



EMV[®]

3-D Secure

Bridging Message Extension

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Contents

Legal Notice	2
Contents	3
Tables	3
Introduction	4
Bridging Message Extension Support and Implementation	5
Challenge Flow with OOB Authentication Requirements	6
Challenge Cancellation Indicator Requirements	6
Bridging Message Extension Data Elements	7
Data	9
Recurring Data	11
Challenge Data	14
Additional Data	17
File URL Data	25
Message Format	26
Bridging Message Extension Samples	28
Sample AReq Bridging Message Extension	28
Sample ARes Bridging Message Extension	29
Sample RReq Bridging Message Extension	29
Sample CReq Bridging Message Extension	30
Sample CRes Bridging Message Extension	30
Sample PReq Bridging Message Extension	31
Sample PRes Bridging Message Extension	31

Tables

Table 1: Bridging Message Extension Data Objects Supported or Processed Per 3DS Component	5
Table 2: Bridging Message Extension Data Elements	7
Table 3: Data	9
Table 4: Recurring Data	11
Table 5: Challenge Data	14
Table 6: Additional Data	17
Table 7: File URL Data	25
Table 8: Message Extension Data Elements	26

Introduction

This document describes how existing EMV® 3-D Secure (3DS) v2.1 and v2.2 components can provide or consume additional data related to the *EMV® 3-D Secure Protocol and Core Functions Specification v2.3.1.0*, and is designed to evolve to include additional v2.3 features. The *EMV® 3-D Secure Protocol and Core Functions Specification v2.1.0*, v2.2.0 and v2.3.1.0 is hereinafter referred to as the *Core Specification v2.1*, v2.2 and v2.3, respectively.

This version of the Bridging Message Extension carries the Recurring Transaction data, Additional data and File URL data that are not present or contain new values in the AReq/ARes or RReq messages for v2.1 and 2.2. The Challenge Data is only provided in CReq/CRes messages when the Message Version Number is 2.2.0 (not 2.1.0).

The *EMV® 3-D Secure Bridging Message Extension* should be used in conjunction with the Core Specification v2.3 and the *EMV® 3-D Secure Specifications Frequently Asked Questions*, available on the EMVCo website.

Bridging Message Extension Support and Implementation

The 3DS v2.3 data elements present in the message extension may duplicate existing data elements from the 3DS v2.1 and v2.2 messages, but contain new or different values. According to the *Core Specification v2.3*, the data element values are set in the message extension, while, according to the *Core Specification v2.1* and *v2.2*, they are set in the core part of the 3DS messages. In such cases, the data element value in the message extension overrides the data element value in the core part of the 3DS message. In addition, the 3DS Server builds the v2.1 or v2.2 AReq message assuming that the ACS does not support the Bridging Message Extension. Then it provides the additional information in the Bridging Message Extension.

If the Bridging Message Extension is supported, then the 3DS component shall fully support at least one of the data objects (Recurring data, Challenge data, Additional data or File URL data) of the message extension and implement the related requirements of the *Core Specification v2.3*, as shown below in Table 1.

Table 1: Bridging Message Extension Data Objects Supported or Processed Per 3DS Component

DATA	3DS SDK	3DS Server	DS	ACS
Recurring data		x	x	x
Challenge data	x			x
Additional data		x	x	x
File URL data		x	x	

Some data objects have Optional or Conditional presence in the Bridging Message Extension messages. The data elements inside these objects may also have presence conditions (Required/Optional/Conditional).

The presence condition of the data elements in an object applies only when the object is present in the message.

Challenge Flow with OOB Authentication Requirements

These requirements refer to Section 3.2 of the *Core Specification v2.3*.

The message extension support of OOB challenge-related data is limited to ACS UI Type = 04 (OOB). ACS UI Type = 06 (HTML OOB) is NOT supported in the 3DS Bridging Message Extension.

For the ACS and 3DS SDK that support the OOB App URL:

- the ACS shall implement Req 401, limited to ACS UI Type = 04
- the 3DS SDK shall implement Req 399, Req 400, Req 403, Req 404, Req 406, Req 407, Req 408 and Req 409 limited to ACS UI Type = 04, and the Challenge Data Entry Masking (Figure 44 and 45, Table A.26).

Challenge Cancellation Indicator Requirements

The ACS shall implement Req 45 and the updates to Section 5.9.5 (ACS CReq Message Error Handling—01-APP) of the *Core Specification*.

Bridging Message Extension Data Elements

Table 2: Bridging Message Extension Data Elements

Data Element/Field Name	Description	Source	Length/Format/Values	Message Inclusion
Assigned Extension Group Identifier Field Name: <code>id</code>	A unique identifier for the extension.	3DS Server ACS 3DS SDK	Length: 14 characters JSON Data Type: String Value accepted: <ul style="list-style-type: none">A000000802-004	AReq = R ARes = R RReq = R CReq = R CRes = R PReq = R PRes = R
Criticality Indicator Field Name: <code>criticalityIndicator</code>	A Boolean value indicating whether the recipient must understand the contents of the extension to interpret the entire message.	3DS Server ACS 3DS SDK	JSON Data Type: Boolean Value accepted: <ul style="list-style-type: none">false	AReq = R ARes = R RReq = R CReq = R CRes = R PReq = R PRes = R

Data Element/Field Name	Description	Source	Length/Format/Values	Message Inclusion
Data Field Name: data	The data carried in the extension.	3DS Server ACS 3DS SDK	Length: Variable, maximum 8059 characters JSON Data Type: Object Values accepted: <ul style="list-style-type: none"> Refer to Table 3 for data elements 	AReq = R ARes = R RReq = R CReq = R CRes = R PReq = R PRes = R
Extension Name Field Name: name	The name of the extension data set as defined by the extension owner.	3DS Server ACS 3DS SDK	Length: 15 characters JSON Data Type: String Value accepted: <ul style="list-style-type: none"> Bridging 	AReq = R ARes = R RReq = R CReq = R CRes = R PReq = R PRes = R

Data

Table 3: Data

Data Element/Field Name	Description	Source	Length/Format/Values	Message Inclusion
Additional Data Field Name: <code>addData</code>	Specific data from the <i>Core Specification v2.3</i> .	3DS Server ACS	Length: Variable JSON Data Type: Object Values accepted: <ul style="list-style-type: none"> Refer to Table 6 for data elements 	AReq = O ARes = O RReq = O
Challenge Data Field Name: <code>challengeData</code>	The data specific to the Challenge. Present if Message Version Number = 2.2.0; absent if Message Version Number = 2.1.0.	ACS 3DS SDK	Length: Variable JSON Data Type: Object Values accepted: <ul style="list-style-type: none"> Refer to Table 5 for data elements 	CReq = O CRes = O AND Message Version Number = 2.2.0
Extension Version Number Field Name: <code>version</code>	Version number of the message extension.	3DS Server ACS 3DS SDK	Length: 3 characters JSON Data Type: String Value accepted: <ul style="list-style-type: none"> 1.0 	AReq = R ARes = R RReq = R CReq = R CRes = R PReq = R PRes = R

Data Element/Field Name	Description	Source	Length/Format/Values	Message Inclusion
File URL Data Field Name: <code>fileURLData</code>	Card range data provided in a file.	3DS Server DS	Length: Variable JSON Data Type: Object Values accepted: <ul style="list-style-type: none">Refer to Table 7 for data elements	PReq = O PRes = O
Recurring Data Field Name: <code>recurringData</code>	The data specific to a recurring transaction.	3DS Server	Length: Variable JSON Data Type: Object Values accepted: <ul style="list-style-type: none">Refer to Table 4 for data elements	AReq = O

Recurring Data

Table 4: Recurring Data

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
Recurring Amount Field Name: <code>recurringAmount</code>	Recurring amount in minor units of currency with all punctuation removed.	3DS Server	Length: Variable, maximum 48 characters JSON Data Type: String Example: Purchase amount is USD 123.45 Example values accepted: <ul style="list-style-type: none"> • 12345 • 012345 • 0012345 	AReq = C Required if: <ul style="list-style-type: none"> • [3DS Requestor Authentication Indicator = 02 or 03; OR 3RI Indicator = 01 or 02] AND • Recurring Indicator/ Amount Indicator = 01
Recurring Currency Field Name: <code>recurringCurrency</code>	Currency in which the Recurring Amount is expressed.	3DS Server	Length: 3 characters; numeric JSON Data Type: String Values accepted: <ul style="list-style-type: none"> • ISO 4217 three-digit currency codes, other than those listed in Table A.5 in the <i>Core Specification</i>. 	AReq = C Required if the Recurring Amount is present

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
Recurring Currency Exponent Field Name: <code>recurringExponent</code>	Minor units of currency as specified in the ISO 4217 currency exponent. Examples: <ul style="list-style-type: none"> • USD = 2 • JPY = 0 	3DS Server	Length: 1 character; numeric JSON Data Type: String	AReq = C Required if the Recurring Amount is present.
Recurring Date Field Name: <code>recurringDate</code>	Effective date of the new authorised amount following the first/promotional payment in a recurring or instalment transaction.	3DS Server	Length: 8 characters JSON Data Type: String Date format accepted: <ul style="list-style-type: none"> • YYYYMMDD 	AReq = C Required if Recurring Indicator/ Frequency Indicator = 01
Recurring Frequency Field Name: <code>recurringFrequency</code>	Indicates the minimum number of days between authorisations for a recurring or instalment transaction.	3DS Server	Length: Variable, maximum 4 characters JSON Data Type: String Values accepted: <ul style="list-style-type: none"> • Numeric values between 1 and 9999 Example values accepted: <ul style="list-style-type: none"> • 31 • 031 • 0031 	AReq = C Required if Recurring Indicator/ Frequency Indicator = 01

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
Recurring Indicator Field Name: <code>recurringInd</code>	<p>Indicates whether the recurring or instalment payment has a fixed or variable amount and frequency.</p> <p>The Recurring Indicator object contains:</p> <ul style="list-style-type: none"> the Amount Indicator the Frequency Indicator <p>Example:</p> <pre>{ "recurringInd": { "amountInd": "01", "frequencyInd": "02" }}</pre>	3DS Server	<p>JSON Data Type: Object</p> <p>Amount Indicator</p> <p>Field Name: <code>amountInd</code></p> <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = Fixed Purchase Amount 02 = Variable Purchase Amount 03–79 = Reserved for EMVCo future use (values invalid until defined by EMVCo) 80–99 = Reserved for DS use <p>Frequency Indicator</p> <p>Field Name: <code>frequencyInd</code></p> <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = Fixed Frequency 02 = Variable or Unknown Frequency 03–79 = Reserved for EMVCo future use (values invalid until defined by EMVCo) 80–99 = Reserved for DS use 	<p>AReq = C</p> <p>Required if:</p> <ul style="list-style-type: none"> 3DS Requestor Authentication Indicator = 02 or 03; OR 3RI Indicator = 01 or 02

Challenge Data

Table 5: Challenge Data

Note: Challenge Data is only provided if the Message Version Number of the CReq/CRes message is 2.2.0.

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
Challenge Data Entry Masking Field Name: <code>challengeDataEntryMasking</code>	Indicates that the 3DS SDK shall mask the data entered by the Cardholder.	ACS	Length: 1 character JSON Data Type: String Values accepted: <ul style="list-style-type: none">Y = Mask the data entered by the CardholderN = Do not mask the data entered by the Cardholder.	CRes = C Required if ACS UI Type = 01
OOB App Label Field Name: <code>oobAppLabel</code>	Label to be displayed for the link to the OOB App URL. Example: <code>"oobAppLabel": "Open Your Bank App"</code>	ACS	Length: Variable, maximum 45 characters JSON Data Type: String	CRes = C Required if: <ul style="list-style-type: none">the OOB App URL is available and ACS UI Type = 04; ANDOOB App URL Indicator = 01 in the CReq message

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
<p>OOB App Status</p> <p>Field Name: <code>oobAppStatus</code></p>	<p>Status code indicating the problem type encountered when using the OOB App URL.</p>	3DS SDK	<p>Length: Variable, maximum 2 characters</p> <p>JSON Data Type: String</p> <p>Values accepted:</p> <ul style="list-style-type: none"> 01 = Open OOB App URL failed 02–99 = Reserved for future EMVCo use (values invalid until defined by EMVCo) 	<p>CReq = C</p> <p>Required if the Cardholder encountered an error when selecting the OOB App URL for ACS UI Type = 04</p>
<p>OOB App URL</p> <p>Field Name: <code>oobAppURL</code></p>	<p>Universal App Link to an authentication app used in the OOB authentication. The OOB App URL will open the appropriate location within the OOB Authentication App.</p> <p>Refer to Table 1.3 in the <i>Core Specification v2.3</i> for the Universal App Link definition.</p>	ACS	<p>Length: Variable, maximum 2048 characters</p> <p>JSON Data Type: String</p> <p>Value accepted:</p> <ul style="list-style-type: none"> Universal App Link 	<p>CRes = C</p> <p>Required for ACS UI Type = 04 if:</p> <ul style="list-style-type: none"> OOB App URL Indicator = 01 in the CReq message; AND the ACS utilises the OOB Authentication App automatic switching feature

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
OOB App URL Indicator Field Name: oobAppURLInd	Indicates if the 3DS SDK supports the OOB App URL.	3DS SDK	Length: Variable, maximum 48 characters JSON Data Type: String Values accepted: <ul style="list-style-type: none"> 01 = Supported 02 = Not supported by the device 03 = Not supported by the 3DS Requestor 04–79 = Reserved for EMVCo future use (values invalid until defined by EMVCo) 80–99 = Reserved for DS use 	CReq = R
OOB Continuation Indicator Field Name: oobContinue	Indicator notifying the ACS that the Cardholder has selected the OOB Continuation button in an OOB authentication method, or that the 3DS SDK automatically completes without any Cardholder interaction.	3DS SDK	Length: 2 characters JSON Data Type: String Values accepted: <ul style="list-style-type: none"> 01 = Cardholder clicks the button 02 = Automatic complete 03–99 = Reserved for EMVCo future use (values invalid until defined by EMVCo) 	CReq = C Required if: <ul style="list-style-type: none"> ACS UI Type = 04; OR the 3DS SDK sends a CReq message unless Challenge Additional Code = Y.

Additional Data

Table 6: Additional Data

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
3DS Requestor App URL Indicator Field Name: threeDSRequestorAppURLInd	Indicates whether the OOB Authentication App used by the ACS during a challenge supports the 3DS Requestor App URL.	ACS	Length: 1 character JSON Data Type: String Values accepted: <ul style="list-style-type: none"> Y = 3DS Requestor App URL is supported by the OOB Authentication App N = 3DS Requestor App URL is NOT supported by the OOB Authentication App 	ARes = R AND Message Version Number = 2.2.0
3DS Requestor Authentication Indicator Field Name: threeDSRequestorAuthenticati onInd	Indicates the type of Authentication Request. This data element provides additional information to the ACS to determine the best approach for handling an Authentication Request.	3DS Server	Length: 2 characters JSON Data Type: String Values accepted: <ul style="list-style-type: none"> 01 = Payment transaction 02 = Recurring transaction 03 = Instalment transaction 04 = Add card 05 = Maintain card 06 = Cardholder verification as part of EMV token ID&V 07 = Billing Agreement 08 = Split shipment 09 = Delayed shipment 10 = Split payment 	AREq = C Required if 3DS Requestor Authentication Indicator = 08 or 09

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
			<ul style="list-style-type: none"> 11–79 = Reserved for EMVCo future use (values invalid until defined by EMVCo) 80–99 = Reserved for DS use 	
3RI Indicator Field Name: <code>threeRIInd</code>	Indicates the type of 3RI request. This data element provides additional information to the ACS to determine the best approach for handling a 3RI request.	3DS Server	Length: 2 characters JSON Data Type: String Values accepted: <ul style="list-style-type: none"> 01 = Recurring transaction 02 = Instalment transaction 03 = Add card 04 = Maintain card information 05 = Account verification 06 = Split shipment 07 = Top-up 08 = Mail Order 09 = Telephone Order 10 = Trust List status check 11 = Other payment 12 = Billing Agreement 13 = Device Binding status check 14 = Card Security Code status check 15 = Delayed shipment 16 = Split payment 	ARes = R AND Message Version Number = 2.2.0

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
			<ul style="list-style-type: none"> 17–79 = Reserved for EMVCo future use (values invalid until defined by EMVCo) 80–99 = Reserved for DS use 	
Acquirer Country Code Field Name: <code>acquirerCountryCode</code>	<p>The code of the country where the acquiring institution is located (in accordance with ISO 3166-1).</p> <p>The DS may edit the value provided by the 3DS Server.</p>	3DS Server DS	Length: 3 characters JSON Data Type: String Values accepted: <ul style="list-style-type: none"> ISO 3166-1 numeric three-digit country codes 	AReq = R
Acquirer Country Code Source Field Name: <code>acquirerCountryCodeSource</code>	<p>This data element is populated by the system setting the Acquirer Country Code.</p> <p>The DS may edit the value provided by the 3DS Server.</p>	3DS Server DS	Length: 2 characters JSON Data Type: String Values accepted: <ul style="list-style-type: none"> 01 = 3DS Server 02 = DS 03–79 = Reserved for EMVCo future use (values invalid until defined by EMVCo) 80–99 = Reserved for DS use 	AReq = R

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
<p>Authentication Method</p> <p>Field Name: <code>authenticationMethod</code></p>	<p>Indicates the list of authentication types the Issuer will use to challenge the Cardholder, when in the ARes message, or what was used by the ACS, when in the RReq message.</p> <p>Note: For 03-3RI, only present for Decoupled Authentication.</p>	ACS	<p>Size: Variable, 1–99 elements</p> <p>JSON Data Type: Array of String</p> <p>String: 2 characters</p> <p>Values accepted:</p> <ul style="list-style-type: none"> • 01 = Static Passcode • 02 = SMS OTP • 03 = Key fob or EMV card reader OTP • 04 = App OTP • 05 = OTP Other • 06 = KBA • 07 = OOB Biometrics • 08 = OOB Login • 09 = OOB Other • 10 = Other • 11 = Push Confirmation • 12 = Decoupled • 13 = WebAuthn • 14 = SPC • 15 = Behavioural biometrics • 16–79 = Reserved for future EMVCo use (values invalid until defined by EMVCo) • 80–99 = Reserved for DS use 	<p>ARes = C</p> <p>RReq = C</p> <ul style="list-style-type: none"> • Required in the ARes message if Transaction Status = C or D • Required in the RReq message if Transaction Status = Y or N

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
Browser Screen Color Depth Field Name: <code>browserColorDepth</code>	Value representing the bit depth of the colour palette for displaying images, in bits per pixel. Obtained from the Cardholder browser using the <code>screen.colorDepth</code> property. Refer to Section A.6 in the <i>Core Specification v2.3</i> for more details.	3DS Server	Length: 1–2 characters; numeric JSON Data Type: String Values accepted: <ul style="list-style-type: none"> 1–99 For a list of possible values, refer to https://www.w3schools.com/jsref/prop_screen_colordepth.asp Note: If an ACS does not support the value provided, then the ACS can use the closest supported value. For example, if the value provided = 30 and the ACS does not support that value, then the ACS could use the value = 24.	AReq = C Required when Browser JavaScript Enabled = true; otherwise, Optional
Card Security Code Field Name: <code>cardSecurityCode</code>	Three- or four-digit security code printed on the card.	3DS Server	Length: Variable, 3-4 characters, numeric. Action defined by Payment System rules. JSON Data Type: String	AReq = C Conditional based on DS rules
Card Security Code Status Field Name: <code>cardSecurityCodeStatus</code>	Enables the communication of Card Security Code Status between the ACS, the DS and the 3DS Requestor.	ACS DS	Length: 1 character JSON Data Type: String Values accepted: <ul style="list-style-type: none"> Y = Validated N = Failed validation U = Status unknown, unavailable, or does not apply 	AReq = C ARes = C Conditional based on DS rules

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
Card Security Code Status Source Field Name: cardSecurityCodeStatusSource	This data element will be populated by the system setting the Card Security Code Status.	ACS DS	Length: 2 characters JSON Data Type: String Values accepted: <ul style="list-style-type: none"> • 01 = DS • 02 = ACS • 03–79 = Reserved for EMVCo future use (values invalid until defined by EMVCo) • 80–99 = Reserved for DS use 	AReq = C ARes = C Required if the Card Security Code Status is present
Challenge Cancellation Indicator Field Name: challengeCancel	Indicator informing the ACS and the DS that the authentication has been cancelled.	3DS SDK ACS	Length: 2 characters JSON Data Type: String Values accepted: <ul style="list-style-type: none"> • 01 = Cardholder selected “Cancel” • 02 = Reserved for future EMVCo use (values invalid until defined by EMVCo). • 03 = Transaction Timed Out—Decoupled Authentication • 04 = Transaction Timed Out at ACS—other timeouts • 05 = Transaction Timed Out at ACS—First CReq not received by ACS • 06 = Transaction Error • 07 = Unknown • 08 = Transaction Timed Out at 3DS SDK 	CReq = C RReq = C <ul style="list-style-type: none"> • Required in CReq for 01-APP if the authentication transaction was cancelled by user interaction with the cancellation button in the UI or for other reasons as indicated

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
			<ul style="list-style-type: none"> 09 = Error message in response to the CRes message sent by the ACS 10 = Error message in response to the CReq message received by the ACS 11–79 = Reserved for future EMVCo use (values invalid until defined by EMVCo) 80–99 = Reserved for future DS use 	<ul style="list-style-type: none"> Required in RReq if the ACS identifies that the authentication transaction was cancelled for reasons as indicated <p>Value of 04 or 05 is required when Transaction Status Reason = 14</p>
Challenge Error Reporting Field Name: challengeErrorReporting	Copy of the Erro Message sent or received by the ACS in case of error in the CReq/CRes messages.	ACS	Length: Variable JSON Data Type: Object Values accepted: <ul style="list-style-type: none"> Refer to Table B.12 in the <i>Core Specification v2.3</i> for data elements 	RReq = C Required when Challenge Cancelation Indicator = 09 or 10
Device Information Recognised Version Field Name: deviceInfoRecognisedVersion	Indicates the highest Data Version of the Device Information supported by the ACS.	ACS	Length: Variable, minimum 3 characters JSON Data Type: String Values accepted: <ul style="list-style-type: none"> Any active Device Information Data Version is considered a valid value. Refer to <i>EMV® Specification Bulletin 255</i> for values	ARes = R

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
Transaction Challenge Exemption Field Name: transChallengeExemption	Exemption applied by the ACS to authenticate the transaction without requesting a challenge. Note: The accepted values match the values of the 3DS Requestor Challenge Indicator.	ACS	Length: 2 characters JSON Data Type: String Values accepted: <ul style="list-style-type: none">• 05 = Transaction Risk Analysis exemption• 08 = Trust List exemption• 10 = Low Value exemption• 11 = Secure Corporate Payments exemption• 79 = No exemption applied• 01–04, 06, 07, 09 and 12–78 = Reserved for EMVCo future use (values invalid until defined by EMVCo)• 80–99 = Reserved for DS use	ARes = O

File URL Data

Table 7: File URL Data

Data Element/ Field Name	Description	Source	Length/Format/Values	Message Inclusion
Card Range Data Download Indicator Field Name: <code>cardRangeDataDownloadInd</code>	Indicates if the 3DS Server supports Card Range Data from a file. Note: If present, this field contains the value Y.	3DS Server	Length: 1 character JSON Data Type: String Value accepted: <ul style="list-style-type: none">Y = Download supported	PReq = C Present if the 3DS Server supports the Card Range Data File download
Card Range Data File URL Field Name: <code>cardRangeDataFileURL</code>	Fully Qualified URL of the DS File containing the Card Range Data for download. Note: When the Card Range Data File URL is present, the file contains the entire Card Range Data, and the 3DS Server ignores any Card Range Data and Serial Number present in the PRes message.	DS	Length: Variable, maximum 2048 characters JSON Data Type: String Value accepted: <ul style="list-style-type: none">Fully Qualified URL Example: <ul style="list-style-type: none">https://server.dsdomainname.com/cardfile.json	Pres = C Present if Card Range Data Download Indicator = Y in the PReq message and the DS supports the Card Range Data File download

Message Format

Table 8: Message Extension Data Elements

Data Element	Field Name
Assigned Extension Group Identifier	id
Criticality Indicator	criticalityIndicator
Extension Name	name
Extension Version Number	version
Data	data
Recurring Data	recurringData
Recurring Amount	recurringAmount
Recurring Currency	recurringCurrency
Recurring Currency Exponent	recurringExponent
Recurring Date	recurringDate
Recurring Frequency	recurringFrequency
Recurring Indicator	recurringInd
Challenge Data	challengeData
Challenge Data Entry Masking	challengeDataEntryMasking
OOB App Label	oobAppLabel
OOB App Status	oobAppStatus
OOB App URL	oobAppURL
OOB App URL Indicator	oobAppURLInd
OOB Continuation Indicator	oobContinue
Additional Data	addData
3DS Requestor App URL Indicator	threeDSRequestorAppURLInd

Data Element	Field Name
3DS Requestor Authentication Indicator	threeDSRequestorAuthenticationInd
Acquirer Country Code	acquirerCountryCode
Acquirer Country Code Source	acquirerCountryCodeSource
Authentication Method	authenticationMethod
Browser Screen Color Depth	browserColorDepth
Card Security Code	cardSecurityCode
Card Security Code Status	cardSecurityCodeStatus
Card Security Code Status Source	cardSecurityCodeStatusSource
Challenge Cancellation Indicator	challengeCancel
Challenge Error Reporting	challengeErrorReporting
Device Information Recognised Version	deviceInfoRecognisedVersion
Transaction Challenge Exemption	transChallengeExemption
File URL Data	fileURLData
Card Range Data Download Indicator	cardRangeDataDownloadInd
Card Range Data File URL	cardRangeDataFileURL

Bridging Message Extension Samples

The following are samples of the Bridging Message Extension that may be included in the AReq, ARes, RReq, CReq, CRes, PReq or PRes messages by the 3DS Server, 3DS SDK or ACS.

Sample AReq Bridging Message Extension

```
"messageExtension": [{
  "name": "Bridging",
  "id": "A000000802-004",
  "criticalityIndicator": false,
  "version": "1.0",
  "data": {
    "recurringData": {
      "recurringAmount": "1234",
      "recurringCurrency": "826",
      "recurringExponent": "2",
      "recurringDate": "20220405",
      "recurringInd": {"amountInd": "01", "frequencyInd": "01"}
    },
    "addData": {
      "acquirerCountryCode": "250",
      "acquirerCountryCodeSource": "01",
      "browserColorDepth": "24",
      "cardSecurityCode": "123",
      "cardSecurityCodeStatus": "Y",
      "cardSecurityCodeStatusSource": "01",
      "threeDSRequestorAuthenticationInd": "08"
    }
  }
}]
```

Sample ARes Bridging Message Extension

```
"messageExtension": [{  
  "name": "Bridging",  
  "id": "A000000802-004",  
  "criticalityIndicator": false,  
  "version": "1.0",  
  "data": {  
    "addData": {  
      "authenticationMethod": ["07", "08"],  
      "cardSecurityCodeStatus": "Y",  
      "cardSecurityCodeStatusSource": "02",  
      "deviceInfoRecognisedVersion": "1.5",  
      "transChallengeExemption": "08",  
      "threeDSRequestorAppURLInd": "Y"  
    }  
  }  
}]
```

Sample RReq Bridging Message Extension

```
"messageExtension": [{  
  "name": "Bridging",  
  "id": "A000000802-004",  
  "criticalityIndicator": false,  
  "version": "1.0",  
  "data": {  
    "addData": {  
      "authenticationMethod": ["07", "08"],  
      "challengeCancel": "09",  
      "challengeErrorReporting": {  
        "threeDSServerTransID":  
          "8a880dc0-d2d2-4067-bcb1-b08d1690b26e",  
        "errorCode": "203", ...  
      }  
    }  
  }  
}]
```

Sample CReq Bridging Message Extension

```
"messageExtension": [{
  "name": "Bridging",
  "id": "A000000802-004",
  "criticalityIndicator": false,
  "version": "1.0",
  "data": {
    "challengeData": {
      "oobAppStatus": "01",
      "oobAppURLInd": "01",
      "oobContinue": "02"
    },
    "addData": {
      "challengeCancel": "09"
    }
  }
}]
```

Sample CRes Bridging Message Extension

```
"messageExtension": [{
  "name": "Bridging",
  "id": "A000000802-004",
  "criticalityIndicator": false,
  "version": "1.0",
  "data": {
    "challengeData": {
      "oobAppLabel": "OOB APP",
      "oobAppURL": "https://oobapp.com/here",
      "challengeDataEntryMasking": "N"
    }
  }
}]
```

Sample PReq Bridging Message Extension

```
"messageExtension": [{  
  "name": "Bridging",  
  "id": "A000000802-004",  
  "criticalityIndicator": false,  
  "version": "1.0",  
  "data": {  
    "fileURLData": {  
      "cardRangeDataDownloadInd": "Y"  
    }  
  }  
}]
```

Sample PRes Bridging Message Extension

```
"messageExtension": [{  
  "name": "Bridging",  
  "id": "A000000802-004",  
  "criticalityIndicator": false,  
  "version": "1.0",  
  "data": {  
    "fileURLData": {  
      "cardRangeDataFileURL":  
        "https://server.dsdomainname.com/cardfile.json"  
    }  
  }  
}]
```