



EVO Gateway

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

Version 6.0 3DS V2.x, May 06, 2021

Notice: The information in this document is confidential and proprietary to EVO and is only intended for use by merchant customers of EVO, internal staff, and authorised business partners of EVO.

This document is protected by copyright restricting its use, replication in any format, and distribution. No part of this document may be reproduced in any form by any means without the express permission of EVO.

EVO reserves the right to amend, delete or add to the contents of the document, at any time, and to make improvements and/or changes to the products and/or programmes described in this document.

Every reasonable attempt will be made to ensure that the contents of the document are accurate, and a true reflection of the products and programmes described herein. However, EVO will not be held liable for any inaccuracies of any nature, however communicated by EVO.

EVO and other trademarks are trademarks or registered trademarks of their respective owners.

All other product names mentioned in this document are the trademarks of their respective owners.

© EVO 2017

Contents

| | |
|--|----|
| Contents..... | 2 |
| Document Purpose..... | 4 |
| PSD2, SCA & 3DSV2.x Considerations | 4 |
| Change Log | 5 |
| 1 Session Token API Operation | 6 |
| 1.1 Session Token Request | 6 |
| 1.1.1 Format | 6 |
| 1.1.2 Definition..... | 6 |
| 1.2 Session Token Response - Processed | 27 |
| 1.2.1 Format | 27 |
| 1.2.2 Definition..... | 27 |
| 1.3 Session Token Response – Not Processed | 27 |
| 1.3.1 Format | 27 |
| 1.3.2 Definition..... | 27 |
| 2 AUTH/PURCHASE/VERIFY API Operation..... | 28 |
| 2.1 Load Payment Form Request | 28 |
| 2.1.1 Format | 28 |
| 2.1.2 Definition..... | 28 |
| 2.2 3DS V1.0 Redirection Response | 29 |
| 2.2.1 Format | 29 |
| 2.2.2 Definition..... | 29 |
| 2.3 Auth/Purchase/Verify Response – Processed..... | 30 |
| 2.3.1 Format | 30 |
| 2.3.2 Definition..... | 30 |
| 2.4 Auth/Purchase/Verify Response – Not Processed..... | 31 |
| 2.4.1 Format | 31 |
| 2.4.1 Definition..... | 31 |
| 3 Payment Form Branding & Localisation | 32 |
| 3.1 Styles & Branding | 32 |
| 3.2 Localisation | 32 |
| Appendix A UAT Trigger Values | 33 |
| Appendix B Country States | 37 |
| B.1 United States..... | 37 |
| B.2 Canada | 38 |
| B.3 Mexico | 39 |
| Appendix C customerAccountInfo Data Elements Definitions | 40 |
| Appendix D merchantAuthInfo Data Elements Definitions..... | 42 |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

Appendix E merchantPriorAuthInfo Data Elements Definitions 43

Appendix F merchantRiskIndicator Data Elements Definitions 44

Document Purpose

The purpose of this document is to describe the AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration) API Operation to enable merchant developers to integrate their webpages with the EVO Gateway. Refer to the *EVO Gateway – 0 – Overview* document for how this API Operation is used in the merchant processes.

The AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration) API Operation allows the merchant using the EVO Gateway's Hosted Payment Page (Payment Form/Cashier) to take payment card data in PCI Compliant environment to initiate authorise and purchase payment card transactions, or the verification of payment card details.

PSD2, SCA & 3DSV2.x Considerations

Changes to the Payment Services Directive (PSD2), embodied in Strong Customer Authentication (SCA) and the updated Third Domain Secure Version 2.1 & 2.2 (3DSV2.x), have added to the data required by Card Schemes. Issuers, Acquirers and Payment Service Providers (PSPs), including the EVO Gateway have been upgrading their systems to take account of the new data requirements.

The one overriding change to card payment transactions that should be understood by all merchants is that all card payment transactions will now be processed through 3DS Authentication. Therefore, merchants will not be able to switch off Authentication processing, except under exceptional circumstances agreed with the Acquirer.

The new data requirements are primarily focussed on providing improved security to the cardholder in the prevention of fraud and card misuse.

Therefore, additional data parameters are provided for in the Session Token Request (section 1.1). In addition, the requirements for some existing parameters have changed in that some parameters that were optional are now mandatory for 3DSV2.x processing. The failure to provide these parameters will automatically channel the transaction through the current 3DS Version 1.0 authentication method.

At the time of writing, it is not known when 3DS Version 1.0 will be retired. Although the Card Schemes have stated that it will be retired, they have not yet provided a firm indication of when this may happen.

To assist the merchant's business analysis of the Session Token Request (section 1.1), the parameters have been grouped with heading rows to provide an overview of those parameters.

To assist the development of integration the new and changed parameters have been shaded in **green**.

Note: as much information should be supplied as is available to the merchant to assist the Issuer with providing a Frictionless Flow, i.e. to authenticate a payment card transaction without the need to challenge the cardholder.

Change Log

| Version | Date | Author | Description of Change |
|---------|----------|----------------------|--|
| 5.0 | 21/04/20 | Vaughan Morgan-Jones | Section 2.1.2: SCA/3DS V2.x parameters added |
| 5.1 | 25/05/20 | Vaughan Morgan-Jones | Section 2.1.2: <ul style="list-style-type: none"> Changed <i>cardOnFileReason</i> to be completed by <i>all</i> merchants Required for authentication purposes Added <i>cardOnFileMaxPayments</i> All Sections: Examples removed – to be reworked in future version App F: Reworded explanation for <i>merchantAuthData</i> |
| 5.2 | 12/06/20 | Vaughan Morgan-Jones | Section 2.1.2: Changes made to External Authentication parameters to provide enumerated values for protocolVersion and require the data for all MPIS, not just Redsys. |
| 5.3 | 07/07/20 | Vaughan Morgan-Jones | Section 2.1.2: <ul style="list-style-type: none"> <i>sdkAppInfo</i>: Added to support App Flow <i>cardOnFileInitialTransactionId</i>: Added note |
| 5.4 | 24/07/20 | Vaughan Morgan-Jones | Section 1.1: Added <i>mmpOrderNumber</i> Corrupted document rebuilt |
| 5.5 | 03/09/20 | Vaughan Morgan-Jones | Section 1.1: Removed values 07 & 08 from merchantChallengeInd |
| 5.6 | 15/09/20 | Vaughan Morgan-Jones | Section 1.1: <ul style="list-style-type: none"> Changed rules for customer address data Added “Condition: Required for 3DSV2.x unless market or regional mandate restricts sending this information.” to Customer Address & IP Address parameters Removed all references to Quick Sales, which are not offered in the EU |
| 5.7 | 17/09/20 | Vaughan Morgan-Jones | Section 1.1.2: Changed rpDueDate = 0 when rpFrequency = 20 & 23 |
| 5.8 | 23/09/20 | Vaughan Morgan-Jones | Section 1.1.2: Changed Requirement for <i>merchantNotificationUrl</i> to ‘N’ |
| 5.9 | 12/11/20 | Vaughan Morgan-Jones | Section 1.1.2: <ul style="list-style-type: none"> Changed requirements for Customer Personal and Address Data to non-mandatory, but highly recommended. Changed parameter size and definition for customerAddressState, customerBillingAddressState and customerShippingAddressState parameters |
| 6.0 | 06/05/21 | Vaughan Morgan-Jones | Section 1.1.2: <ul style="list-style-type: none"> customerIPAddress: Removed reference to IPv6 as not yet supported Descriptions and field size corrected for customerAddressState customerBillingAddressState and customerShippingAddressState Section 2.3.2: <ul style="list-style-type: none"> Added WAITING DEC AUTH to <i>status</i> parameter |

1 Session Token API Operation

1.1 Session Token Request

1.1.1 Format

POST Request to Session Token Request URL (see Section 3 of the EVO Gateway – 0 – Overview document)

1.1.2 Definition

| Parameter | Data Type | Required | Description |
|--|---------------|----------|---|
| Security Data | | | |
| Mandatory to identify the merchant in the EVO Gateway | | | |
| merchantId | Integer (18) | Y | The merchant's account identifier for the merchant in the EVO Gateway provided at on-boarding |
| password | String (64) | Y | The merchant's account password for API Operations in the EVO Gateway provided at on-boarding |
| Transaction Data | | | |
| The Transaction Data defines the type of transaction the merchant is requesting the EVO Gateway to perform, how the transaction result will be managed, and complimentary data required by the Authentication and Authorisation Processes. The transaction result can be the Authentication or Authorisation response. | | | |
| action | String (enum) | Y | <p>Must be "AUTH", "PURCHASE" or "VERIFY"</p> <p>Conditions:</p> <ul style="list-style-type: none"> For EVO Mexico/Banamex eGlobal Installments Plans this must be "AUTH" or "PURCHASE"; plans cannot be initiated from a "VERIFY" operation For Recurring Payments, i.e. where <i>rpPlanType</i> > 0 <ul style="list-style-type: none"> "AUTH" or "PURCHASE" can be used for any <i>rpPlanType</i> "VERIFY" can only be used for <i>rpPlanType</i> = 2 (Direct Debit) or 4 (Pay Per Use) <p>In the case of free-trial period for Pay Per Use Plan Types, or deferred first payment for Direct Debits</p> |
| firstTimeTransaction | Boolean | N | <p>A flag to indicate if the transaction is the customer's first.</p> <p>For some merchant configurations, this forces 3D Secure processing.</p> <p>Note: if a <i>customerId</i> value is not provided, first-time transaction is assumed</p> |
| timestamp | Integer (13) | Y | Milliseconds since 1970-01-01 00:00:00 |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|----------------------|---------------|----------|--|
| merchantChallengeInd | String (enum) | N | <p>Merchant Challenge Indicator: Indicates whether the merchant is requesting a challenge for this transaction, for local/regional mandates or other reasons.</p> <p>It is highly recommended that this parameter is supplied, even if there is no preference ('01')</p> <p>For example: for Payment Authorisations (<i>action</i> = 'AUTH' or 'PURCHASE'), a merchant may have concerns about the transaction, and request a challenge.</p> <p>Some EVO Gateway rules will override a merchant's requirement not to challenge the cardholder:</p> <ol style="list-style-type: none"> 1. A challenge will always be requested for Non-Payment Authorisations (<i>action</i> = 'VERIFY') 2. A challenge will always be requested for <i>cardOnFileType</i> = 'First' 3. A challenge may be requested for if the Acquirer's Transaction Risk Analysis has been performed and requires a challenge request <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = No preference – Default if parameter not provided 02 = No challenge requested 03 = Challenge requested (merchant preference) 09 = Challenge requested - the merchant requests a whitelist prompt if a challenge is required <p>Note: Values '04', '05', '06', '07', '08' and are reserved for EVO Gateway use</p> <p>Netcetera Constraint: Value '09' is only available when Netcetera initiates authentication with EMV 3DS 2.2.0 version or greater. In this instance, the <i>threeDSPreferredProtocolVersion</i> and <i>enforcethreeDSPreferredProtocolVersion</i> parameters should be set appropriately</p> |
| merchantDecReqInd | String (enum) | N | <p>Merchant Decoupled Request Indicator: Indicates whether the merchant requests the Issuer to utilise Decoupled Authentication and agrees to utilise Decoupled Authentication if the Issuer confirms its use.</p> <p>Values accepted:</p> <ul style="list-style-type: none"> Y = Decoupled Authentication is supported and preferred if challenge is necessary N = Do not use Decoupled Authentication - Default if not provided <p>Netcetera Constraint: Parameter is only available when Netcetera initiates authentication with EMV 3DS 2.2.0 version or greater. In this instance, the <i>threeDSPreferredProtocolVersion</i> and <i>enforcethreeDSPreferredProtocolVersion</i> parameters should be set appropriately</p> |
| merchantDecMaxTime | Integer (5) | N | <p>Merchant Decoupled Request Maximum Wait Time: Indicates the maximum amount of time that the merchant will wait for an Issuer to provide the results of a Decoupled Authentication transaction (in minutes). Valid values are between 1 and 10080.</p> <p>If not provided, it is expected that the Issuer will use 10080 minutes (7 days) as a default.</p> <p>Netcetera Constraint: Parameter is only available when Netcetera initiates authentication with EMV 3DS 2.2.0 version or greater. In this instance, the <i>threeDSPreferredProtocolVersion</i> and <i>enforcethreeDSPreferredProtocolVersion</i> parameters should be set appropriately</p> |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|-----------------------------------|---------------|----------|---|
| channel | String (enum) | Y | The transaction channel through which the payment was taken: "ECOM" for card present e-commerce type transactions that are customer initiated, usually through a website checkout screen "MOTO" for card not present transactions that are merchant initiated, usually through a virtual terminal type application developed by the merchant |
| country | String (enum) | Y | The ISO alpha- code country in which the transaction takes place, as defined in the ISO 3166 standard If this is not known or unavailable, the <i>customerAddressCountry</i> will be used. |
| allowOriginUrl | String (256) | Y | The merchant's URL that will make the Auth/Purchase/Verify Request (see Section 2.1) This will usually be the URL of the customer's browser. Cross-Origin Resource Sharing (CORS) headers will allow only this origin |
| merchantNotificationUrl | String (200) | N | The merchant's server-to-server communications URL, to which the Transaction Result Call will be sent It is highly recommended that this parameter is provided, so that the merchant receives a timely result of the payment authentication and authorisation in the Transaction Result Call. If not provided, no immediate notification will be sent to the merchant. The transaction result will be shown in the EVO Gateway Back-Office or it can be retrieved using the GET STATUS API Operation. |
| merchantLandingPageUrl | String (200) | N | The URL to which the customer's browser is redirected for success or failure messaging |
| merchantLandingPageRedirectMethod | String (enum) | N | Determines the method by which the customer is redirected to merchantLandingPageUrl <u>Permitted Values</u> 'POST', 'GET' <ul style="list-style-type: none"> • If the parameter is not included, the API process defaults to POST • If the parameter is included and is 'POST', the API process uses POST • If the parameter is included and is 'GET', the API process uses GET If the parameter is included and is empty/blank, a Session Token Response – Not Processed (section 1.3) with an error is returned |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|---|--------------|----------|---|
| <p>Payment Method Data</p> <p>The Payment Method Data defines how the merchant's customer wishes to pay for an Authorisation or Purchase (<i>action</i> = 'AUTH' or 'PURCHASE')</p> <p>The <i>action</i> = 'VERIFY' can only be performed on payment cards.</p> <p>The following parameters are required for payment cards:</p> <ul style="list-style-type: none"> • <i>paymentSolutionId</i> = 500 • <i>specinCreditCardToken</i> | | | |
| paymentSolutionId | Integer (18) | N | The EVO Gateway Payment Solution Identifier See <i>EVO Gateway – 7 – GET AVAILABLE PAYMENT SOLUTIONS</i> for valid values |
| specinCreditCardToken | String (100) | C | The payment card token received in the TOKENIZE API Operation, see <i>EVO Gateway – 1 – TOKENIZE</i> document Conditions: <ol style="list-style-type: none"> 1. This parameter is required for Card Payments 2. For OneClick transactions this must be the <i>data.oneClickPaymentMethods.payToken</i> returned in the Get OneClick Payment Methods Response – Processed |
| specinProcessWithoutCw2 | Boolean | N | A flag that indicates whether the payment card transaction is to be processed with or without the Card Verification Value [CVV]. The CVV is provided in the <i>specinCreditCardCVV</i> parameter in the Auth/Purchase/Verify Request (Section 2.1). If not provided, a true value is assumed. If the <i>specinCreditCardCVV</i> parameter is then not provided, the Auth/Purchase/Verify Request will be rejected by the EVO Gateway. This requires prior authorization by the EVO Gateway and acquirer. Note: The CVV is also known as Card Security Code (CSC), Card Verification Data [CVD], Card Verification Number, Card Verification Value Code, Card Verification Code [CVC], Verification Code [V-code or V code], or Signature Panel Code [SPC]) |
| forceSecurePayment | Boolean | C | For payment card transactions only, if the merchant has 3D Secure disabled for all transactions as a rule, this field can be used to force 3D Secure processing for individual transactions: <ul style="list-style-type: none"> • If True: forces 3D Secure processing no matter the routing rules • If False, not provided or NULL: the 3D Secure routing rules in the EVO Gateway are used If 3D Secure processing is required, the 3DS Redirection Response (section 2.2) is sent Condition <ul style="list-style-type: none"> • This parameter is only valid for 3DS Version 1.0. In 3DS Version 2.x processing, the <i>merchantChallengeInd</i> is used to determine the merchant's preference for Authentication processing • If <i>cardOnFileType</i> = "Repeat" the <i>forceSecurePayment</i> parameter should be omitted. If it is included with any value (true, false, or empty) the parameter will be ignored |
| processUnknownSecurePayment | Boolean | N | Determines how 3DSV1.0 Authentication Response "U" (Unknown) value is processed: If True and 'U' is returned: a Session Token Response – Not Processed (section 1.3) is returned If 3DS Version 2.x Authentication is used, this parameter is ignored. The processing of the 'U' Authentication response is determined by the transaction status reason provided in the 3DS Authentication process. |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|---|---------------------------|----------|--|
| Merchant Transaction Data | | | |
| Merchant Transaction Data provides information about the merchant's bank account, information needed to recognise the merchant in the acquirer and settlement systems, and data that the merchant wants to add to the transaction for post settlement reconciliation and processing. | | | |
| merchantTxId | String (50) | N | The merchant's reference for the transaction. If the parameter is empty or omitted, a reference will be generated by the EVO Gateway as a hexadecimal string, and returned in the transaction responses It is highly recommended that a value is supplied to reconcile transactions in the EVO Gateway with the merchant's own order management system |
| operatorId | String (20) | N | Identifier of the merchant's operator or agent on behalf of the end customer, if the operation is not performed by the merchant, and the merchant wants to track the operator who performed the transaction |
| brandId | Integer (18) | N | The EVO Gateway Brand Id for the merchant's goods or services that was supplied at on-boarding If not provided the merchant's default EVO Gateway Brand Id will be used |
| bankMid | String (50) | N | The merchant's Bank MID with the Acquirer. Used by the merchant to control which acquirer bank MID will be used for the transaction. |
| limitMin | BigDecimal (15.2 or 15.3) | N | Sets a minimum transaction value allowed to be processed in the EVO Gateway This overrides the minimum value set in the EVO Gateway merchant configuration It is the merchant's responsibility to set a value that will be accepted by the Acquirer and Issuer involved in the transaction process |
| limitMax | BigDecimal (15.2 or 15.3) | N | Sets a maximum transaction value allowed to be processed in the EVO Gateway This overrides the maximum value set in the EVO Gateway merchant configuration It is the merchant's responsibility to set a value that will be accepted by the Acquirer and Issuer involved in the transaction process |
| freeText | String (200) | N | A free text field for use by the merchant that is returned in the Transaction Result Call (<i>see EVO Gateway - 6 - TRANSACTION RESULT CALL</i>) |
| customParam1_OR ... customParam20_OR | String (50) | N | 20 Text Fields that used by merchants to reconcile transactions performed through mobile applications with results from the acquirer. Currently only available for EVO Poland merchants. |
| s_text1,s_text2...s_text5 | String (200) | N | 5 Text fields for general use |
| d_date1,d_date2...d_date5 | Date/Time | N | 5 Date fields for general use. Format: DD/MM/YYYY hh:mm:ss – the time part can be omitted, resulting in 00:00:00 |
| b_bool1,b_bool2...b_bool5 | Boolean | N | 5 Boolean fields for general use – accepted values are "true" and "false" |
| n_num1,n_num2...n_num5 | BigDecimal (7.2) | N | 5 Numeric fields for general use – a dot "." must be used as a decimal separator, not the comma "," and a thousand separator must not be used |
| Customer Browser/App/Device Data | | | |
| The Customer Browser/App/Device Data is required to support Strong Customer Authentication (SCA) and 3DS V2.x when an Authentication Challenge (3DS) is required. Although the parameters are non-mandatory in the initial release, as much information should be supplied as is available. This will enable card issuers to provide more Frictionless Flows in the Authentication processes, where the cardholder is not challenged during the transaction. | | | |
| userDevice | String (enum) | C | Type of device used, accepted values: <ul style="list-style-type: none"> • "MOBILE" • "DESKTOP" Condition: Required for 3DSV2.x. If not supplied, 3DSV1.0 Authentication will be used |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|-------------------|---------------|----------|---|
| userAgent | String (2048) | C | <p>Browser User-Agent: Exact content of the HTTP user-agent header from the browser in which the transaction was performed</p> <p>Note: If the total length of the User-Agent sent by the browser exceeds 2048 characters, the excess content will be truncated.</p> <p>Conditions:</p> <ul style="list-style-type: none"> • Required for 3DSV2.x. If not supplied, 3DSV1.0 Authentication will be used • Required if <i>customerBrowser.browserJavascriptEnabled = true</i> |
| customerIPAddress | String (45) | C | <p>Browser IP Address: IP address of the customer's browser, where the transaction is initiated, as returned by the HTTP headers to the merchant</p> <p>Value accepted: IPv4 address is represented in the dotted decimal format of 4 sets of decimal numbers separated by dots. The decimal number in each and every set is in the range 0 to 255. Example IPv4 address: 1.12.123.255</p> <p>Note: IPv6 address is not yet supported by the EVO Gateway</p> <p>Condition: Required for 3DSV2.x unless market or regional mandate restricts sending this information.</p> |
| language | String (enum) | N | <p>The ISO alpha-2 language code, as defined in ISO 639-1 standard, for the language to be used in the Hosted Payment Page, when loaded to the merchant's webpage.</p> <ul style="list-style-type: none"> • If a supported language code is provided, the language translation will be provided • If not provided or an unsupported language code is provided, the merchant's default language is used <p>[Please consult your eCommerce Support Team for currently supported languages]</p> |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|--|------------------------------|----------|---|
| Transaction Amount Data | | | |
| Transaction Amount Data provides the values of the sale. | | | |
| amount | BigDecimal (15.2 or 15.3) | C | The total transaction amount, including tax, shipping, surcharge and discount amounts Conditions: If <i>action</i> = "AUTH" or "PURCHASE", if a value is supplied this must be >0.00 If <i>action</i> = "VERIFY", this must be 0.00 or omitted See Appendix A - UAT Trigger Values |
| currency | String (enum) | Y | The ISO alpha-3 code for the currency as defined in the ISO 4217 standard |
| taxAmount | BigDecimal (15.2 or 15.3) | N | Tax amount as a currency value (not percentage) If <i>action</i> = "VERIFY", this must be 0.00 or omitted |
| shippingAmount | BigDecimal (15.2 or 15.3) | N | Shipping amount If <i>action</i> = "VERIFY", this must be 0.00 or omitted |
| chargeAmount | BigDecimal (15.2 or 15.3) | N | Surcharge amount If <i>action</i> = "VERIFY", this must be 0.00 or omitted |
| discountAmount | BigDecimal (15.2 or 15.3) | N | Discount amount If <i>action</i> = "VERIFY", this must be 0.00 or omitted |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|--|---------------|----------|---|
| <p>Customer Personal Data</p> <p>Customer Personal Data identifies the customer involved in the transaction. The supply and storage of this data is subject to regional restrictions (such as GDPR in the EU). Although all fields are non-mandatory, the minimum data that should be supplied are <i>customerFirstName</i> and <i>customerLastName</i>, which will allow the merchant to easily identify transactions for their customers in the EVO Gateway Back-Office Transactions Lists.</p> <p>Conditional Parameters:</p> <p>3DS V2.x requires these parameters “unless market or regional mandate restricts sending this information”. Therefore it is the merchant’s responsibility to assess whether they are able or not able to send this information. ‘Market or regional mandate’ also covers situations where the merchant’s own processes do not require this data to be captured, as well as for regulatory restrictions such as GDPR.</p> <p>However, it is highly recommended, if possible, to send this data, if it is available, to enable card issuers to immediately authenticate a transaction – Frictionless Flow</p> <p>Enabling a Frictionless Flow is not solely dependent on these parameters, but the issuers’ decision are enabled with more information</p> | | | |
| customerFirstName | String (50) | C | First name of the customer Condition: See above statement |
| customerLastName | String (100) | C | Last name, surname or family name of the customer Note: This parameter can contain the full name of the customer, if the merchant processes do not capture name elements separately Condition: See above statement |
| customerSex | String (enum) | N | Customer sex: <ul style="list-style-type: none"> • M (male) • F (female) |
| customerDateOfBirth | Date | N | Customer date of birth – format DD/MM/YYYY |
| customerEmail | String (80) | C | Customer email address Condition: See above statement |
| customerPhone | String (100) | C | Customer phone number Condition: See above statement |
| customerDocumentType | String (enum) | N | Type of document used to confirm the customer’s identification EVO Gateway accepted values: <ul style="list-style-type: none"> • PASSPORT • NATIONAL_ID • DRIVING_LICENSE • UNIQUE_TAXPAYER_REFERENCE • OTHER |
| customerDocumentNumber | String (30) | C | Customer document number Condition: Mandatory if <i>customerDocumentType</i> provided |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|--|---------------|----------|--|
| customerDocumentState | String (2) | C | <p>For EVOUS Sales Channel Merchants only, the alpha-2 code for the State that issued the Driver's Licence. Condition: Mandatory if merchant Sales Channel is 'EVOUS' and <i>customerDocumentType</i> = 'DRIVING_LICENSE' and if <i>country</i> =</p> <ul style="list-style-type: none"> • 'US' alpha-2 code for the US State that issued the licence – see Section B.1 • 'CA' alpha-2 code for the Canadian State that issued the licence – see Section B.2 • 'MX' alpha-2 code for the Mexican State that issued the licence – see Section B.3 • Else set to NULL |
| <p>Payer Data The payer data is required by some regions and payment services, e.g. PayU Latam in Brazil, and so should only be completed if required by regulation. This data is not used to differentiate between the customer and someone else paying for the transaction. No checking or validation is performed by the EVO Gateway.</p> | | | |
| payerFirstName | String (50) | N | Payer first name, if the Payee is different to the Customer Condition: Required by some regions and payment services, e.g. PayU Latam in Brazil |
| payerLastName | String (100) | N | Payer last name, if the Payee is different to the Customer Condition: Required by some regions and payment services, e.g. PayU Latam in Brazil |
| payerEmail | String (80) | N | Payer email, if the Payee is different to the Customer Condition: Required by some regions and payment services, e.g. PayU Latam in Brazil |
| payerDateOfBirth | Date | N | Payer date of birth, if the Payee is different to the Customer Condition: Required by some regions and payment services, e.g. PayU Latam in Brazil |
| payerPhone | String (100) | N | Payer phone, if the Payee is different to the Customer Condition: Required by some regions and payment services, e.g. PayU Latam in Brazil |
| payerDocumentType | String (enum) | N | Type of document used to confirm the payer's identification, if the Payee is different to the Customer EVO Gateway accepted values: <ul style="list-style-type: none"> • PASSPORT • NATIONAL_ID • DRIVING_LICENSE • UTR • OTHER Condition: Required by some regions and payment services, e.g. PayU Latam in Brazil |
| payerDocumentNumber | String (30) | C | Payer document number, if the Payee is different to the Customer Conditions: <ul style="list-style-type: none"> • Required by some regions and payment services, e.g. PayU Latam in Brazil • Mandatory if <i>payerDocumentType</i> provided |
| payerCustomerId | String (20) | C | Customer identifier of the payee in the merchant's system Conditions: <ul style="list-style-type: none"> • Required by some regions and payment services, e.g. PayU Latam in Brazil • Required if the payee is also a customer of the merchant |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|--|--------------|----------|--|
| Customer Account Data with the Merchant Customer Account Data is used in the EVO Gateway to supplement the transaction data to support Frictionless Flows in Strong Customer Authentication (SCA) and 3DSV2.x. This parameter is optional, but it is recommended that it is provided if this information is available. Although individual data elements are optional, as much available information should be provided as is available. | | | |
| customerid | String (20) | N | Customer identifier in the merchant system, or the value generated by the EVO Gateway in a previous original payment transaction using the payment card or method. The value is used to validate that the payment card token is for the correct customer. If the <i>customerid</i> value is not the same held against the payment card token in the EVO Gateway database a Session Token Response – Not Processed (section 1.3) is returned. This must be the value supplied in or by the TOKENIZE API Operation. The value is used to validate that the payment card token is for the correct customer. <ul style="list-style-type: none"> • Mandatory for payment cards method • Optional for alternative payment methods • If the parameter is omitted or no value is provided for a first time use of the payment card, the EVO Gateway will generate a value, which will be stored internally against the payment method and returned in the Auth/Purchase/Verify Response – Processed (section 2.3) |
| payerCustomerid | String (20) | N | Customer identifier of the payee in the merchant's system Required by some regions and payment services, e.g. PayU Latam in Brazil, if the payee is also a customer of the merchant |
| merchantReference | String (200) | N | Merchant's supplementary information about customer Note: this information is only stored in the EVO Gateway, and not used in the payment process |
| customerRegistrationDate | Date | N | Customer registration date on merchant's site – format DD/MM/YYYY This parameter is optional, but it is recommended that it is provided if the information is available. Notes: <ol style="list-style-type: none"> 1. Used in the 3DS V2.x Authentication process as part of the <i>customerAccountInfo</i> 2. Used for reporting and in some risk tools where required |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|---------------------|-------------|----------|---|
| customerAccountInfo | JSON Object | N | <p>Customer Account Information: Additional information about the Cardholder's account provided by the merchant.</p> <p>This parameter is optional, but it is recommended that it is provided if the information is available.</p> <p>Format:</p> <pre> "customerAccountInfo" : { "custAccAgeInd": " ... ", "custAccChange": " ... ", "custAccChangeInd": " ... ", "custAccPwChange": " ... ", "custAccPwChangeInd": " ... ", "custPurchaseCount": " ... ", "custProvisionAttemptsPerDay": " ... ", "custTxnActivityDay": " ... ", "custTxnActivityYear": " ... ", "custPaymentAccAge": " ... ", "custPaymentAcInd": " ... ", "custShipAddressUsage": " ... ", "custShipAddressUsagelnd": " ... ", "custShipNameIndicator": " ... ", "custSuspiciousAccActivity": " ... " } </pre> <p>See below for the data elements' definitions.</p> <p>Note: Cardholder Account Information data elements used to define a time period can be included as either the specific date or an approximate indicator for when the action occurred. Merchants can use either parameter, e.g. use <i>chAccAgeInd</i> or <i>chAccChange</i>, using both is unnecessary.</p> <p>See Appendix C - customerAccountInfo Data Elements Definitions for the data elements' definitions.</p> |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|---|---------------|----------|--|
| <p>Customer Address Data</p> <p>Customer address data are required for 3DSV2.x Authentication unless market or regional mandate restricts sending this information. If address is included, at least one of <i>customerAddressHouseName</i>, <i>customerAddressHouseNumber</i> or <i>customerAddressFlat</i> should be provided. The <i>customerBillingAddress</i> and <i>customerShippingAddress</i> parameters are marked as Not Required (N) to allow for merchant flexibility in their data encoding:</p> <ol style="list-style-type: none"> 1. If <i>customerBillingAddress</i> data are omitted, the <i>customerAddress</i> data will be used for the customer billing address 2. If <i>customerShippingAddress</i> data are omitted, the <i>customerAddress</i> data will be used for the customer shipping address <p>Therefore:</p> <ol style="list-style-type: none"> A. To use the <i>customerAddress</i> parameters as the customer's billing and shipping address, omit the <i>customerBillingAddress</i> and <i>customerShippingAddress</i> parameters B. To use the <i>customerBillingAddress</i> as the customer's shipping address, but different to the <i>customerAddress</i> values, complete the <i>customerShippingAddress</i> parameters with the same data C. To use the <i>customerAddress</i> parameters as the customer's billing address and have a different shipping address, omit the <i>customerBillingAddress</i> and complete the <i>customerShippingAddress</i> parameters D. To use the <i>customerAddress</i> parameters as the customer's shipping address and have a different billing address, omit the <i>customerShippingAddress</i> and complete the <i>customerBillingAddress</i> parameters <p>Conditional Parameters:</p> <p>3DS V2.x requires these parameters "unless market or regional mandate restricts sending this information". Therefore it is the merchant's responsibility to assess whether they are able or not able to send this information. 'Market or regional mandate' also covers situations where the merchant's own processes do not require this data to be captured, as well as for regulatory restrictions such as GDPR.</p> <p>However, it is highly recommended, if possible, to send this data, if it is available, to enable card issuers to immediately authenticate a transaction – Frictionless Flow</p> <p>Enabling a Frictionless Flow is not solely dependent on these parameters, but the issuers' decision are enabled with more information</p> | | | |
| customerAddressHouseName | String (50) | C | Customer correspondence address house name Condition: See above statement |
| customerAddressHouseNumber | String (5) | C | Customer correspondence address house number Condition: See above statement |
| customerAddressFlat | String (5) | C | Customer correspondence address flat Condition: See above statement |
| customerAddressStreet | String (50) | C | Customer correspondence address street The customer's street should be supplied whenever possible as it is used with the <i>customerAddressPostalCode</i> value for AVS (Address Verification System) Checks, and so reduce the possibility of a payment decline Condition: See above statement |
| customerAddressCity | String (50) | C | Customer correspondence address city Condition: See above statement |
| customerAddressDistrict | String (50) | N | Customer correspondence address district |
| customerAddressPostalCode | String (30) | C | Customer correspondence address postal code Condition: See above statement |
| customerAddressCountry | String (enum) | C | Customer correspondence address country: The ISO alpha-2 code as defined in the ISO 3166 standard Note: this will be used if <i>country</i> field is not supplied Condition: See above statement |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|------------------------------------|---------------|----------|--|
| customerAddressState | String (40) | C | Customer correspondence address state, county or province It should be noted for 3DS V2.x that the spelling and content should be as shown in the ISO-3166-2 standard, as the value will be converted to the ISO Code for the Authentication process. If the EVO Gateway cannot identify a code, null or no state code will be sent in the Authentication Request. This will not prevent the transaction from being processed. Condition: See above statement |
| customerAddressPhone | String (100) | N | Customer correspondence address phone |
| customerBillingAddressHouseName | String (50) | N | Customer billing address house name |
| customerBillingAddressHouseNumber | String (5) | N | Customer billing address house number |
| customerBillingAddressFlat | String (5) | N | Customer billing address flat |
| customerBillingAddressStreet | String (50) | N | Customer billing address street |
| customerBillingAddressCity | String (50) | N | Customer billing address city |
| customerBillingAddressDistrict | String (50) | N | Customer billing address district |
| customerBillingAddressPostalCode | String (30) | N | Customer billing address postal code |
| customerBillingAddressCountry | String (enum) | N | Customer billing address country The ISO alpha-2 code as defined in the ISO 3166 standard |
| customerBillingAddressState | String (40) | N | Customer billing address state It should be noted for 3DS V2.x that the spelling and content should be as shown in the ISO-3166-2 standard, as the value will be converted to the ISO Code for the Authentication process. If the EVO Gateway cannot identify a code, null or no state code will be sent in the Authentication Request. This will not prevent the transaction from being processed. |
| customerBillingAddressPhone | String (100) | N | Customer billing address phone |
| customerShippingAddressHouseName | String (50) | N | Customer shipping address house name |
| customerShippingAddressHouseNumber | String (5) | N | Customer shipping address house number |
| customerShippingAddressFlat | String (5) | N | Customer shipping address flat |
| customerShippingAddressStreet | String (50) | N | Customer shipping address street |
| customerShippingAddressCity | String (50) | N | Customer shipping address city |
| customerShippingAddressDistrict | String (50) | N | Customer shipping address district |
| customerShippingAddressPostalCode | String (30) | N | Customer shipping address postal code |
| customerShippingAddressCountry | String (enum) | N | Customer shipping address country The ISO alpha-2 code as defined in the ISO 3166 standard |
| customerShippingAddressState | String (40) | N | Customer shipping address state, county or province It should be noted for 3DS V2.x that the spelling and content should be as shown in the ISO-3166-2 standard, as the value will be converted to the ISO Code for the Authentication process. If the EVO Gateway cannot identify a code, null or no state code will be sent in the Authentication Request. This will not prevent the transaction from being processed. |
| customerShippingAddressPhone | String (100) | N | Customer shipping address phone |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|---|-------------|----------|---|
| <p>Additional Authentication Data</p> <p>The Additional Authentication Data has been introduced by the Secure Customer Authentication (SCA) and 3DSV2.x processes to combat fraud and increase electronic payment security for customers.</p> <p>Although the parameters are non-mandatory in the initial release, it is highly recommended to provide as much information as possible. This will enable card issuers to provide more Frictionless Flows in the Authentication processes, where the cardholder is not challenged during the transaction.</p> | | | |
| merchantAuthInfo | JSON Object | N | <p>Merchant Authentication Information: Information about how the merchant authenticated the cardholder before or during the transaction.</p> <p>This parameter is optional, but it is recommended that it is provided if the information is available. Also, although the individual data elements are optional, as much available information should be provided as is available.</p> <p>Format:</p> <pre style="margin-left: 40px;"> "merchantAuthInfo": { "merchantAuthData": "...", "merchantAuthMethod": "...", "merchantAuthTimestamp": "... " } </pre> <p>See Appendix D - merchantAuthInfo Data Elements Definitions for the data elements' definitions.</p> |
| merchantPriorAuthInfo | JSON Object | N | <p>Merchant Prior Transaction Authentication Information: Information about how the merchant authenticated the cardholder as part of a previous 3DS transaction.</p> <p>This parameter is optional, but it is recommended that it is provided if the information is available. Also, although the individual data elements are optional, as much available information should be provided as is available.</p> <p>Format:</p> <pre style="margin-left: 40px;"> "merchantPriorAuthInfo": { "merchantPriorAuthData": "...", "merchantPriorAuthMethod": "...", "merchantPriorAuthTimestamp": "...", "merchantPriorRef": "... " } </pre> <p>If any data element is not provided, this object will not be included in the Authentication Request</p> <p>See Appendix E - merchantPriorAuthInfo Data Elements Definitions for the data elements' definitions.</p> |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|-----------------------|-------------|----------|--|
| merchantRiskIndicator | JSON Object | N | <p>Merchant Risk Indicator: Merchant’s assessment of the level of fraud risk for the specific authentication for both the cardholder and the authentication being conducted. This parameter is optional, but it is recommended that it is provided if this information is available. Also, although the individual data elements are optional, as much available information should be provided as is available. Format:</p> <pre> "merchantRiskIndicator": { "deliveryTimeframe": " ... ", "giftCardAmount": " ... ", "giftCardCount": " ... ", "giftCardCurr": " ... ", "preOrderDate": " ... ", "preOrderPurchaseInd": " ... ", "reorderItemsInd": " ... ", "shipIndicator": " ... " } </pre> <p>See Appendix F - merchantRiskIndicator Data Elements Definitions for the data elements’ definitions.</p> |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|---|-------------|----------|--|
| <p>Card On File Transactions Required Parameters</p> <p>Transactions that are initiated by stored payment card credentials, stored either by the merchant or in the EVO Gateway, must be identified in the payment process through to the Card Issuers and Card Schemes. By their nature, these transactions, where the cardholder is not present at the point of initiation, will not have card or cardholder authentication data accompanying the transaction. To enable the Schemes and Issuers to assess risk and determine potential fraud accurately, new indicators and processes have been introduced to provide greater clarity into transactions using stored credentials.</p> <p>The following '<i>cardOnFile</i>' prefixed parameters are provided to comply with these requirements. These parameters must be provided for:</p> <ul style="list-style-type: none"> • Recurring Payments Plans transactions – these are Plans managed by the merchant, either initiated using this API or the EVO Gateway's Hosted Payment Page • Stored Credential Payments – these are where the cardholder has consented to the merchant storing the card details (except the CVV/CSC), which will be presented back to the cardholder in future payments, so that the customer does not have to re-enter the payment card information <p>The field rules are:</p> <ul style="list-style-type: none"> • For the initial transaction: <ul style="list-style-type: none"> ○ <i>cardOnFileType</i> is set to 'First' only ○ <i>cardOnFileInitiator</i> and <i>cardOnFileInitialTransactionId</i> parameters are omitted <p>Note: if the <i>cardOnFileInitiator</i> and <i>cardOnFileInitialTransactionId</i> parameters are included they will be ignored by the EVO Gateway</p> • Subsequent (recurring) payment requests must have the following values: <ul style="list-style-type: none"> ○ <i>cardOnFileType</i> is set to 'Repeat' ○ <i>cardOnFileInitiator</i> is set to <ul style="list-style-type: none"> ▪ 'Merchant' for Recurring Payments ▪ 'Cardholder' for OneClick <p><i>cardOnFileInitialTransactionId</i> is set to the <i>merchantTxId</i> value returned in the Auth/Purchase/Verify Response – Processed (section 2.3) of the initial transaction</p> | | | |
| cardOnFileType | String (10) | C | <p>Indicates if the transaction is the first in a series of COF transactions or a transaction from already stored credentials</p> <p>Conditions: Mandatory if the payment originates from stored payment card credentials, i.e. the cardholder or merchant user did not input the card data during the transaction process, e.g. OneClick or pre-populated payment pages from stored card data</p> <p>Permitted Values</p> <p>“First”: If the transaction is starting a series of COF transactions</p> <p>“Repeat”: If the transaction is a subsequent transaction</p> |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|-----------------------|-------------|----------|--|
| cardOnFileReason | String (1) | C | <p>Indicates the type of series of COF transactions</p> <p>Condition: Mandatory</p> <ul style="list-style-type: none"> • If <i>cardOnFileType</i> = "First" or "Repeat" • And for 3DS V2.x <p>Values:</p> <ul style="list-style-type: none"> • "I": Installments • "R": Recurring • "H": Reauthorization • "E": Resubmission • "D": Delayed • "M": Incremental • "N": No Show • "C": Other |
| cardOnFileMaxPayments | Integer (3) | C | <p>Indicates the maximum number of authorisations permitted for instalment payments, where <i>cardOnFileReason</i> = 'I'. Must be greater than 1.</p> <p>Condition: Mandatory</p> <ul style="list-style-type: none"> • If the Merchant and Cardholder have agreed to instalment payments, i.e. <i>cardOnFileReason</i> = 'I' • And for 3DS V2.x |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|---|-------------|----------|--|
| <p>Merchant Managed Recurring Payment Plan Required Parameters</p> <p>The following fields prefixed with “<i>mmp</i>” are provided for the merchant to be able to send transaction data from Merchant Managed Recurring Payment Plans. These data are required by the Acquirer, Issuers and Card Schemes to recognise that a Recurring Payment Plan is being created and to accept subsequent transactions in a plan as being related to the initiating transaction.</p> <p>A Recurring Payment transaction is a transaction for which a cardholder provides written permission to a merchant to periodically charge his/her account number for recurring goods or services. These may include payment of charges such as insurance premiums, subscriptions, membership fees, tuition or utility charges. The recurring transaction indicator must be present in the authorization/initial purchase/sale. Address verification must be obtained with the initial transaction and is not required in the subsequent recurring transactions that contain the recurring indicator. Address verification is required to be obtained yearly.</p> <p>Notes:</p> <ol style="list-style-type: none"> The data values must be as stated in the Description The data must be accompanied with the “<i>cardOnFile</i>” prefixed data above <p>The data are not required if the merchant is setting up an EVO Gateway Managed Recurring Payment Plan in the EVO Gateway (see the “<i>rp</i>” prefixed fields below)</p> | | | |
| mmpBillPayment | String (10) | N | For the initial and subsequent transactions must be set to “Recurring” |
| mmpCustomerPresent | String (12) | C | For the initial and subsequent transactions must be set to “BillPayment” Condition: required if mmpBillPayment = “Recurring” |
| mmpOriginalMerchantTransactionId | String (50) | C | For the initial and subsequent transactions must be set to the <i>merchantTxId</i> parameter value Condition: required if mmpBillPayment = “Recurring” |
| mmpRecurringExpiry | Date | C | Date after which no further recurring payments authorisations shall be performed, i.e. the expected date of the final payment of the Recurring Payments Plan. Format: YYYYMMDD Condition: Mandatory: <ul style="list-style-type: none"> If mmpBillPayment = “Recurring” And for 3DS V2.x |
| mmpRecurringFrequency | Integer (4) | C | The minimum number of days between Plan payments. Examples: <ul style="list-style-type: none"> Daily Plans: 1 Weekly Plans: 7 Monthly Plans 28 Condition: Mandatory: <ul style="list-style-type: none"> If <i>mmpBillPayment</i> = “Recurring” And for 3DS V2.x |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|--|--------------|----------|--|
| <p>EVO Gateway Recurring Payment Plan Setup Required Parameters</p> <p>The following fields prefixed with “rp” are provided for the merchant to be able to set up an EVO Gateway Managed Recurring Payment Plan with their customer in the EVO Gateway. The data must only be sent with the Request for the payment/verification that will initiate the Recurring Payment Plan series of payments. All subsequent payment requests will be generated by the EVO Gateway. The transaction results will be returned to the merchant in a Transaction Result call when complete. The EVO Gateway Managed Recurring Payment Plans created by this process can be seen and managed in the EVO Gateway Back-Office/Virtual Terminal Recurring Payments menu option.</p> <p>Notes:</p> <ol style="list-style-type: none"> If the parameters are completed, the ‘cardOnFileType’ parameter must be set to “First”. If not, an error will be returned stating that the parameter is missing. If the merchant has not been configured for Recurring Payments in the EVO Gateway and data is present where <i>rpPlanType</i> > 0, an error will be returned stating that the merchant is not authorised for Recurring Payments and the payment will not be processed. <p>Errors will be returned in the Session Token Response – Not Processed (section 1.3) Therefore, for merchants that have not been configured for Recurring Payment Plans all these fields must be omitted or empty (<i>rpPlanType</i> can be set to ‘0’).</p> | | | |
| rpPlanType | Number (1) | C | <p>Defines the type of Recurring Payment to be created</p> <p>Condition: Only required in the initial transaction to create the recurring payment plan in the EVO Gateway</p> <p>Permitted Values:</p> <ul style="list-style-type: none"> 0 or missing = None (all Recurring Payments fields must be empty/will be ignored) 1 = Subscription 2 = Direct Debit 3 = Repayment 4 = Pay Per Use |
| rpPlanName | String (200) | C | <p>The name of the Recurring Payments Plan given by the merchant</p> <p>Condition: Required if <i>rpPlanType</i> > 0</p> <p>Permitted Values: free text for the merchant’s easy reference in the EVO Gateway Back-Office/Virtual Terminal</p> |
| rpFrequency | Number (2) | C | <p>Indicates how often payments are taken.</p> <p>Condition: Required if <i>rpPlanType</i> > 0</p> <p>Permitted Values: The value is dependent on the <i>rpPlanType</i> value:</p> <ul style="list-style-type: none"> If <i>rpPlanType</i> = 4 must be <ul style="list-style-type: none"> 0 Ad hoc or not known Else one of the following <ul style="list-style-type: none"> 20 Daily 23 Every 3 Days 1 Weekly 22 Every 2 Weeks 2 Monthly 3 Every 3 Months / Quarterly 4 Every 6 Months 5 Yearly |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|-------------------|---------------------------|----------|--|
| rpNoOfPayments | Number (3) | C | <p>The total number of payments to be taken Condition: Required if <i>rpPlanType</i> > 0 Permitted Values: The value is dependent on the <i>rpPlanType</i> value:</p> <ul style="list-style-type: none"> 1 can be 0 or > 1 2 can be 0 or > 1 3 must be > 1 4 must be 0 <p>If the plan is open-ended then <i>rpNoOfPayments</i> must be 0 If the plan is fixed term, then <i>rpNoOfPayments</i> must be > 1 (the first payment counts as 1)</p> |
| rpDueDay | Number (2) | C | <p>Defines the date on which the payment is due. This value is used to calculate the next payment due date after a payment is taken. Only for the second payment after the initial payment, this can be overridden by <i>rpNextPaymentDate</i>, but the third and subsequent payments will be calculated from the <i>rpFrequency</i> and <i>rpDueDay</i> values provided. Note: these can be changed in the Back-Office/Virtual terminal Recurring Payments Plan menu option. Condition: Required if <i>rpPlanType</i> > 0 Permitted Values: The value is dependent on the <i>rpFrequency</i> value:</p> <ul style="list-style-type: none"> If <i>rpFrequency</i> = 0, 20 or 23 0 If <i>rpFrequency</i> = 1 or 22 <ul style="list-style-type: none"> >= 1 and <= 7 the day of the week (where Monday = 1) If <i>rpFrequency</i> = 2, 3, 4 or 5 <ul style="list-style-type: none"> >= 1 and <= 28 the day of the month, or 32 the last day of the month |
| rpNextPaymentDate | Date | C | <p>Used to force a specific date when the second payment of the Recurring Payment Plan must be taken. Condition: Can be provided if <i>rpPlanType</i> > 0 If not provided the next <i>rpNextPaymentDate</i> will be calculated from the <i>rpFrequency</i> and <i>rpDueDay</i> Permitted Values: a date in the format DD/MM/YYYY</p> |
| rpAmount | BigDecimal (15.2 or 15.3) | C | <p>The amount to be recovered from the payment card for each subsequent Recurring Payment. This can be different from the initial payment provided in the <i>amount</i> field above. Condition: Required if <i>rpPlanType</i> > 0 Permitted Values: The value is dependent on the <i>rpPlanType</i> value:</p> <ul style="list-style-type: none"> 1 > 0.00 2 can be 0.00 or greater 3 > 0.00 4 can be 0.00 or greater <p>If <i>rpAmount</i> = 0.00, the merchant will provide the values to the EVO Gateway in text files supplied to the SFTP folder</p> |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Required | Description |
|-----------------------|------------------------------|----------|---|
| rpFinalAmount | BigDecimal (15.2 or 15.3) | C | The final amount to be recovered from the payment card when a fixed term AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration) Plan ends. Condition: Required if <i>rpPlanType</i> > 0 Permitted Values: The value is dependent on the <i>rpPlanType</i> value: 1 must be 0.00 2 must be 0.00 3 must be > 0.00 can be the same as <i>rpAmount</i> 4 must be 0.00 |
| rpContractNumber | String (50) | C | The unique Contract Number between the merchant and cardholder for the Recurring Payment Plan Condition: Required if <i>rpPlanType</i> is provided and merchant's sales channel is Ba namex (EVO MX) Only used by merchants from the EVO MX Sales Channel |
| rpReceiptEmail | String (256) | C | The email address to which receipts should be sent for all the subsequent recurring payments. A receipt will be sent for all results of those transactions, i.e. whether successful, declined or an error. Condition: if <i>rpReceiptRequired</i> = 1 this field must be completed |
| rpCardUpdaterInterval | Integer | C | Denotes the time interval in days between successive processing of payment cards through the Card Updater Service. The maximum interval allowed by the Card Schemes is 6 months, 180 days. Condition: Can be provided if <i>rpPlanType</i> > 0 This is a value that is applied to the Recurring Payments Plan and will override the default value configured for the merchant in the EVO Gateway. The field allows the merchant to change the time interval for selected Recurring Payment Plans. Permitted Values: Must be an integer <=180 |

1.2 Session Token Response - Processed

1.2.1 Format

JSON

1.2.2 Definition

| Parameter | Data Type | Description |
|-------------------|--------------|--|
| result | String (40) | Will always be "success" |
| merchantId | Integer (18) | The <i>merchantId</i> value received in the Session Token Request (section 1.1) |
| token | String (40) | The Session Token that is a one-time use, hexadecimal string The Token that must only be used for the Load Payment Form Request (section 2.1) Session tokens are valid for 3600 second (1 hour) after which they expire Any requests with expired session tokens will be rejected |
| resultId | String (40) | Hexadecimal string that is to be used in any support request calls |
| processingTime | Integer (6) | The time in seconds for the process to complete |
| additionalDetails | Array | Not used – will always be "{}" or not included |

1.3 Session Token Response – Not Processed

1.3.1 Format

JSON

1.3.2 Definition

| Parameter | Data Type | Description |
|-------------------|--------------|--|
| result | String (40) | Will always be "failure" |
| errors | String Array | List of issues |
| resultId | String (40) | Hexadecimal string that is to be used in any support request calls |
| processingTime | Integer (6) | The time in seconds for the process to complete |
| additionalDetails | Array | Not used – will always be "{}" or not included |

2 AUTH/PURCHASE/VERIFY API Operation

The Payment Form is a PCI Compliant Payment Form provided by the EVO Gateway.

The Payment Form is loaded to the merchant's website using the *integrationMode* parameter. The cardholder will enter the payment card details in to the Payment Form at the point of sale.

The Payment Form can be customised to match the merchant's payment screen – see Section 3 - Payment Form Branding & Localisation.

2.1 Load Payment Form Request

2.1.1 Format

POST Request to Action Request URL (see Section 3 of the *EVO Gateway – 0 – Overview* document)

2.1.2 Definition

| Parameter | Data Type | Mandatory | Description |
|-----------------|---------------|-----------|--|
| merchantId | Integer (18) | Y | The identifier for the merchant in the EVO Gateway provided at on-boarding This must be the same as that sent in the Session Token Request (section 1.1) |
| token | String (40) | Y | Session Token received in the Session Token Response - Processed (section 1.2) |
| containerId | String | C | The ID of the HTML element on the merchant's webpage in which to wrap the Payment Form - required for JavaScript based integration |
| successCallback | String | C | The JavaScript function name to be called in the event of a successful transaction |
| failureCallback | String | C | The JavaScript function name to be called in the event of a failed or declined transaction |
| cancelCallback | String | C | The JavaScript function name to be called in the event of a user cancelled transaction |
| bannerUrl | String | N | The merchant's URL of a resource (html page, image) to replace the default footer in the Hosted Payment Page with a logo |
| integrationMode | String (enum) | C | The method that the merchant's webpage will use to load the Hosted Payment Page, accepted values: <ul style="list-style-type: none"> • Inject • Iframe • Standalone • HostedPaymentPage (only for use by EVO PL) |

2.2 3DS V1.0 Redirection Response

The 3DS V1.0 Redirection Response is used by the merchant's system to open the 3DS challenge window in the customer's browser, for the customer to enter their security information to confirm their identity.

The 3DS V1.0 Redirection Response is sent if:

- *forceSecurePayment* parameter = True, in the Session Token Request (section 1.1), or
- the 3D Secure routing rules held in the EVO Gateway for the merchant require that card payment transactions are subject to 3DS Version 1.0

2.2.1 Format

JSON

2.2.2 Definition

| Parameter/Label | Data Type | Description |
|-----------------|---------------|---|
| result | String (enum) | Will always be "redirection" |
| merchantId | Integer (18) | The <i>merchantId</i> value received in the Session Token Request (section 1.1) |
| merchantTxId | String (50) | The merchant's reference for the transaction provided in the Session Token Request (section 1.1) or that generated by the EVO Gateway |
| txId | Integer (18) | The unique identifier for the transaction in the EVO Gateway |
| redirectionUrl | String (URL) | The URL to which the customer's browser must be redirected after the 3D Secure processing is completed |

2.3 Auth/Purchase/Verify Response – Processed

2.3.1 Format

JSON

2.3.2 Definition

| Parameter | Data Type | Description |
|------------------------|---------------------------|---|
| result | String (40) | Will always be “success” |
| merchantId | Integer (18) | The <i>merchantId</i> value received in the Session Token Request (section 1.1) |
| merchantTxId | String (50) | The merchant’s reference for the transaction provided in the Session Token Request (section 1.1) or that generated by the EVO Gateway |
| txId | Integer (18) | The unique identifier for the transaction in the EVO Gateway |
| acquirerTxId | String (100) | The transaction identifier in aquirer system, if returned |
| amount | BigDecimal (15.2 or 15.3) | The transaction amount, including tax, shipping, surcharge and discount amounts, provided in the Session Token Request (section 1.1) |
| currency | String (enum) | The transaction ISO alpha-3 currency code as defined in the ISO 4217 standard , provided in the Session Token Request (section 1.1) |
| customerId | String (20) | The customer identifier provided in the Session Token Request (section 1.1), or that generated by the EVO Gateway |
| action | String (enum) | Action executed as provided in the Session Token Request (section 1.1) (“AUTH”, “PURCHASE” or “VERIFY”) |
| pan | String (100) | The customer account value/number used in the transaction If a payment card was used this will be the <i>specinCreditCardToken</i> value provided in the Session Token Request (section 1.1) |
| brandId | Integer (18) | The <i>brandId</i> value received in Session Token Response, or the default value used by the EVO Gateway, if not provided |
| paymentSolutionId | Integer (18) | The <i>paymentSolutionId</i> value received in the Session Token Request (section 1.1) |
| freeText | String (200) | A free text field for use by the merchant that is returned in the Transaction Result Call (see EVO Gateway - 6 - TRANSACTION RESULT CALL), used if not supplied in the Session Token Request (section 1.1) |
| language | String (enum) | {not used for Direct API merchant} |
| acquirerAmount | BigDecimal (15.2 or 15.3) | Amount processed by payment acquirer. May be different than the <i>amount</i> in the Session Token Request (section 1.1) |
| acquirerCurrency | String (enum) | The ISO alpha-3 currency code, as defined in the ISO 4217 standard , of the currency processed by the payment acquirer, which may be different to the <i>currency</i> in the Session Token Request (section 1.1) |
| paymentSolutionDetails | JSON block | For payment cards only: The Transaction Authorisation Code received from the acquirer, format: <pre>{ "authCode": "", "expiryDate": "", "cardType": "", "maskedPan": "", "nameOnCard": "", "avsPostCode": "", "addrResultCode": "" }</pre> Note: the <i>maskedPan</i> value format is “999999*****9999” |
| rpld | Integer (18) | The identifier for the EVO Gateway Managed Recurring Payment Plan that was requested in the Session Token Request (section 6.4) through the ‘rp’ prefixed parameters If no Plan was requested this field will be empty If there was an error setting up the Plan the errors will be detailed in the <i>errors</i> field |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Parameter | Data Type | Description | | | | | | | | | | | | | | |
|---|---|---|---|-----------|------------------|---|---------------------|----------------------|-----------------|--------------------------|----------|------------------------|----------|--|-------|---|
| status | String (enum) | The status of the transaction in the EVO Gateway: | | | | | | | | | | | | | | |
| | | <table border="1" style="width: 100%;"> <thead> <tr> <th>Status</th> <th>Condition</th> </tr> </thead> <tbody> <tr> <td>WAITING_DEC_AUTH</td> <td> <p>If the card issuer has requested a Decoupled Authentication in the 3DS V2.x process. The payment process is suspended waiting for the cardholder/customer to complete the authentication. Once complete</p> <ul style="list-style-type: none"> If the authentication was successful, Payment Authorisation will be processed and the result returned in a Transaction Result Call or email alert If authentication failed, the result returned in a Transaction Result Call or email alert </td> </tr> <tr> <td>NOT_SET_FOR_CAPTURE</td> <td>If "AUTH" successful</td> </tr> <tr> <td>SET_FOR_CAPTURE</td> <td>If "PURCHASE" successful</td> </tr> <tr> <td>VERIFIED</td> <td>If "VERIFY" successful</td> </tr> <tr> <td>DECLINED</td> <td>If "AUTH" or "PURCHASE" was declined/refused</td> </tr> <tr> <td>ERROR</td> <td>If an error was returned by the payment process</td> </tr> </tbody> </table> | Status | Condition | WAITING_DEC_AUTH | <p>If the card issuer has requested a Decoupled Authentication in the 3DS V2.x process. The payment process is suspended waiting for the cardholder/customer to complete the authentication. Once complete</p> <ul style="list-style-type: none"> If the authentication was successful, Payment Authorisation will be processed and the result returned in a Transaction Result Call or email alert If authentication failed, the result returned in a Transaction Result Call or email alert | NOT_SET_FOR_CAPTURE | If "AUTH" successful | SET_FOR_CAPTURE | If "PURCHASE" successful | VERIFIED | If "VERIFY" successful | DECLINED | If "AUTH" or "PURCHASE" was declined/refused | ERROR | If an error was returned by the payment process |
| | | Status | Condition | | | | | | | | | | | | | |
| | | WAITING_DEC_AUTH | <p>If the card issuer has requested a Decoupled Authentication in the 3DS V2.x process. The payment process is suspended waiting for the cardholder/customer to complete the authentication. Once complete</p> <ul style="list-style-type: none"> If the authentication was successful, Payment Authorisation will be processed and the result returned in a Transaction Result Call or email alert If authentication failed, the result returned in a Transaction Result Call or email alert | | | | | | | | | | | | | |
| | | NOT_SET_FOR_CAPTURE | If "AUTH" successful | | | | | | | | | | | | | |
| | | SET_FOR_CAPTURE | If "PURCHASE" successful | | | | | | | | | | | | | |
| | | VERIFIED | If "VERIFY" successful | | | | | | | | | | | | | |
| DECLINED | If "AUTH" or "PURCHASE" was declined/refused | | | | | | | | | | | | | | | |
| ERROR | If an error was returned by the payment process | | | | | | | | | | | | | | | |
| errors | String (400) | Any errors that occurred during the successful processing of a transaction | | | | | | | | | | | | | | |
| customParameter1Or ... customParameter20Or | String (50) | The original 20x (50 character) free text fields provided by the merchant in the Session Token Request (section 1.1) | | | | | | | | | | | | | | |
| customParameter1 ... customParameter20 | String (50) | 20 x (50 character) free text fields provided by the merchant in the Session Token Request (section 1.1), with non-Basic Latin characters replaced by a space character. These values will have been sent for payment processing. | | | | | | | | | | | | | | |

2.4 Auth/Purchase/Verify Response – Not Processed

2.4.1 Format

JSON

2.4.1 Definition

| Parameter | Data Type | Description |
|---|--------------|---|
| result | String (40) | Will always be "failure" |
| errors | String Array | List of issues |
| resultId | String (40) | Hexadecimal string that is to be used in any support request calls |
| processingTime | Integer (6) | The time in seconds for the process to complete |
| additionalDetails | Array | Not used – will always be "{}" or not included |
| errors | String Array | List of errors |
| customParameter1Or ... customParameter20Or | String (50) | The original 20x (50 character) free text fields provided by the merchant in the Session Token Request (section 1.1) |
| customParameter1 ... customParameter20 | String (50) | 20 x (50 character) free text fields provided by the merchant in the Session Token Request (section 1.1), with non-Basic Latin characters replaced by a space character. These values will have been sent for payment processing. |

3 Payment Form Branding & Localisation

3.1 Styles & Branding

However, the Hosted Payment Form is loaded, it is possible to customise the Hosted Payment Form to match the design and branding of the merchant's webpage.

The merchant must provide the EVO Gateway with the CSS and image files. Sample files can be supplied on request.

The customised CSS file must be delivered to the EVO Gateway Support Team for review and sign off to ensure code integrity and security. The files will be loaded to the merchant's configuration in the EVO Gateway.

3.2 Localisation

Merchants will present different languages on their website. The Hosted Payment Page should reflect the language being viewed by the customer.

The language used in the Hosted Payment Form is determined by the value provided in the language parameter in the Session Token Request (section 1.1).

If the EVO Gateway does not support the requested language the default will be Spanish. However, to ensure the language is supported, the merchant should contact EVO Gateway Support Team to have the language added to the EVO Gateway suite.

Appendix A UAT Trigger Values

When integrating with the EVO Gateway in the User Acceptance Testing (UAT) environment, certain *amount* values in the Session Token Request (section 1.1) can be used to trigger response messages. This facility is provided to merchants so that testing can be confirmed against these expected errors.

Notes:

- In the 'Amount' column, the '*.' denotes that any whole number value can be used in place of the '*'. It is the decimal value that triggers the 'Response Message'
- Any decimal value **not** listed below will return a Status Message of 'APPROVED' with Status Code '00' and message 'Approved or completed successfully', where the transaction has been approved or completed successfully

| Trigger Value | Status Message | Status Code | Response Message | Comment |
|---------------|----------------|-------------|---|--|
| *.03 | DECLINED | 01 | Referral Processing: Refer to card issuer; the transaction has been declined | |
| *.04 | DECLINED | 02 | Referral Processing: Refer to card issuer, special condition; the transaction has been declined | |
| *.05 | DECLINED | 03 | Invalid merchant | |
| *.07 | KEEP THE CARD | 04 | Pick-up card; the merchant should retain the payment card | |
| *.08 | DECLINED | 05 | Do not honour | |
| *.09 | DECLINED | 06 | Error | |
| *.10 | KEEP THE CARD | 07 | Pick-up card, special condition | |
| *.01 | | 08 | Honour with identification | |
| | | 09 | Request in Progress | |
| - 2.00 | | 10 | | The amount to be captured must be 2.00 less than Authorised Amount |
| *.06 | | 11 | Approved, VIP | |
| *.11 | DECLINED | 12 | Invalid transaction | |
| *.12 | DECLINED | 13 | Invalid amount | |
| *.13 | DECLINED | 14 | Invalid card number | |
| *.14 | DECLINED | 15 | No such issuer | |
| | | 16 | | |
| | | 17 | | |
| | | 18 | | |
| *.15 | DECLINED | 19 | Re-enter transaction | |
| *.16 | ERROR | | Not sufficient funds | |
| *.17 | ERROR | | Unable to locate record | |
| *.18 | ERROR | | Format error | |
| *.19 | ERROR | | Bank not supported | |
| *.20 | ERROR | | Expired card, pick-up | |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Trigger Value | Status Message | Status Code | Response Message | Comment |
|---------------|----------------|-------------|---|---------|
| *.21 | ERROR | | Suspected fraud, pick-up | |
| *.22 | ERROR | | Contact acquirer, pick-up | |
| *.23 | ERROR | | Restricted card, pick-up | |
| *.24 | ERROR | | Call acquirer security, pick-up | |
| *.25 | ERROR | | PIN tries exceeded, pick-up | |
| *.26 | ERROR | | No savings account | |
| *.27 | ERROR | | No card record | |
| *.28 | ERROR | | Lost card, pick-up | |
| *.29 | ERROR | | Stolen card, pick-up | |
| *.30 | ERROR | | Contact acquirer | |
| *.31 | ERROR | | Exceeds withdrawal limit | |
| *.32 | ERROR | | Original amount incorrect | |
| *.33 | ERROR | | Expired card | |
| *.34 | SUCCESS | | {none} | |
| *.35 | ERROR | | Incorrect PIN | |
| *.36 | ERROR | | Transaction not permitted to cardholder | |
| *.37 | ERROR | | Transaction not permitted on terminal | |
| *.38 | ERROR | | Suspected fraud | |
| *.39 | ERROR | | Restricted card | |
| *.40 | ERROR | | Exceeds withdrawal frequency | |
| *.41 | ERROR | | Call acquirer security | |
| *.42 | ERROR | | PIN tries exceeded | |
| *.43 | ERROR | | Hard capture | |
| *.44 | ERROR | | Cut-off in progress | |
| *.45 | ERROR | | Issuer or switch inoperative | |
| *.46 | ERROR | | Duplicate transaction | |
| *.47 | ERROR | | System malfunction | |
| *.48 | ERROR | | Wrong PIN, allowable number of PIN tries exceeded | |
| *.49 | ERROR | | Time out | |
| *.50 | ERROR | | Cryptographic failure | |
| *.51 | ERROR | | Routing error | |
| *.52 | ERROR | | Exceeds cash limit | |
| *.53 | ERROR | | TVR check failure | |
| *.54 | ERROR | | TVR configuration error | |
| *.55 | ERROR | | Unacceptable PIN | |
| *.56 | ERROR | | Cashback service not available | |
| *.57 | ERROR | | Cash request exceeds issuer limit | |
| *.58 | SUCCESS | | {none} | |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Trigger Value | Status Message | Status Code | Response Message | Comment |
|---------------|----------------|-------------|---------------------|---------|
| *.59 | SUCCESS | | {none} | |
| *.60 | SUCCESS | | {none} | |
| *.61 | SUCCESS | | {none} | |
| *.62 | SUCCESS | | {none} | |
| *.63 | SUCCESS | | {none} | |
| *.64 | SUCCESS | | {none} | |
| *.65 | SUCCESS | | {none} | |
| *.66 | SUCCESS | | {none} | |
| *.67 | SUCCESS | | {none} | |
| *.68 | SUCCESS | | {none} | |
| *.69 | SUCCESS | | {none} | |
| *.70 | SUCCESS | | {none} | |
| *.71 | SUCCESS | | {none} | |
| *.72 | SUCCESS | | {none} | |
| *.73 | SUCCESS | | {none} | |
| *.74 | SUCCESS | | {none} | |
| *.75 | SUCCESS | | {none} | |
| *.76 | SUCCESS | | {none} | |
| *.77 | SUCCESS | | {none} | |
| *.78 | SUCCESS | | {none} | |
| *.79 | SUCCESS | | {none} | |
| *.80 | SUCCESS | | {none} | |
| *.81 | SUCCESS | | {none} | |
| *.82 | SUCCESS | | {none} | |
| *.83 | SUCCESS | | {none} | |
| *.84 | SUCCESS | | {none} | |
| *.85 | SUCCESS | | {none} | |
| *.86 | SUCCESS | | {none} | |
| *.87 | SUCCESS | | {none} | |
| *.88 | SUCCESS | | {none} | |
| *.89 | SUCCESS | | {none} | |
| *.90 | SUCCESS | | {none} | |
| *.91 | SUCCESS | | {none} | |
| *.92 | SUCCESS | | {none} | |
| *.93 | ERROR | | ERROR | |
| *.94 | ERROR | | ERROR | |
| *.95 | ERROR | | Communication Error | |
| *.96 | SUCCESS | | {none} | |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Trigger Value | Status Message | Status Code | Response Message | Comment |
|---------------|----------------|-------------|------------------|---------|
| *.97 | SUCCESS | | {none} | |
| *.98 | SUCCESS | | {none} | |
| *.99 | SUCCESS | | {none} | |

Appendix B Country States

The following table shows the codes for the US, Canadian and Mexican States used in the *customerDocumentState* parameter of the Session Token Request (section 1.1).

B.1 United States

| State | Abbr | State | Abbr | Territories | Abbr |
|----------------------|------|----------------|------|-------------------------|------|
| Alabama | AL | Montana | MT | American Samoa | AS |
| Alaska | AK | Nebraska | NE | Guam | GU |
| Arizona | AZ | Nevada | NV | Norther Mariana Islands | MP |
| Arkansas | AR | New Hampshire | NH | Puerto Rico | PR |
| California | CA | New Jersey | NJ | U.S. Virgin Islands | VI |
| Colorado | CO | New Mexico | NM | | |
| Connecticut | CT | New York | NY | | |
| Delaware | DE | North Carolina | NC | | |
| District of Columbia | DC | North Dakota | ND | | |
| Florida | FL | Ohio | OH | | |
| Georgia | GA | Oklahoma | OK | | |
| Hawaii | HI | Oregon | OR | | |
| Idaho | ID | Pennsylvania | PA | | |
| Illinois | IL | Rhode Island | RI | | |
| Indiana | IN | South Carolina | SC | | |
| Iowa | IA | South Dakota | SD | | |
| Kansas | KS | Tennessee | TN | | |
| Kentucky | KY | Texas | TX | | |
| Louisiana | LA | Utah | UT | | |
| Maine | ME | Vermont | VT | | |
| Maryland | MD | Virginia | VA | | |
| Massachusetts | MA | Washington | WA | | |
| Michigan | MI | West Virginia | WV | | |
| Minnesota | MN | Wisconsin | WI | | |
| Mississippi | MS | Wyoming | WY | | |
| Missouri | MO | | | | |

B.2 Canada

| State | Abbr |
|---------------------------|------|
| Alberta | AB |
| British Columbia | BC |
| Manitoba | MB |
| New Brunswick | NB |
| Newfoundland and Labrador | NL |
| Northwest Territories | NT |
| Nova Scotia | NS |
| Nunavut | NU |
| Ontario | ON |
| Prince Edward Island | PE |
| Quebec | QC |
| Saskatchewan | SK |
| Yukon | YT |

B.3 Mexico

| State | Abbr |
|---------------------|------|
| Aguascalientes | AG |
| Baja California | BJ |
| Baja California Sur | BS |
| Campeche | CP |
| Chiapas | CH |
| Chihuahua | CI |
| Coahuila | CU |
| Colima | CL |
| Distrito Federal | DF |
| Durango | DG |
| Guanajuato | GJ |
| Guerrero | GR |
| Hidalgo | HG |
| Jalisco | JA |
| Mexico | EM |
| Michoacán | MH |
| Morelos | MR |
| Nayarit | NA |
| Nuevo Leon | NL |
| Oaxaca | OA |
| Puebla | PU |
| Queretaro | QA |
| Quintana Roo | QR |
| San Luis Potosi | SL |
| Sinaloa | SI |
| Sonora | SO |
| Tabasco | TA |
| Tamaulipas | TM |
| Tlaxcala | TL |
| Veracruz | VZ |
| Yucatan | YC |
| Zacatecas | ZT |

Appendix C customerAccountInfo Data Elements Definitions

All parameters are optional, but should be supplied if the data is available to facilitate a Frictionless Flow

| Data Element | Data Type | Req | Description |
|-----------------------------|---------------|-----|--|
| custAccAgeInd | String (enum) | N | Cardholder Account Age Indicator: Length of time that the cardholder has had the account with the merchant. Values accepted: 01 = No account (guest check-out) 02 = Created during this transaction 03 = Less than 30 days 04 = 30–60 days 05 = More than 60 days |
| custAccChange | String (8) | N | Cardholder Account Change: Date that the cardholder's account with the merchant was last changed, including Billing or Shipping address, new payment account, or new user(s) added. Date format = YYYYMMDD |
| custAccChangeInd | String (enum) | N | Cardholder Account Change Indicator: Length of time since the cardholder's account information with the merchant was last changed, including Billing or Shipping address, new payment account, or new user(s) added. Values accepted: 01 = Changed during this transaction 02 = Less than 30 days 03 = 30–60 days 04 = More than 60 days |
| custAccPwChange | String (8) | N | Cardholder Account Password Change: Date that cardholder's account with the merchant had a password change or account reset Date format = YYYYMMDD |
| custAccPwChangeInd | String (enum) | N | Indicates the length of time since the cardholder's account with the Merchant had a password change or account reset. Values accepted: 01 = No change 02 = Changed during this transaction 03 = Less than 30 days 04 = 30–60 days 05 = More than 60 days |
| custPurchaseCount | Integer (4) | N | Cardholder Account Purchase Count: Number of purchases with this cardholder account during the previous six months. |
| custProvisionAttemptsPerDay | Integer (3) | N | Number of Provisioning Attempts Per Day: Number of Add Card attempts in the last 24 hours. |
| custTxnActivityDay | Integer (3) | N | Number of Transactions Per Day: Number of transactions (successful and abandoned) for this cardholder account with the merchant across all payment accounts in the previous 24 hours. |
| custTxnActivityYear | Integer (3) | N | Number of Transactions Per Year: Number of transactions (successful and abandoned) for this cardholder account with the merchant across all payment accounts in the previous year. |
| custPaymentAccAge | Integer (8) | N | Payment Account Age: Date that the payment account was enrolled in the cardholder's account with the merchant. Date format = YYYYMMDD |

AUTH/PURCHASE/VERIFY (Hosted Payment Page Integration)

| Data Element | Data Type | Req | Description |
|---------------------------|---------------|-----|---|
| custPaymentAcclnd | String (enum) | N | <p>Payment Account Age Indicator: Indicates the length of time that the payment account was enrolled in the cardholder's account with the merchant.</p> <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = No account (guest check-out) 02 = During this transaction 03 = Less than 30 days 04 = 30-60 days 05 = More than 60 days |
| custShipAddressUsage | String (8) | N | <p>Shipping Address Usage: Date when the shipping address used for this transaction was first used with the merchant.</p> <p>Date format = YYYYMMDD</p> |
| custShipAddressUsagelnd | String (enum) | N | <p>Shipping Address Usage Indicator: Indicates when the shipping address used for this transaction was first used with the merchant.</p> <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = This transaction 02 = Less than 30 days 03 = 30-60 days 04 = More than 60 days |
| custShipNameIndicator | String (enum) | N | <p>Shipping Name Indicator: Indicates if the Cardholder Name on the account is identical to the shipping Name used for this transaction.</p> <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = Account Name identical to shipping Name 02 = Account Name different than shipping Name |
| custSuspiciousAccActivity | String (enum) | N | <p>Suspicious Account Activity: Indicates whether the merchant has experienced suspicious activity (including previous fraud) on the cardholder account.</p> <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = No suspicious activity has been observed 02 = Suspicious activity has been observed |

Appendix D merchantAuthInfo Data Elements Definitions

All parameters are required if the merchantAuthInfo object is included, except merchantAuthData, which is undefined in 3DS V2.x (See Description).

| Data Element | Data Type | Req | Description |
|-----------------------|----------------|-----|---|
| merchantAuthData | String (20000) | N | <p>Merchant Authentication Data: Data that documents and supports a specific authentication process. For example, if <i>merchantAuthMethod</i> =</p> <ul style="list-style-type: none"> 03, this element can carry information about the provider of the federated ID and related information. 06, this element can carry the FIDO attestation data (including the signature). 07, this element can carry FIDO Attestation data with the FIDO assurance data signed. 08, this element can carry the SRC assurance data. <p>In the current version of the 3DS V2.x specification, this data element is not defined in detail, and therefore is optional. However, the intention is that for each merchant Authentication Method, this field should carry data that the ACS can use to verify the authentication process.</p> |
| merchantAuthMethod | String (enum) | Y | <p>Merchant Authentication Method: Mechanism used by the merchant to authenticate Cardholder.</p> <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = No merchant authentication occurred (i.e. cardholder “logged in” as guest) 02 = Login to the cardholder account in the merchant’s system using merchant’s own credentials 03 = Login to the cardholder account in the merchant’s system using federated ID 04 = Login to the cardholder account in the merchant’s system using issuer credentials 05 = Login to the cardholder account in the merchant’s system using third-party authentication 06 = Login to the cardholder account in the merchant’s system using FIDO Authenticator 07 = Login to the cardholder account in the merchant’s system using FIDO Authenticator (FIDO assurance data signed) 08 = SRC Assurance Data <p>Netcetera Constraint: Values ‘07’ and ‘08’ are only available when Netcetera initiates authentication with EMV 3DS 2.2.0 version or greater. In this instance, the <i>threeDSPreferredProtocolVersion</i> and <i>enforcethreeDSPreferredProtocolVersion</i> parameters should be set appropriately</p> |
| merchantAuthTimestamp | String (12) | Y | <p>Merchant Authentication Timestamp: Date and time in UTC of the cardholder authentication.</p> <p>Date format = YYYYMMDDHHMM</p> |

Appendix E merchantPriorAuthInfo Data Elements Definitions

All parameters are required if the merchantPriorAuthInfo object is included, except merchantPriorAuthData, which is undefined in 3DS V2.x (See Description)

| Data Element | Data Type | Req | Description |
|----------------------------|---------------|-----|---|
| merchantPriorAuthData | String (2048) | N | Merchant Prior Transaction Authentication Data: Data that documents and supports a specific authentication process. In the current version of the specification this data element is not defined in detail, however the intention is that for each Merchant Authentication Method, this field carry data that the ACS can use to verify the authentication process. In future versions of the specification, these details are expected to be included. |
| merchantPriorAuthMethod | String (enum) | N | Merchant Prior Transaction Authentication Method: Mechanism used by the merchant to previously authenticate the Cardholder Values accepted: 01 = Frictionless authentication occurred 02 = Cardholder challenge occurred 03 = AVS verified 04 = Other Issuer methods |
| merchantPriorAuthTimestamp | String (12) | N | Merchant Prior Transaction Authentication Timestamp: Date and time in UTC of the prior cardholder authentication. Date format = YYYYMMDDHHMM |
| merchantPriorRef | String (36) | N | Merchant Prior Transaction Reference: This data element provides additional information to the Issuer to determine the best approach for handling a request. This data element contains the original <i>merchantTxId</i> for a prior authenticated transaction (for example, the first recurring transaction that was authenticated with the cardholder). |

Appendix F merchantRiskIndicator Data Elements Definitions

All parameters are optional, but should be supplied if the data is available to facilitate a Frictionless Flow

| Data Element | Data Type | Req | Description |
|---------------------|---------------------------|-----|--|
| deliveryTimeframe | String (enum) | N | <p>Delivery Timeframe: Indicates the merchandise delivery timeframe.</p> <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = Electronic Delivery 02 = Same day shipping 03 = Overnight shipping 04 = Two-day or more shipping |
| giftCardAmount | BigDecimal (15.2 or 15.3) | N | Gift Card Amount: For prepaid or gift card purchase, the purchase amount total of prepaid or gift card(s) |
| giftCardCount | Integer (2) | N | Gift Card Count: For prepaid or gift card purchase, total count of individual prepaid or gift cards/codes purchased. |
| giftCardCurr | String (3) | N | Gift Card Currency: For prepaid or gift card purchase, the ISO alpha-3 code for the currency as defined in the ISO 4217 standard |
| preOrderDate | String (8) | N | <p>Pre-Order Date: For a pre-ordered purchase, the expected date that the merchandise will be available.</p> <p>Date format = YYYYMMDD</p> |
| preOrderPurchaseInd | String (enum) | N | <p>Pre-Order Purchase Indicator: Indicates if the Cardholder is placing an order for merchandise with a future availability or release date.</p> <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = Merchandise available 02 = Future availability |
| reorderItemsInd | String (enum) | N | <p>Reorder Items Indicator: Indicates whether the cardholder is reordering previously purchased merchandise.</p> <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = First time ordered 02 = Reordered |
| shipIndicator | String (enum) | N | <p>Shipping Indicator: Indicates shipping method chosen for the transaction. Merchants must choose the Shipping Indicator code that most accurately describes the cardholder's specific transaction, not their general business.</p> <p>If one or more items are included in the sale, use the Shipping Indicator code for the physical goods, or if all digital goods, use the Shipping Indicator code that describes the most expensive item.</p> <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = Ship to cardholder's billing address 02 = Ship to another verified address on file with merchant 03 = Ship to address that is different than the cardholder's billing address 04 = "Ship to Store" / Pick-up at local store (Store address shall be populated in shipping address fields) 05 = Digital goods (includes online services, electronic gift cards and redemption codes) 06 = Travel and Event tickets, not shipped 07 = Other (for example, Gaming, digital services not shipped, e-media subscriptions, etc.) |

