 days 04: More than 60 days.	o
AddressMethod Indicator	Indicates shipping method chosen for the transaction.	N..2 01: Ship to cardholder billing address 02: Ship to another verified address on file with merchant 03: Ship to address that is different than billing address 04: Ship to store (store address should be populated on request) 05: Digital goods 06: Travel and event tickets, not shipped 07: Other.	o
AddressName Indicator	Indicates if the cardholder name on the account is identical to the shipping name used for the transaction.	N..2 01: Account and shipping name identical. 02: Account and shipping name differ	o

AN: Alpha Numerical without special characters
 ANP: Alpha Numerical including space and accented characters
 ANS: Alpha Numerical including special characters
 N: Numerical only
 A: Alphabetical only

M: Mandatory
 C: Conditional
 o: Optional

Example:

```
<?xml version="1.0" encoding="utf-8"?>
<Shipping>
  <Address>
    <FirstName>Jean</FirstName>
    <LastName>Dupont</LastName>
    <Address1>12 rue Paul Dautier</Address1>
```

```

<ZipCode>78140</ZipCode>
<City>Velizy-Villacoublay</City>
<CountryCode>250</CountryCode>
<CountryCodeMobilePhoneCode>+33</CountryCodeMobilePhoneCode>
<CountryCodeMobilePhone>0605040302</CountryCodeMobilePhone>
</Address>
</Shipping>
    
```

4.3.4 PBX_CUSTOMER

Format: XML. Optional

The information regarding the customer.

Warning: To use accented characters and special characters, it will be mandatory to encode them using UTF8.

Nom	Description	Type	Presence
Customer	XML root tag	XML	o
CompanyName	Name of the company	ANP..50	o
Title	Customer title	AN..20	o
FirstName	Customer first Name	ANP..30 (including / - ')	o
LastName	Customer last Name	ANP..30 (including / - ')	o
Mail	Customer Email	ANS..40	o
CountryCode	Country code for the Billing Address	N..3	o
CountryCode HomePhone	Country code for the home phone number	1 to 3 digits preceded by +	o
HomePhone	Home phone number	N..10	o
CountryCode MobilePhone	Country code for the mobile phone number	1 to 3 digits preceded by +	o
MobilePhone	Mobile phone number	N..10	o
Custom Id	Content of this tag is free. Additional cardholder account information.	ANS..500 AN..64	o
Metrics	Metrics on customer habits.	XML	o
AccountAgeIndicator	Length of time cardholder has had account	N..2 01: No account 02: Created during transaction 03: Less than 30 days 04: 30-60 days 05: More than 60 days.	o
AccountChangeDate	Date the cardholder's account was last changed. This includes changes to the billing or shipping address,	N..8 YYYYMMDD	o

	new payment accounts or new users added		
AccountChangeIndicator	Length of time since the last change to the cardholder account. This includes shipping address, new payment account or new user added.	N..2 01: Changed during transaction. 02: Less than 30 days. 03: 30-60 days. 04: More than 60 days	o
AccountCreateDate	Date the cardholder opened the account.	N..8 YYYYMMDD	o
AccountPurchases	Number of purchases with this cardholder account during the previous six months.	N..4	o
AccountPwdChangeDate	Date the cardholder last changed or reset password on account.	N..8 YYYYMMDD	o
AccountPwdChangeIndicator	Length of time since the cardholder changed or reset the password on the account.	N..2 01: No change 02: Changed during transaction. 03: Less than 30 days. 04: 30-60 days. 05: More than 60 days.	o
PaymentAccountAge	Date the payment account was added to the cardholder account.	N..8 YYYYMMDD	o
PaymentAccountIndicator	Indicates the length of time that the payment account was enrolled in the merchant account.	N..2 01: No account (guest checkout) 02: During the transaction. 03: Less than 30 days. 04: 30-60 days. 05: More than 60 days.	o
Authentication	Information regarding authentication.	XML	o
AlternateAuthenticationDate	Date and time in UTC of the cardholder authentication.	N..12 YYYYMMDDHHMM	o
AlternateAuthenticationData	Data that documents and supports a specific authentication process that was sent in the AlternateAuthenticationMethod field.	ANP..2048	o
AlternateAuthenticationMethod	Mechanism used by the cardholder to authenticate to the 3DS requester.	N..2 01: No authentication occurred (e.g. Guest Checkout) 02: Login to the cardholder account at the Merchant system using Merchant system credentials.	o

		03: Login to the cardholder account at the Merchant system using a Federated ID. 04: Login to the cardholder account at the Merchant system using Issuer credentials. 05: Login to the cardholder account at the Merchant system using third-party authentication 06: Login to the cardholder account at the Merchant system using FIDO Authenticator.	
AuthenticationIndicator	Indicates the type of Authentication request.	N..2 01: Payment transaction. 02: Recurring transaction. 03: Installment transaction. 04: Add card. 05: Maintain card. 06: Cardholder verification as part of EMV token ID&V.	o
PriorAuthenticationData	This field carry data that the ACS can use to verify the authentication process	ANP..2048	o
PriorAuthenticationMethod	Mechanism used by the Cardholder to previously authenticate to the 3DS Requestor.	N..2 01: Frictionless authentication occurred by ACS 02: Cardholder challenge occurred by ACS 03: AVS verified 04: Other issuer methods.	o
PriorAuthenticationRef	This data element contains a ACS Transaction ID for a prior authenticated transaction. For example, the first recurring transaction that was authenticated with the cardholder.	AN..36	o
PriorAuthenticationTime	Date and time in UTC of the prior cardholder authentication.	N..12 YYYYMMDDHHMM	o
GiftCard	Information regarding gift cards	XML	o
GiftCardAmount	The purchase amount total for prepaid gift cards in major units.	N..15	o
GiftCardCount	Total count of individual prepaid gift cards used.	N..2	o
GiftCardCurrencyCode	ISO 4217 currency code for the gift card purchased.	AN..3	o

AN: Alpha Numerical without special characters
ANP: Alpha Numerical including space and accented characters
ANS: Alpha Numerical including special characters
N: Numerical only
A: Alphabetical only

M: Mandatory
C: Conditional
o: Optional

Example:

```
<?xml version="1.0" encoding="utf-8"?>  
<Customer>  
  <FirstName>Jean</FirstName>  
  <LastName>Dupont</LastName>  
  <Mail>Jean.Dupont@verifone.com</Mail>  
  <CountryCodeMobilePhoneCode>+33</CountryCodeMobilePhoneCode>  
  <CountryCodeMobilePhone>0605040302</CountryCodeMobilePhone>  
</Shipping>
```

5. PAYBOX DIRECT / REMOTE MPI

5.1 IMPACTS

All of the payment attempts passed through Paybox Direct are concerned by the cardholder authentication.

With PSD2 coming into effect, the cardholder authentication will be expected by the card issuer for every payment attempt.

5.1.1 3D-Secure v1

To allow for the transaction to be processed on the Paybox platform, the data from a 3D-Secure authentication will need to be integrated to the Paybox Direct implementation. The processing of the 3D-Secure authentication associated with a payment request can be done by integrating Verifone's Remote MPI Solution. The details for this integration are available in the dedicated integration manual (see Ref 4).

To allow for the authentication of the cardholder without changing the payment integration, the merchant will need to consult its bank in order to obtain a 'VADS' contract (Vente à Distance Sécurisée, French for secured distance sell). This contract will need to be transmitted to Verifone, who will then proceed with the enrollment and the configuration of said contract.

Information: This method imposes a challenge of the cardholder during each payment attempt (sending an SMS for instance). This challenge is a source of friction during the sale.

Warning: From April 2021 transactions without authentication or exemption will be refused. All e-commerce merchants must use 3D-Secure v2 or authenticate systematically the cardholder.

5.1.2 3D-Secure v2

To allow for the transaction to be processed on the Paybox platform, the data from a 3D-Secure authentication will need to be integrated to the Paybox Direct implementation.

To simplify the transition from a 3D-Secure V1 to 3D-Secure V2; the 3DS V2 Authentication associated with a payment request will also be available by integrating Verifone's Remote MPI Solution.

However, this new version of 3D-Secure will only be operational after some changes to the integration of the Remote MPI are made, as described in the paragraph **:4.3 Changes to implement**.

To allow for the authentication of the cardholder without changing the payment integration, the merchant will need to consult its bank in order to obtain a 'VADS' contract (Vente à Distance Sécurisée, French for secured distance sell). This contract will need to be transmitted to Verifone, who will then proceed with the enrollment and the configuration of said contract.

Information: Verifone's recommendation, as well as the French (GIE-CB) and European (ABE) regulatory institutions is to implement 3D-Secure v2.

5.2 CHANGES TO IMPLEMENT

These changes only concern the 3D-Secure v2 implementation.

5.2.1 API call to modify

The changes concern the stage 3 of the Remote MPI cinematics, the call to the iFrame `remoteMPI.cgi`.

The structure of the call remains the same, but some additional data will need to be sent in order to allow for the correct processing of 3D-Secure v2.

Information: The data necessary to display the 3D-Secure v2 authentication pages will be obtained through a JavaScript integrated to the Verifone hosted page with no additional change needed on the merchant's pages.

The return to this call has also evolved and will contain several additional variables one of them being the version of 3D-Secure used.

A return could be:

```
IdSession=QiHMCEVPbaEwlaWgcmgc&StatusPBX=Autorisation à  
faire&3DSTATUS=Y&3DSIGNVAL=Y&3DENROLLED=Y&3DERROR=0&3DECI=05&3DCAVV=MTizNDU  
2Nzg5MDEyMzQ1Njc4OTA=&VERSION3DS=2.1.0&DATEHEURES AISIECVV=210906084427&DSTRANS  
ID=93a7b423-1760-4239-b4b9-836ca0e7161a&ACSTRANSID=98da670b-e1ed-4a76-ab72-  
7b1a40c81b1f&TYPEAUTH3DS=CH&SOUHAITAUTH3DS=01&OPERATEURACS=MerchantACS&NOM  
MARCHANDAUMENT=VeriFone&DATEAUMENT=20210906084425&MONTANTAUMENT=0100&C  
ODEPAYSAUMENT=840&BINACQEREURAUMENT=12345678&IDMARCHANDAUMENT=123456&RE  
QUESTORNAMEAUMENT=verifone&REQUESTORIDAUMENT=verifone20&ID3D=940000005420
```

5.2.2 Data to add – Remote MPI

Data to be added to the call made to the remoteMPI.cgi page:

Warning: To use accented characters and special characters, it will be mandatory to encode them using UTF8.

Name	Description	Type	Presence
EmailPorteur	Cardholder item	AN.6.120 (including @ et .)	M
TypeCarte	Card scheme chose by the Cardholder.	Amongst the following: CB, VISA, MASTERCARD, ELECTRON, MAESTRO, E_CARD, VPAY	o
FirstName	Customer first Name.	ANP..30 (including / - ')	M
LastName	Customer last Name	ANP..30 (including / - ')	M
Address1	Billing Address	ANS..50	M
Address2	Billing Address	ANS..50	o
ZipCode	Zip code for the Billing Address	ANS..16	M
City	City for the Billing Address	ANS..50	M
CountryCode	Country Code for the Billing Address	N..3	M
TotalQuantity	Total number of items composing the order.	N..2	M
ChallengeIndicator	Management of the merchant authentication request. See §3.3	N..2	o
PaymentUseCase	Value indicating the payment use case. Using value 02, 03 or 05 will setup the variable ChallengeIndicator to 04 to conform with current registration requirements.	N..2 01: Simple payment (by default) 02: Recurring transaction. 03: Installment transaction 05: subscription (variable period and/or variable amount)	C1
Installment	Number of instances planned for a recurring transaction.	N..3 [2 .. 999]	C1
RecurringEnd	Recurring transaction end date.	A..8 YYYYYMAAA	C1

RecurringFreq	Installment frequency – number of days. The value 28 or its multiples indicate a monthly or multi-month frequency.	N..4	C1
IdSubscriber	Id of the subscriber to be used during the payment attempt.	AN..250	C2
IdGroup	Subscriber's group (requires a specific and non-necessary option)	N..10	C2

AN: Alpha Numerical without special characters

ANP: Alpha Numerical including space and accented characters

ANS: Alpha Numerical including special characters

N: Numerical only

A: Alphabetical only

M: Mandatory

C: Conditional

o: Optional

Information: If the value of TypeCarte given does not exist, a default value will be used following merchant account configuration on Verifone platform – CB by default.

C1: The conditional information noted C1 are mandatory when attempting the first transaction of a recurring payment or when attempting to create a new installment.

C2: The conditional information noted C2 are necessary to perform an authentication using a subscriber.

Authenticating a subscriber is necessary when the cardholder is present during the payment attempt, the typical case would be a one-click use case.

The parameter **CCNumber** will need to be filled in using the card token and not the cardholder's PAN.

5.2.3 Making a Paybox Direct call

Implementing an authentication using Remote MPI is only completed when the 3D-Secure context is sent in a Paybox Direct call. This transmission is mandatory to trigger a payment request.

Paybox Direct is able to use two different mode to receive the 3D-Secure context.

- Sending the ID3D parameter – the default implementation recommended for most merchants.

Or

- Sending all the following parameters when received during the authentication.

- **Warning:** For an implementation **not** relying on the ID3D, the parameters DATEAUTHENT and MONTANTAAUTHENT will have to be sent whether they were received or not during the authentication.

Variable	Max size	Details
3DSTATUS	1	Authentication request status: Y: Cardholder authenticated N: Cardholder not authenticated A: Attempted authentication by the issuer U: Unable to authenticate due to a technical error
3DENROLLED	1	Cardholder enrolment in 3DS program: Y: Card/Cardholder enrolled. N: Card/Cardholder not enrolled. U: Error
3DECI	2	E-Commerce Indicator. Indicate the level of security for the transaction
3DERROR	6	Error number returned by the MPI.
3DXID	28	Reference sent by the MPI. Encoded using Base64, this variable need to not be URL-encoded when sent to Paybox Direct
3DCAVV	28	Value returned by the ACS. Encoded using Base64, this variable need to not be URL-encoded when sent to Paybox Direct
3DCAVVALGO	64	Identifier of the algorithm used to identify the cardholder on the ACS.
3DSIGNAL	1	Generated by the MPI, indicates the status of the Cardholder signature verification (Y,N)
VERSION3DS	10	Version 3DS (1.0.2, 2.0.1, etc.)
DATEHEURES AISIECVV	12	Date and time the CVV has be used GMT (AAMMDDhhmmss)
NBARTICLES	2	Number of article (max 99)
ADRESSEPORTEUR	50	Cardholder address (ASCII)
CODEPOSTALPORTEUR	16	Cardholder Postal Code

ADRESSELIVRAISON	50	Shipping address
CODEPOSTALLIVRAISON	16	Shipping address Postal Code
PAYSLIVRAISON	3	Shipping address country code
SHIPPING	4096	XML <Shipping> already in use for AmexGCAG, syntax identical to Paybox System, will overwrite the values of ADRESSELIVRAISON, CODEPOSTALLIVRAISON et PAYSLIVRAISON
BILLING	4096	XML <Billing> already in use for AmexGCAG, syntax identical to Paybox System, will overwrite the values of ADRESSEPORTEUR et CODEPOSTALPORTEUR
TYPEAUTH3DS	2	3DSv2 authentication type. CH: Challenge FR: Frictionless FD: Delegated Frictionless
SOUHAITAUTH3DS	2	Merchant authentication request 01: No preference - default value used when the variable is not sent or empty 02: Frictionless requested 03: Authentication requested 04: Authentication required
RAISONSTATUT3DS	2	Transaction status explanation. Linked to the field « Transaction Status Reason » in the EMVCo 3DS v2 specification, returned in messages ARes or RReq
INDICATEURABANDON3D	2	Transaction cancelation indicator. Linked to the field « Challenge Cancelation Indicator » in the EMVCo 3DS v2 specification, returned in messages RReq
SCORECB3DS	2	Score 3DS CB Linked to the field « CB-SCORE » defined by CB as an extension of the ARes message in the EMVCo 3DS v2 protocol.
TYPOLOGIETRANS3DS	2	Type of web usage for this transaction. 00: Payment in-app 01: Payment browser-based
TYPEPREUVE3DS	2	Type of proof generated by the payment solution. 00: EMV 01: VADS

SHOPPINGCART	4096	XML with TotalQuantity identical to the structure used for Paybox System.
DSTRANSID	36	Transaction identifier sent by the 3DSv2 DirectoryServer.
ACSTRANSID	36	Transaction identifier sent by the 3DSv2 ACS
INDICEXEMPTION	4	Exemption indicator (base64)
OPERATEURACS	40	ACS operator identifier.
NOMMARCHANDAUTHENT	40	Merchant name used during authentication.
DATEAUTHENT	14	Authentication date UTC (AAAAMMDDhhmmss)
MONTANTAUTHENT	12	Authentication amount.
ADRESSEIPAUTHENT	40	Authentication IP address.
CODEPAYSAUTHENT	3	Merchant country code used during authentication.
BINACQEREURAUTHENT	20	Acquiring Bin used during authentication.
IDMARCHANDAUTHENT	40	Merchant ID used during authentication.
REQUESTORNAMEAUTHENT	40	Requestor Name used during authentication.
REQUESTORIDAUTHENT	40	Requestor ID used during authentication.

Information: A recurring payment attempt might be refused if a strong authentication was not setup during its creation.

5.2.4 New error code handling

The following error codes can be obtained once the CB2A version 1.6 is setup on the merchant contract.

00201	Fallback on VADS see 4.1.1 Soft Decline
00202	Revocation of a specific recurring payment.
00203	Revocation of every installment of a recurring payment.
00204	Incorrect use of TRA (Transaction Risk Analysis).

6. AMERICAN EXPRESS

6.1 IMPACTS

Implementation of the PSD2 regulation for American Express means setting up the new versions of the SafeKey protocol.

The payment solution needs to update from SafeKey 1.0 to SafeKey 2.1 & SafeKey 2.2.

When describing the changes to implement we will separate the information mandatory for a successful payment attempt from the optional information that will only be used to improve treatment of the transaction.

6.2 CHANGES TO IMPLEMENT

6.2.1 Paybox System

6.2.1.1 Mandatory parameters

These changes are needed to implement SafeKey v2.

The new protocol version will need more information to successfully authenticate the cardholder, the new variable needed will be sent using PBX_BILLING as described below.

Warning: Those variables are to be added in the call sent to Verifone platform and will need to be considered when doing the HMAC calculations.

Information: The mandatory parameters for American Express includes the IP address of the cardholder and the email address, Verifone solution will be able to obtain the information needed for every transaction.

Therefore no modification is needed for those.

PBX_BILLING

Format: XML. **Mandatory.**

The information regarding the cardholder and his/her billing address.

Warning: To use accented characters and special characters, it will be mandatory to encode them using UTF8.

Name	Description	Type	Presence
Billing	XML root tag	XML	M
Address	XML tag	XML	M

CompanyName	Name of the company	ANP..50	o
Title	Customer title	AN..20	o
FirstName	Customer first Name	ANP..30 (including / - ')	M
LastName	Customer last Name	ANP..30 (including / - ')	M
Address1	Billing Address	ANS..50	M
Address2	Billing Address	ANS..50	o
ZipCode	Zip code for the Billing Address	ANS..16	M
City	City for the Billing Address	ANS..50	M
CountryCode	Country code for the Billing Address	N..3	M
CountryCode HomePhone	Country code for the home phone number	1 to 3 digits preceded by +	o
HomePhone	Home phone number	N..10	o
CountryCode MobilePhone	Country code for the mobile phone number	1 to 3 digits preceded by +	o
MobilePhone	Mobile phone number	N..10	o
Custom	Content of this tag is free.	ANS..500	o

AN: Alpha Numerical without special characters
 ANP: Alpha Numerical including space and accented characters
 ANS: Alpha Numerical including special characters
 N: Numerical only
 A: Alphabetical only

M: Mandatory
 C: Conditional
 o: Optional

Example:

```
<?xml version="1.0" encoding="utf-8"?>
<Billing>
  <Address>
    <FirstName>Jean</FirstName>
    <LastName>Dupont</LastName>
    <Address1>12 rue Paul Dautier</Address1>
    <ZipCode>78140</ZipCode>
    <City>Velizy-Villacoublay</City>
    <CountryCode>250</CountryCode>
  </Address>
</Billing>
```

6.2.1.2 Optional parameters

New information can be sent using the variables PBX_BILLING, PBX_SHIPPING & PBX_CUSTOMER as described below.

Warning: Those variables are to be added in the call sent to Verifone platform and will need to be considered when doing the HMAC calculations.

PBX_SHIPPING

Format: XML. Optional

The information regarding the cardholder and his/her shipping address.

Warning: To use accented characters and special characters, it will be mandatory to encode them using UTF8.

Nom	Description	Type	Presence
Shipping	XML root tag	XML	o
Skus	Stock keeping unit	AN..15	o
Address	XML tag	XML	o
FirstName	Customer first Name	ANP..30 (including / - ')	o
LastName	Customer last Name	ANP..30 (including / - ')	o
Address1	Shipping Address	ANS..50	o
Address2	Shipping Address	ANS..50	o
ZipCode	Zip code for the Shipping Address	ANS..16	o
City	City for the Shipping Address	ANS..50	o
CountryCode	Country code for the Shipping Address	N..3	o
CountryCode HomePhone	Country code for the home phone number	1 to 3 digits preceded by +	o
HomePhone	Home phone number	N..10	o
CountryCode MobilePhone	Country code for the mobile phone number	1 to 3 digits preceded by +	o
MobilePhone	Mobile phone number	N..10	o

AN: Alpha Numerical without special characters
 ANP: Alpha Numerical including space and accented characters
 ANS: Alpha Numerical including special characters
 N: Numerical only
 A: Alphabetical only

M: Mandatory
 C: Conditional
 o: Optional

Exemple :

```
<?xml version="1.0" encoding="utf-8"?>
<Shipping>
  <Sku>AR168423K</Sku>
  <Address>
    <FirstName>Jean</FirstName>
    <LastName>Dupont</LastName>
    <Address1>12 rue Paul Dautier</Address1>
    <ZipCode>78140</ZipCode>
    <City>Velizy-Villacoublay</City>
    <CountryCode>250</CountryCode>
  </Address>
</Shipping>
```

PBX_CUSTOMER

Format: XML. Optional

The information regarding the customer.

Warning: To use accented characters and special characters, it will be mandatory to encode them using UTF8.

Nom	Description	Type	Presence
Customer	XML root tag	XML	M
FirstName	Customer first Name	ANP..30 (including / - ')	o
LastName	Customer last Name	ANP..30 (including / - ')	o
Mail	Customer Email	ANS..40	o
CountryCode HomePhone	Country code for the home phone number	1 to 3 digits preceded by +	o
HomePhone	Home phone number	N..10	o
CountryCode MobilePhone	Country code for the mobile phone number	1 to 3 digits preceded by +	o
MobilePhone	Mobile phone number	N..10	o

AN: Alpha Numerical without special characters
 ANP: Alpha Numerical including space and accented characters
 ANS: Alpha Numerical including special characters
 N: Numerical only
 A: Alphabetical only

M: Mandatory
 C: Conditional
 o: Optional

Exemple :

```
<?xml version="1.0" encoding="utf-8"?>
<Customer>
  <CompanyName>Verifone</CompanyName>
  <Title>M</Title>
  <FirstName>Jean</FirstName>
  <LastName>Dupont</LastName>
  <CountryCodeHomePhone>+33</CountryCodeHomePhone>
  <HomePhone>123456789</HomePhone>
  <CountryCodeMobilePhone>+33</CountryCodeMobilePhone>
  <MobilePhone>123456789</MobilePhone>
  <Mail>paybox@verifone.com</Mail>
  <Custom>Custom data 1234567890</Custom>
</Customer>
```

6.2.2 Paybox Direct / Remote MPI request

To be able to process a SafeKey v2 authentication, the information described below will need to be included in the authentication request.

Modifications will also be needed in the authorization request.(see **6.2.3 Paybox Direct / PPS.php request**)

Data to be added to the call made to the remoteMPI.cgi page:

Warning: To use accented characters and special characters, it will be mandatory to encode them using UTF8.

Name	Description	Type	Presence
EmailPorteur	Cardholder item	AN.6.120 (including @ et .)	M
FirstName	Customer first Name.	ANP..30 (including / - ')	M
LastName	Customer last Name	ANP..30 (including / - ')	M
Address1	Billing Address	ANS..50	M
Address2	Billing Address	ANS..50	o
ZipCode	Zip code for the Billing Address	ANS..16	M
City	City for the Billing Address	ANS..50	M
CountryCode	Country Code for the Billing Address	N..3	M
TotalQuantity	Total number of items composing the order.	N..2	M

AN: Alpha Numerical without special characters
 ANP: Alpha Numerical including space and accented characters
 ANS: Alpha Numerical including special characters
 N: Numerical only
 A: Alphabetical only

M: Mandatory
 C: Conditional
 o: Optional

Information: Card type does not need to be specified for an American Express payment attempt since the Paybox identifier used is already unique to the payment mean.

6.2.3 Paybox Direct / PPPS.php request

Adding to the mandatory information requested during the authentication request. (see **6.2.2 Paybox Direct / Remote MPI request**), the authorization request will need to send the following parameters.

6.2.3.1 Mandatory parameters

The parameters to be send to American Express are the Cardholder IP and the Email address, information is to be sent using the following variables.

Nom	Description	Type	Presence
EmailPorteur	Cardholder Email.	AN.6.120 (including @ et .)	M
IPPORTEUR	Cardholder IPv4 address. Several IP addresses can be sent, separated by “;” but only the first one will be considered.	N..49 (and the characters . : and ,)	M

AN: Alpha Numerical without special characters
 ANP: Alpha Numerical including space and accented characters
 ANS: Alpha Numerical including special characters
 N: Numerical only
 A: Alphabetical only

M: Mandatory
 C: Conditional
 o: Optional

Information: The data type will handle IPv4 and IPv6, but currently only IPv4 addresses will be successfully treated by American Express.

6.2.3.2 Optional parameters

Sending the optional information obtained during the authentication will be possible by using the variables BILLING, SHIPPING & CUSTOMER described below.

Warning: Those variables are to be added in the call sent to Verifone platform and will need to be considered when doing the HMAC calculations.

BILLING

Format: XML. Optional

The information regarding the cardholder and his/her billing address.

Warning: To use accented characters and special characters, it will be mandatory to encode them using UTF8.

Name	Description	Type	Presence
Billing	XML root tag	XML	M
Address	XML tag	XML	M
CompanyName	Name of the company	ANP..50	o
Title	Customer title	AN..20	o
FirstName	Customer first Name	ANP..30 (including / - ')	M
LastName	Customer last Name	ANP..30 (including / - ')	M
Address1	Billing Address	ANS..50	M
Address2	Billing Address	ANS..50	o
ZipCode	Zip code for the Billing Address	ANS..16	o
City	City for the Billing Address	ANS..50	M
CountryCode	Country code for the Billing Address	N..3	M
CountryCode HomePhone	Country code for the home phone number	1 to 3 digits preceded by +	o
HomePhone	Home phone number	N..10	o
CountryCode MobilePhone	Country code for the mobile phone number	1 to 3 digits preceded by +	o
MobilePhone	Mobile phone number	N..10	o
Custom	Content of this tag is free.	ANS..500	o

AN: Alpha Numerical without special characters
 ANP: Alpha Numerical including space and accented characters
 ANS: Alpha Numerical including special characters
 N: Numerical only
 A: Alphabetical only

M: Mandatory
 C: Conditional
 o: Optional

Example :

```
<?xml version="1.0" encoding="utf-8"?>
<Billing>
  <Address>
    <FirstName>Jean</FirstName>
    <LastName>Dupont</LastName>
    <Address1>12 rue Paul Dautier</Address1>
    <ZipCode>78140</ZipCode>
    <City>Velizy-Villacoublay</City>
    <CountryCode>250</CountryCode>
  </Address>
</Billing>
```

SHIPPING

Format: XML. Optional

The information regarding the cardholder and his/her shipping address.

Warning: To use accented characters and special characters, it will be mandatory to encode them using UTF8.

Nom	Description	Type	Presence
Shipping	XML root tag	XML	o
Skus	Stock keeping unit	AN..15	o
Address	XML tag	XML	o
FirstName	Customer first Name	ANP..30 (including / - ')	o
LastName	Customer last Name	ANP..30 (including / - ')	o
Address1	Shipping Address	ANS..50	o
Address2	Shipping Address	ANS..50	o
ZipCode	Zip code for the Shipping Address	ANS..16	o
City	City for the Shipping Address	ANS..50	o
CountryCode	Country code for the Shipping Address	N..3	o
CountryCode HomePhone	Country code for the home phone number	1 to 3 digits preceded by +	o
HomePhone	Home phone number	N..10	o
CountryCode MobilePhone	Country code for the mobile phone number	1 to 3 digits preceded by +	o
MobilePhone	Mobile phone number	N..10	o

AN: Alpha Numerical without special characters
 ANP: Alpha Numerical including space and accented characters
 ANS: Alpha Numerical including special characters
 N: Numerical only
 A: Alphabetical only

M: Mandatory
 C: Conditional
 o: Optional

Example :

```
<?xml version="1.0" encoding="utf-8"?>
<Shipping>
  <Sku>AR168423K</Sku>
  <Address>
    <FirstName>Jean</FirstName>
    <LastName>Dupont</LastName>
    <Address1>12 rue Paul Dautier</Address1>
    <ZipCode>78140</ZipCode>
    <City>Velizy-Villacoublay</City>
    <CountryCode>250</CountryCode>
  </Address>
</Shipping>
```

CUSTOMER

Format: XML. Optional

The information regarding the customer.

Warning: To use accented characters and special characters, it will be mandatory to encode them using UTF8.

Nom	Description	Type	Presence
Customer	XML root tag	XML	o
FirstName	Customer first Name	ANP..30 (including / - ')	o
LastName	Customer last Name	ANP..30 (including / - ')	o
Mail	Customer Email	ANS..40	o
CountryCode HomePhone	Country code for the home phone number	1 to 3 digits preceded by +	o
HomePhone	Home phone number	N..10	o
CountryCode MobilePhone	Country code for the mobile phone number	1 to 3 digits preceded by +	o
MobilePhone	Mobile phone number	N..10	o

AN: Alpha Numerical without special characters
 ANP: Alpha Numerical including space and accented characters
 ANS: Alpha Numerical including special characters
 N: Numerical only
 A: Alphabetical only

M: Mandatory
 C: Conditional
 o: Optional

Example:

```
<?xml version="1.0" encoding="utf-8"?>
<Customer>
  <CompanyName>Verifone</CompanyName>
  <Title>M</Title>
  <FirstName>Jean</FirstName>
  <LastName>Dupont</LastName>
  <CountryCodeHomePhone>+33</CountryCodeHomePhone>
  <HomePhone>123456789</HomePhone>
  <CountryCodeMobilePhone>+33</CountryCodeMobilePhone>
  <MobilePhone>123456789</MobilePhone>
  <Mail>paybox@verifone.com</Mail>
  <Custom>Custom data 1234567890</Custom>
</Customer>
```

7. SUBSCRIPTION & TESTS

The surveillance of evolution to the regulation is part of Verifone's activities, and usual working order is maintained. The Verifone representative in contact with the merchant remains the preferred entry point to request changes to the configuration or to the contracts.

7.1 ELIGIBILITY

Testing in the Preproduction environment can be done using the generics contracts given by Verifone, it would also be possible to use the merchant contract after its migration.

Warning: A contract will not allow 3DSv2 testing until it has been migrated on the Verifone platform.

Information: Tests done on the preproduction platform will use a simulator. Different test case can be triggered by using the following card number.

7.2 3DSV2 TEST CARDS

7.2.1 Visa test cases

Authentication success: <ul style="list-style-type: none"> - Card number: 4000000000001091 - Expiry date: January of the following year 	Authentication Frictionless success: <ul style="list-style-type: none"> - Card number: 4000000000001000 - Expiry date: January of the following year
Authentication failed: <ul style="list-style-type: none"> - Card number: 4000000000001109 - Expiry date: January of the following year 	Authentication Frictionless failed: <ul style="list-style-type: none"> - Card number: 4000000000001018 - Expiry date: January of the following year
Authentication status Attempt: <ul style="list-style-type: none"> - Card number: 4000000000001026 - Expiry date: January of the following year 	Error searching for card: <ul style="list-style-type: none"> - Card number: 4000000000001067 - Expiry date: January of the following year
Authentication unavailable: <ul style="list-style-type: none"> - Card number: 4000000000001117 - Expiry date: January of the following year 	Authentication error: <ul style="list-style-type: none"> - Card number: 4000000000001125 - Expiry date: January of the following year

7.2.2 MasterCard test cases

Authentication success: <ul style="list-style-type: none"> - Card number: 5200000000001096 - Expiry date: January of the following year 	Authentication Frictionless success: <ul style="list-style-type: none"> - Card number: 5200000000001005 - Expiry date: January of the following year
Authentication failed: <ul style="list-style-type: none"> - Card number: 5200000000001104 - Expiry date: January of the following year 	Authentication Frictionless failed: <ul style="list-style-type: none"> - Card number: 5200000000001013 - Expiry date: January of the following year
Authentication status Attempt: <ul style="list-style-type: none"> - Card number: 5200000000001021 - Expiry date: January of the following year 	Error searching for card: <ul style="list-style-type: none"> - Card number: 5200000000001062 - Expiry date: January of the following year
Authentication unavailable: <ul style="list-style-type: none"> - Card number: 5200000000001112 - Expiry date: January of the following year 	Authentication error: <ul style="list-style-type: none"> - Card number: 5200000000001120 - Expiry date: January of the following year

7.3 3DSV1 TEST CARDS

Information: The use of 3DSv1 is compliant with the DSP2 but cannot be a long-term solution. This version of the protocol will be stop being supported during the second semester of 2022.

7.3.1 Visa test cases

Authentication success: <ul style="list-style-type: none"> - Card number: 4000000000000002 - Expiry date: January of the following year 	Authentication failed: <ul style="list-style-type: none"> - Card number: 4000000000000028 - Expiry date: January of the following year
Authentication status Attempt: <ul style="list-style-type: none"> - Card number: 4000000000000101 - Expiry date: January of the following year 	Error searching for card: <ul style="list-style-type: none"> - Card number: 4000000000000051 - Expiry date: January of the following year
Authentication unavailable: <ul style="list-style-type: none"> - Card number: 4000000000000069 - Expiry date: January of the following year 	Authentication error: <ul style="list-style-type: none"> - Card number: 4000000000000093 - Expiry date: January of the following year

7.3.2 Mastercard test cases

Authentication success: <ul style="list-style-type: none"> - Card number: 5200000000000007 - Expiry date: January of the following year 	Authentication failed: <ul style="list-style-type: none"> - Card number: 5200000000000023 - Expiry date: January of the following year
Authentication status Attempt: <ul style="list-style-type: none"> - Card number: 5200000000000908 - Expiry date: January of the following year 	Error searching for card: <ul style="list-style-type: none"> - Card number: 5200000000000056 - Expiry date: January of the following year
Authentication unavailable: <ul style="list-style-type: none"> - Card number: 5200000000000064 - Expiry date: January of the following year 	Authentication error: <ul style="list-style-type: none"> - Card number: 5200000000000098 - Expiry date: January of the following year

7.4 SAFEKEY TEST CARDS

7.4.1 SafeKey v2

Authentication success:

- Card number: 340000000001098
- Expiry date: January of the following year

Authentication failed:

- Card number: 340000000001106
- Expiry date: January of the following year

Authentication status Attempt:

- Card number: 340000000001023
- Expiry date: January of the following year

Authentication unavailable:

- Card number: 340000000001114
- Expiry date: January of the following year

Authentication Frictionless success:

- Card number: 340000000001007
- Expiry date: January of the following year

Authentication Frictionless failed:

- Card number: 340000000001015
- Expiry date: January of the following year

Error searching for card:

- Card number: 340000000001064
- Expiry date: January of the following year

Authentication error:

- Card number: 340000000001122
- Expiry date: January of the following year

7.4.2 SafeKey v1

Authentication success:

- Card number: 3400000000003961
- Expiry date: January of the following year

Authentication status Attempt:

- Card number: 3400000000003391
- Expiry date: January of the following year

Authentication unavailable:

- Card number: 3400000000007780
- Expiry date: January of the following year

Authentication failed:

- Card number: 3400000000000033
- Expiry date: January of the following year

Error searching for card:

- Card number: 3400000000008135
- Expiry date: January of the following year

Authentication error:

- Card number: 3400000000009299
- Expiry date: January of the following year