



EMV® Specification Bulletin No. 205 v1
August 2018

**EMV 3-D Secure SDK and Device Information Updates,
Clarifications & Errata**

This Draft Specification Bulletin No. 205 provides updates, clarifications and errata incorporated into the EMV 3-D Secure—SDK Specification and EMV 3-D Secure—Device Information documents since the October 2017 v2.1.0 publication.

Applicability

This Specification Bulletin applies to:

- EMV 3-D Secure—SDK Specification, Version 2.1.0
- EMV 3-D Secure—Device Information

Updates are provided by document, in the order in which they appear in the specification. Deleted text is identified using ~~strikethrough~~, and red font is used to identify changed text. Unedited text is provided only for context.

Effective Date

August 2018

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EMV 3-D Secure SDK—Device Information v2.1.0

Chapter 2 Device Identification Parameters

2.2 Minimum Supported Platform Versions

Table 2.2: Common Parameters Available in Android, iOS and Windows 10 Mobile Platforms

Identifier	Parameter	Description	Permissions
C007		For example, in Windows 10 Mobile, AdvertisingManager.AdvertisingId retrieves a unique ID used to provide more relevant advertising.	

2.7 Windows 10 Mobile Specific Device Parameters

Table 2.5: Windows 10 Mobile-Specific Device Parameters

Group or Identifier	Attribute	Description
W025	PublisherHostId	A string that uniquely identifies a device. This string is unique per device and per publisher, which means that no two publishers will receive the same value for the same device.

2.9 Device Information JSON Data

Table 2.7: Device Parameters JSON Structure

Updated all instances of:

en_US to en-US

EMV 3-D Secure SDK Specification v2.1.0

Chapter 1 Introduction

1.3 Normative References

Updated URL links:

- RFC 7159 *The JavaScript Object Notation (JSON) Data Interchange Format*
<https://tools.ietf.org/html/rfc7159>
- RFC 7518 *JSON Web Algorithms (JWA)*
<https://tools.ietf.org/html/rfc7518>

Chapter 3 Getting Started with the EMV 3-D Secure Mobile SDK

3.3.2 Challenge Flow

24 [Req 10]

Call one of the methods (`completed`, `cancelled`, `protocolError` or `runtimeError`) of the `ChallengeStatusReceiver` callback object to return the result of the challenge process to the 3DS Requestor App. After the method is run, the 3DS SDK gets back control and cleans up resources that are held by the `Transaction` object (implementation specific).

Chapter 4 Code Elements of the EMV 3-D Secure Mobile SDK

4.1 initialize

Table 4.2 initialize Parameters

locale Description: en-US to en-US

4.5 Class UiCustomization

public enum ButtonType {VERIFYSUBMIT, CONTINUE, NEXT, CANCEL, RESEND}

4.2 Class Config Parameters

- Group names and parameter names are case-insensitive.

Table 4.9: ConfigParameters Class Methods

Method	Description
removeParam	Removes a configuration parameter either from the specified group or from the default group. It should return the name value of the parameter that it removes.

4.2.1 addParam

The `addParam` method shall add a configuration parameter either to the specified group or to the default group, if the group is not specified.

Table 4.10: addParamParameters

Parameters	Mandatory?	Description
paramValue	NoYes	Note: The value cannot be null.

Table 4.11: addParam Exceptions

Method	Description
InvalidInputException	This exception shall be thrown if <code>paramName</code> is null or if the parameter in the group is duplicate.

4.2.2 getParamValues

The `getParamValue` method shall return a configuration parameter's value either from the specified group or from the default group, if the group is not specified.

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Table 4.12: getParamValue Parameters

Parameters	Mandatory?	Description
group	No	Note: If the group is null, then the default group shall be used.

getParamValue Return Value

The `getParamValue` method returns the value of the specified configuration parameter as a string. If the parameter is not found in the specified group, then this method returns null.

Note: If the group is null, then the default group shall be used for lookup.

4.2.3 removeParam

The `removeParam` method shall remove a configuration parameter either from the specified group or from the default group, if the group is not specified. It should return the `namevalue` of the parameter that it removes.

Table 4.14: removeParam Parameters

Parameters	Mandatory?	Description
group	No	Note: If the group is null, then the default group shall be used.

removeParam Return Value

The `removeParam` method returns the `namevalue` of the parameter that it removes. If the parameter is not found in the specified group, then this method returns null.

Note: If the group is null, then the default group shall be used for lookup.

4.5 Class UiCustomization**[Req 69]**

The `UiCustomization` object and the objects held by it, such as `ButtonCustomization`, `ToolbarCustomization`, `LabelCustomization`, and `TextBoxCustomization`, shall be immutable. In other words, after the customization data is set, the 3DS SDK shall not allow the data to be modified. To enforce this, SDK implementers can choose any mechanism such as delinking references from the 3DS Requestor App by creating copies of the customization objects and so on.

4.5.2 setButtonCustomization

This method is a variation of the `setButtonCustomization` method.

Note: This method shall be used when the SDK implementer wants to use a button type that is not included in the predefined Enum `ButtonType`. If the button type that is specified already exists in the Enum `ButtonType` (case-insensitive match), then the button type available in the Enum is used.

Table 4.28: setButtonCustomization Parameters

Parameters	Mandatory?	Description
buttontype	Yes	Implementer-specific button type. The value of the <code>buttonType</code> is case-insensitive.

4.5.6 getButtonCustomization

getButtonCustomization Return Value

This method returns a ButtonCustomization object. If the ButtonCustomization object was not set, then this method returns null.

4.5.7 getButtonCustomization

getButtonCustomization Return Value

This method returns a ButtonCustomization object. If the ButtonCustomization object was not set, then this method returns null.

4.5.8 getToolbarCustomization

getToolbarCustomization Return Value

This method returns a ToolbarCustomization object. If the ToolbarCustomization object was not set, then this method returns null.

4.5.9 getLabelCustomization

getLabelCustomization Return Value

This method returns a LabelCustomization object. If the LabelCustomization object was not set, then this method returns null.

4.5.10 getTextBoxCustomization

getTextBoxCustomization Return Value

This method returns a TextBoxCustomization object. If the TextBoxCustomization object was not set, then this method returns null.

4.10.4 getBorderColor

```
Public intString getBorderColor()
```

4.23 Enum Button Type

The usage of these button types is shown in section 4.2.2 Native UI Templates in the EMV 3DS Protocol Specification.

```
public enum ButtonType {VERIFY, SUBMIT, CONTINUE, NEXT, CANCEL, RESEND}
```

Table 4.1: ButtonType Enum

Button Type	Description
VERIFY	Verify button
SUBMIT	Submit button

Chapter 7 User Interface

7.2.1 Input and Output Formats for Native UI

Single Text Input

Challenge Data Entry field: 432525

```
"challengeDataEntry": "432525"
```

Single Select

Challenge Selection Information field (JSON):

```
{"Challenge-Selection-Information": [  
    {"mobilephone": "Mobile **** * 3291"},  
    {"email": "Email sa*****kg**@g***.com"}  
]
```

Challenge Data Entry field: mobile

```
"challengeDataEntry": "phone"
```

Multi Select (Checkbox)

Challenge Selection Information field (JSON):

```
{"Challenge Selection-Information": [  
    {"chicago_illinois": "Chicago, Illinois"},  
    {"st_louis_missouri": "St Louis, Missouri"},  
    {"portland_oregon": "Portland, Oregon"}  
]
```

Challenge Data Entry field (comma-separated):

```
"challengeDataEntry": "chicago_illinois, portland_oregon"  
chicago_illinois, portland_oregon
```

Note: For Text, Single Select, and Multi Select challenge types, the Challenge Data Entry field is not included in the CReq message when challenge data has not been entered.

Chapter 8 SDK Security

[Req 68]

The SDK shall maintain a lookup of the protocol versions that it supports and use this lookup to identify the latest **protocol** version.

Annex D

D.1 Code Sample for iOS, D.2 Code Sample for Android, D.3 Code Sample for Windows Phone

Within code samples, updated all instances of:

en-US to en-US

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