

Required vs. optional parameters for 3DS2

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Overview

PAYONE build an EMV 3DS Service that does not require merchants to implement any changes to their existing integrations while ensuring full compliance to minimum data requirements for authentication requests as stipulated by the card schemes.

Parameters are already existing our Server-API. Some optional parameters will become mandatory as of January 1, 2021.

All of the mandatory data elements are already available in the PAYONE Server API (★) or they will be handled through the 3DS Service Application (★). A few parameters that are optional will become required for creditcard transactions to meet EMVCo's requirements (★). Only optional data elements marked with (★) have been newly introduced and may require development if deemed necessary.

(Parameters extracted by the 3DS Service do not have to be delivered additionally via Server-API.)

Transactional and Checkout Page Information

Data Element	PAYONE Server API Name	PAYONE 3DS Service	EMVCo - Required	EMVCo - Optional	PAYONE Server API Required	PAYONE Server API Optional
3DS Method Completion Indicator	-	★				
3DS Requestor Authentication Indicator	-	★				
3DS Challenge Indicator	-	★				
3DS Requestor ID	-	★				
3DS Requestor Name	-	★				
3DS Requestor URL	-	★				
3DS Server Operator ID	-	★				
3DS Server Reference Number	-	★				
3DS Server Transaction ID	-	★				
3DS Server URL	-	★				
3RI Indicator	-	★				
Account Type	-	★				
Acquirer BIN	<i>will be set by PAYONE based on merchant's VU Nummer</i>	★				
Acquirer Merchant ID	<i>will be set by PAYONE deducted from merchant's VU Nummer</i>	★				
Address Match Indicator	<i>will be set by PAYONE as Y, if shipping address equals billing address ; as N otherwise</i>	★				
Broadcast Information	-	★				
Browser Accept Headers	browserinfo_accept_headers	★				★
Browser IP Address	ip	★				★
Browser Java Enabled	browserinfo_java_enabled	★				★
Browser Language	browserinfo_language	★				★

Browser Screen Color Depth	browserinfo_color_depth	★				★
Browser Screen Height	browserinfo_screen_height	★				★
Browser Screen Width	browserinfo_screen_width	★				★
Browser Time Zone	browserinfo_time_zone_offset	★				★
Browser User-Agent	browserinfo_user_agent	★				★
Card/Token Expiry Date	cardexpiredate				★	
Cardholder Account Identifier	accountinfo_account_identifier					★
Cardholder Account Number	cardpan (or pseudocardpan)					★
Cardholder Billing Address City	city				★	
Cardholder Billing Address Country	country				★	
Cardholder Billing Address Line 1	street oder streetname+streetnumber				★	
Cardholder Billing Address Line 2	addressaddition				★	
Cardholder Billing Address Line 3	addressaddition				★	
Cardholder Billing Address Postal Code	zip				★	
Cardholder Billing Address State	state				★	
Cardholder Email Address	email				★	
Cardholder Home Phone Number	telephonenumber			*		★
Cardholder Mobile Phone Number	telephonenumber			*		★
Cardholder Work Phone Number	telephonenumber			*		★
Cardholder Name	cardholder <i>If the card holder is not specified the PAYONE platform will use firstname / lastname for card holder or company - if required.</i>				(★)	
Cardholder Shipping Address City	shipping_city			*		★
Cardholder Address Country	shipping_country			*		★
Cardholder Shipping Address Line 1	shipping_street oder streetname+streetnumber			*		★
Cardholder Shipping Address Line 2	shipping_addressaddition			*		★
Cardholder Shipping Address Line 3	shipping_addressaddition			*		★
Cardholder Shipping Address Postal Code	shipping_zip			*		★
Cardholder Shipping Address State	shipping_state			*		★
Cardholder Work Phone Number	telephonenumber			*		★

Device Channel	-	★				
EMV Payment Token Indicator	-	★				
Instalment Payment Data	<i>not yet implemented</i>					
Merchant Category Code	<i>will be set by PAYONE based on initial setup</i>	★				
Merchant Country Code	<i>will be set by PAYONE based on initial setup</i>	★				
Merchant Name	<i>will be set by PAYONE based on initial setup</i>	★				
Message Category	-	★				
Message Extension	-	★				
Message Type	-	★				
Message Version Number	-	★				
Notification URL	-	★				
Purchase Amount	amount				★	
Purchase Currency	currency				★	
Purchase Currency Exponent	<i>will currently be set by PAYONE based on currency</i>	★				
Purchase Date & Time	<i>will be set by PAYONE as timestamp of request in UTC</i>					
Transaction Type	-					

*** A word on shipping address and phone numbers:**

The EMVCo Spec declares these parameters as “Required unless market or regional mandate restricts sending this information” or “Required (if available) unless market or regional mandate restricts sending this information”. Since no country in the European Economic Area (EEA) explicitly restricts sending these parameters, they’re technically required. However, the Schemes have clarified “ACSs must not decline EMV 3DS messages when one or more of these conditional fields are absent.”

This means that shipping address and phone numbers are, in fact, required by the EMVCo Spec. The PAYONE Platform won’t however decline the processing of credit card requests without these parameters. Please note that these parameters have a high influence on the internal risk assessment of the issuers.

3DS Requestor Authentication Information

Data Element	PAYONE Server API Name	PAYONE 3DS Service	EMVCo - Required	EMVCo - Optional	PAYONE Server API Required	PAYONE Server API Optional
3DS Requestor Authentication Method	accountinfo_authentication_method	★				★
3DS Requestor Authentication Timestamp	accountinfo_authentication_timestamp	★				★

3DS Requestor Authentication Information

Data Element	PAYONE Server API Name	PAYONE 3DS Service	EMVCo - Required	EMVCo - Optional	PAYONE Server API Required	PAYONE Server API Optional
3DS Requestor Prior Transaction Reference	priorauthenticationinfo_reference					★
3DS Requestor Prior Transaction Authentication Method	priorauthenticationinfo_method					★
3DS Requestor Prior Transaction Authentication Timestamp	priorauthenticationinfo_timestamp					★
3DS Requestor Prior Transaction Authentication Data	priorauthenticationinfo_data					★

Merchant Risk Indicator

Data Element	PAYONE Server API Name	PAYONE 3DS Service	EMVCo - Required	EMVCo - Optional	PAYONE Server API Required	PAYONE Server API Optional
Shipping Indicator	merchantriskindicator_shipping_address_indicator					★
Delivery Timeframe	merchantriskindicator_delivery_time_frame					★
Delivery Email Address	merchantriskindicator_delivery_email					★
Reorder Items Indicator	merchantriskindicator_reorder_items_indicator					★
Pre-Order Purchase Indicator	merchantriskindicator_pre_order_purchase_indicator					★
Pre-Order Date	merchantriskindicator_pre_order_date					★
Gift Card Amount	merchantriskindicator_gift_card_amount					★
Gift Card Currency	merchantriskindicator_gift_card_currency					★
Gift Card Count	merchantriskindicator_gift_card_count					★

Cardholder Account Information

Data Element	PAYONE Server API Name	PAYONE 3DS Service	EMVCo - Required	EMVCo - Optional	PAYONE Server API Required	PAYONE Server API Optional
Cardholder Account Age Indicator	accountinfo_account_age_indicator					★
Cardholder Account Date	accountinfo_account_change_date					★
Cardholder Account Change Indicator	accountinfo_account_change_indicator					★
Cardholder Account Change	accountinfo_account_change_date					★
Cardholder Account Password Change Indicator	accountinfo_password_change_date_indicator					★
Cardholder Account Password Change	accountinfo_password_change_date					★
Shipping Address Usage Indicator	accountinfo_shipping_address_usage_indicator					★
Number of Transactions Day	accountinfo_number_transactions_day					★
Number of Transactions Year	accountinfo_number_transactions_year					★
Number of Provisioning Attempts Day	accountinfo_add_card_attempts_day					★
Cardholder Account Purchase Count	accountinfo_number_of_purchases					★
Suspicious Account Activity	accountinfo_suspicious_account_activity					★
Shipping Name Indicator	<i>not implemented yet</i>					★
Payment Account Age Indicator	accountinfo_payment_account_age_indicator					★
Payment Account Age	accountinfo_payment_account_age					★
Cardholder Account Identifier	accountinfo_account_identifier					★
Authentication Method	accountinfo_authentication_method					★

Authentication Timestamp	accountinfo_authentication_timestamp					★
Cardholder Account Date	accountinfo_account_creation_date					★
Shipping Address Usage	accountinfo_shipping_address_usage_date					★

Reference

For a complete documentation of 3DS related additional parameters, please refer to the separate pages:

threeDSPolicy	customerInfo	browserInfo
priorAuthenticationInfo	credentialsOnFile	accountInfo
merchantRiskIndicator	card	