Integration guide for API Retail

Objective

This document is a guide for integration of the Monetico ePAS terminal with a Point of Sales system. The document will explain:

- Integration of the API Retail
- Communication protocol
- Messages that the POS needs to call on POI (POS needs to call these functions with the appropriate
  parameters and manage the answer)
- Messages that the POI will call on POS (POS needs to provide these functions and process theses
  request according to the parameters sent)
- Administrative functions
- Typical uses cases
- Exceptions management

Integration method

Our library is delivered as an `.aar` file. To install this library please follow those bellows steps:

1. Create a module `libs` (eg : `<project>/libs`)

2. Save the `.aar` file under module libs folder (eg : `<project</libs/apiretaillibrary-release_${version}.aar`)

3. Add the below to `build.gradle` of your "`app`" module folder the dependencies

```
android {

    //Other stuff

    packagingOptions {
        pickFirst  'META-INF/*'
    }
}

dependencies {
    implementation files("../libs/apiretaillibrary-release_${version}.aar")
    implementation "xerces:xercesImpl:2.12.2+"
    implementation "com.fasterxml.jackson.module:jackson-module-jaxb-annotations:2.13.1+"
    implementation "com.fasterxml.jackson.dataformat:jackson-dataformat-xml:2.13.1+"
}
```

⊖ **Note** : Due to a security flaw the **jackson** and **xerces** libraries must have *the latest versions* =>2.13.1 and => 2.12.2.

4. Into your `build.gradle` file belongs to the `project` module add the code snippet (Optional)

```
allprojects {
    repositories {
        //
        Maven URL
        ..
            //
        flatDir {
            dirs 'libs'
        }
    }
}
```

5. Edit your proguard file in your main module

```
-keep class com.ingenico.pclservice.** { *; }
-keep class com.ingenico.pclutilities.PclLog { *; }
-keep class com.e_i.apiretaillibrary.** { *; }
```

6. Synchronize your project

Classes and methods description

For more information about below classes, for example parameters please refer to the given Java-doc.

XmlUtils::class

Globally this class helps to parse messages and valid them.

Method	Description
`isMessageValid`	This method returns a Boolean which notifies user if it's request is valid or not.
`getMessageCategoryAndType`	This method return a String from a given InputStream to indicate the Category and Type from message.
`parseResponseNexo3ToRetailLite`	This method returns the Nexo retail lite message from a Nexo 3 message.
`getOutputText`	This method returns an array of messages contained in a retail message.
`getPOISystemDataFromLoginResponse`	This method returns an array of attributes contained in a login response.
`getLoginResponseResult`	This method returns the login response result.
`getReceipt`	This method returns null or a Hash-map containing a document qualifier as key and content as value.
`getPaymentResult`	This method returns a Hash-map containing a String as key and value from given InputStream
`getReversalResult`	This method returns a Hash-map containing a String as key and value.
`isSignatureRequired`	This method returns a Boolean whether a Signature is required or not in a payment request.
`getXmlDocumentFromInputStream`	This method returns a Document object from a XML.
`formatXML`	This method returns an XML message correctly formatted.
`currentXMLGregorianCalendar`	This method returns a Gregorian calendar formatted as String.
`messageToXml`	This method returns a converted XML message into String.
`getConfirmationMessage`	This method returns null or a String containing if the **inputCommand** value is **GetConfirmation**

ApiRetailUtils::object

Method	Description
`apiRetailCodeVersion : String`	Method which returns the version code
`apiRetailVersionName : String`	Method which returns the version name
`getPairedCompanion` : Map<BlueatoothDevice, Boolean>	This method returns a collection of Ingenico Bluetooth devices with their status.
`isIngenicoDevice(address : String) : Boolean`	Method which check if device is an ingenico POI
`isCompanionConnected() : Boolean`	This method returns true if a companion is connected to the sale system

SaleToPOIRequestFactory::class

Method	Description
`newLoginRequest`	Create new Login Request with given parameters.
`newLogoutRequest`	Create new Logout Request with given parameters.
`newMessageHeader`	Create a new Message Header Type with given parameters.
`newRequestMessageHeader`	Create a new Message Header Type for requests with given parameters.
`newDiagnosticRequest`	Create a new Diagnostic Request with given parameters.
`newGetTotalsRequest`	Create a new Get Totals Request with given parameters.
`newAdminRequest`	Create a new Admin Request with given parameters.
`newReconciliationRequest`	Create a new Reconciliation Request with given parameters.
`newReversalRequest`	Create a new Reversal Request with given parameters.
`newNormalPaymentRequest`	Create a new SaleToPOIRequest as a Normal Payment Request with given parameters
`newRefundPaymentRequest`	Create a new SaleToPOIRequest as a Refund Payment Request with given parameters
`newReservationRequest`	Create a new SaleToPOIRequest as First Reservation Payment Request with given parameters
`newUpdateReservationRequest`	Create a new SaleToPOIRequest as an Update Reservation Payment Request with given parameters
`newCompletionReservationRequest`	Create a new SaleToPOIRequest as a Completion Reservation Payment Request with given parameters
`newCardValidityCheckRequest`	Create a new SaleToPOIRequest as a Card Validity Check Payment Request with given parameters
`newNoShowRequest`	Create a new SaleToPOIRequest as a No Show Request Payment request with given parameters

SaleToPOIResponseFactory::class

This class helps developer to create new Objects Responses to interact with the POI.

Method	Description
newInputResponse	Create new Input Response with given parameters.

CommonActivity::class

This class/activity helps developer to manage the lifecycle of an app when using INGENICO devices. ***Your activity needs to extend this activity.***

Method	Description
activateCompanion	This method activates an Ingenico Bluetooth companion.
initAllServices	This method initializes all services that needed for the application to work.
finalizeAllPclServices	This method finalizes all services except our broadcastReceiver.
finalizeAllServices	This method finalizes all services.
sendLoginRequest	This abstract method needs to be implemented by the user in order to be able to communicate with the POI.
proceedMessage	This abstract method needs to be implemented by the user if he wants to treat responses messages.
onPoiConnected	This abstract method needs to be implemented by the user if he want to observe POI bridge state on connected
onPoiDisconnected	This abstract method needs to be implemented by the user if he want to observe the POI bridge state on disconnected
updateServiceNotification(smallIcon: Int, largeIcon: Bitmap?, title : String, description: String)	allow to customize the notification of the PCL service

Class	Description
SendRequestToPoiTask	This class sends requests to POI or Error tag.

IOnCallBackSendRequest::interface

This interface allows the user to implement the onSendRequest method and get a callback when a message has been send to the POI.

Utilization example

Note: There is a project "POS_Simulator" which demonstrates how things work.

Prerequisite

The library has his own manifest with permissions that does not need to be implemented again in the App.

```
<uses-permission android:name="android.permission.INTERNET" /><uses-permission
android:name="android.permission.WRITE_EXTERNAL_STORAGE" /><uses-permission
android:name="android.permission.ACCESS_NETWORK_STATE" /><uses-permission
android:name="android.permission.ACCESS_WIFI_STATE" />

<uses-permission android:name="android.permission.BLUETOOTH_ADMIN" /><uses-
permission
android:name="android.permission.BLUETOOTH" /><uses-permission
android:name="android.permission.ACCESS_FINE_LOCATION" /><uses-permission
android:name="android.permission.FOREGROUND_SERVICE" />
```

Step-01 : Common Activity

1. First, you will need to extend your activity with our `CommonActivity::class`. You will need to implement 5 methods:

   - `sendLoginRequest()` : in order to send requests to the POI, you will need to mount the VPN bridge between the POI and the smartphone (explain at step 03). Then automatically the server between the two entities will be started and will be waiting to receive the login request that you have created. (there is an example is the project "POS_Simulator")
   - `proceedMessage(String msg)` : that's where you get the messages coming from the POI and where you can treat them.
   - `onSendRequest(String messageCategory)` : callback method called when you send a request thanks to the `SendRequestToPoi::class`
   - `onPoiConnected()` : callback method called when the POI bridge is mounted
   - `onPoiDisconnected()` : callback method called when the POI bridge is dismantled

2. The Observer implementation is not required and **should be removed** with the override function update().

Step-02: OnCreate()/onResume()

At the start of activity, one thing need to be done:

1. Call `initAllServices()` function to initialize all services needed for the application to start and bind services to listen connection changes. ***We recommend you to implement this in*** `onResume` ***life-cycle method.***

Step-03 : Connect to companion

There are three steps:

1. Pair your POI (iCMP/LINK) with your POS(smartphone)
2. Use the `getPairedCompanions()` function to retrieve all Ingenico Bluetooth companions.
3. Then use the `activateCompanion(String bluetoothAddress)` with the Bluetooth address of one of a companion retrieved before. This will establish the bridge between the POI and

POS and start the server.

Note: once the server between the POS and POI is established, your implementation of `sendLoginRequest()` **method will be automatically called.**

Step-04 : Treatment of messages

When connection is established, we use the `proceedMessage(String msg)` to treat messages emitted by the POI Moreover there are some methods you can use following what you receive from the POI like:

- `getPOISystemDataFromLoginResponse()` : get poiId from a login response.
- `getPaymentResult()` : get TransactionId, Timestamp & MerchantId, sale reference ID, authorized amount and validity date from a transaction if it's accepted and if exist.
- `getReceipt()` : get a document qualifier & content from a print request.

Step-05 : onDestroy()

When you are quitting your application, you have to be sure to close every services/instances of your objects. That's why you need to call the `finalizeAllServices()` function.

Note: you have the `finalizeAllPclServices()` **function available. You can call this method if you**
want to disconnect from a POI without wanting to quit the application.

> Note: In the project "POS_Simulator" there is an assets folder when you have multiple XML requests which some of them are used. Sometimes you need to modify them in order to proceed a payment for example or you will get a "duplicate" message. In that particular case, you just need to modify the payment date.

Messages

Formatting

The messages use the XML format. Times are expressed in local time, together with a time zone offset in hours and minutes.

```
YYYY-MM-DDThh:mm:ss.sTZD (2013-11-27T14:24:15.453-05:00)
```

⚠ We recommend, during implementation, to validate the message syntax using the XML schema provided: with `XmlUtils.isXmlValid(xmlInputStream)` method.

In the messages description, Fields in grey are not used/supported.

TrainingModeFlag	[0..1]	S	NOT USED

Communication protocol

POS and POI communicate over **TCP/IP**. A transport address for the TCP protocol is composed of :

1. The IP Address of the host on which the application protocol lives.
2. The TCP Port, to dispatch the connections to the application. TCP Transport is used (no HTTP/TLS)

⚠️ For security reasons, TCP communication port is opened by the POS on the POS, for requesting an application message exchange with the POI. If successful, the Sale System is then responsible for initiating the application exchange. If connection fails, POI system must retry indefinitely to connect to Sale System with an adaptive delay between attempts

Message delimitation

Application messages are preceded by four bytes containing the length in network order, of the application message. The length does not include the four bytes containing the length.
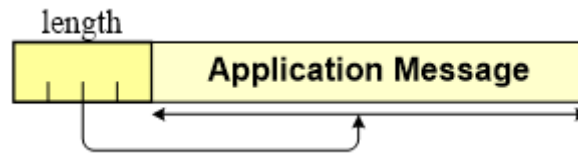
So the message sent with the raw TCP transport protocol start with this prefix length, an example dump of the message sent by the transport protocol is presented below.

```
0000  00 00 01 55 3C 3F 78 6D 6C 20 76 65 72 73 69 6F  |...U<?xml versio|0010
6E 3D 22 31 2E 30 22 20 65 6E 63 6F 64 69 6E 67  |n="1.0" encoding|0020  3D 22 55
54 46 2D 38 22 3F 3E 3C 53 61 6C 65 54  |="UTF-8"?>
<SaleT|0030  6F 50 4F 49 52 65 71 75 65 73 74 20 78 6D 6C 6E  |oPOIRequest
xmln|0040  73 3A 78 73 69 3D 22 68 74 74 70 3A 2F 2F 77 77
|s:xsi="http://ww|0050  77 2E 77 33 2E 6F 72 67 2F 32 30 30 31 2F 58 4D
|w.w3.org/2001/XM|0060  4C 53 63 68 65 6D 61 2D 69 6E 73 74 61 6E 63 65
|LSchema-instance|0070  22 20 78 73 69 3A 6E 6F 4E 61 6D 65 73 70 61 63  |"
xsi:noNamespac|0080  65 53 63 68 65 6D 61 4C 6F 63 61 74 69 6F 6E 3D
|eSchemaLocation=|0090  22 45 70 61 73 53 61 6C 65 54 6F 50 4F 49 4D 65
|"EpasSaleToPOIMe|00A0  73 73 61 67 65 73 2E 78 73 64 22 3E 3C 4D 65 73
|ssages.xsd"><Mes|00B0  73 61 67 65 48 65 61 64 65 72 20 4D 65 73 73 61
|sageHeader Messa|00C0  67 65 43 6C 61 73 73 3D 22 53 65 72 76 69 63 65
|geClass="Service|00D0  22 20 4D 65 73 73 61 67 65 43 61 74 65 67 6F 72  |"
MessageCategor|00E0  79 3D 22 4C 6F 67 6F 75 74 22 20 4D 65 73 73 61
|y="Logout" Messa|00F0  67 65 54 79 70 65 3D 22 52 65 71 75 65 73 74 22
|geType="Request"|0100  20 53 65 72 76 69 63 65 49 44 3D 22 36 31 33 22  |
ServiceID="613"|0110  20 53 61 6C 65 49 44 3D 22 53 61 6C 65 54 65 72  |
SaleID="SaleTer|0120  6D 41 22 20 50 4F 49 49 44 3D 22 50 4F 49 54 65  |mA"
POIID="POITe|0130  72 6D 31 22 2F 3E 3C 4C 6F 67 6F 75 74 52 65 71  |rm1"/>
<LogoutReq|0140  75 65 73 74 2F 3E 3C 2F 53 61 6C 65 54 6F 50 4F  |uest/></SaleToPO
</SaleToPO|0150  49 52 65 71 75 65 73 74 3E                        |IRequest>
|
```

Kep Alive Message

The POS system may have an idle activity timeout counter. To maintain the connection with the POS, the POI will send *Keep alive* messages. The Message Delimitation transport service provides the *Keep Alive* service:

- After a certain time without exchange on an open connection, send four null bytes (hexadecimal 00) on the transport connection.
- As the reception of those four null bytes is considered as an application message of length zero, they must be ignored by the receiver.

Message flow

- POS sends messages to POI

  - Payment / Refund / Reversals
  - Administrative functions
- POI sends messages to the POS

  - Answers to POS request
  - Display / input / Print requests
  - Event notifications
  - Keep Alive
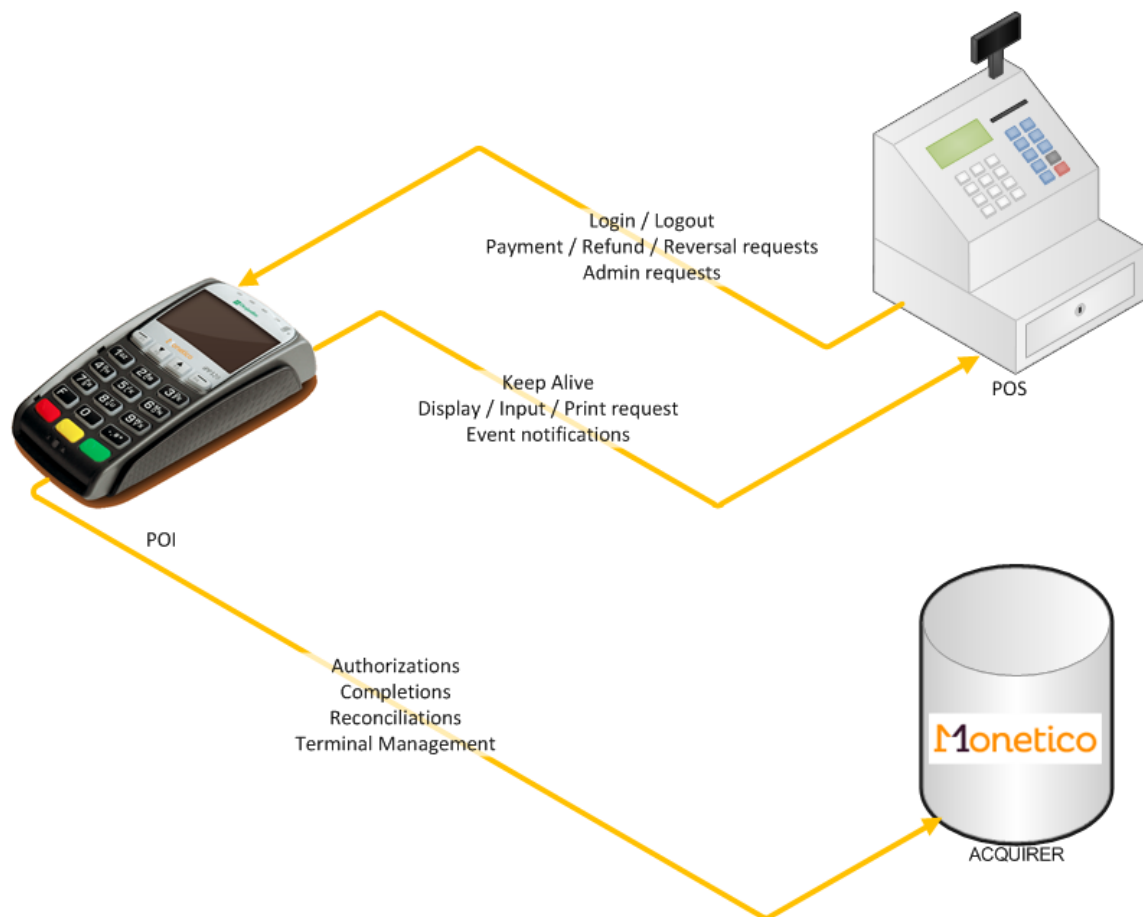
⚠ **The POS can NOT send display / input / print requests to the terminal. Messages from the terminal to the acquirer are not described in this document.**

Description of messages from POS to POI

LOGIN

Login message is initiated by the Sale System after the occurrence of some event like the change of Cashier, the end of initialisation of the Sale system or the POI System, and because request of service to the POI Terminal have to be made by the Sale System. It can be sent several times.

Login Request

LoginRequest Component	Mult	Profile	Rule
MessageHeader	[1..1]		
ProtocolVersion	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Login
MessageType	[1..1]		Request
ServiceID	[1..1]		Provided by the POS System. Token that will be reused in the answer. Change this token for every request.
SaleID	[1..1]		ID of the POS System
POIID	[1..1]		UNKNOWN
LoginRequest	[1..1]		
DateTime	[1..1]		
SaleSoftware	[1..1]		
ManufactureID	[1..1]		Provided by the POS System
ApplicationName	[1..1]		Provided by the POS System
SoftwareVersion	[1..1]		Provided by the POS System
CertificationCode	[1..1]		Provided by the POS System
SaleTerminalDate	[0..1]		NOT USED
TerminalEnvironment	[1..1]		
SaleCapabilities	[1..1]		
SaleProfile	[0..1]		
GenericProfile	[0..1]		
ServiceProfiles	[0..1]		
TotalsGroupID	[0..1]		
TrainingModeFlag	[0..1]	S	NOT USED
OperatorLanguage	[1..1]		NOT USED Default value for device type displays
OperatorID	[0..1]	S	Optional default if not in the payment request
ShiftNumber	[0..1]	S	NOT USED
TokenRequstedType	[0..1]		NOT USED

LoginRequest Component	Mult	Profile	Rule
CustomerOrderReq	[0..1]		NOT USED
POISerialNumber	[1..1]	S	NOT USED

Message example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="2906520762"
        MessageType="Request" MessageCategory="Login" MessageClass="Service" />
    <LoginRequest OperatorID="12345" OperatorLanguage="fr">
        <DateTime>2013-11-27T14:24:15.453-05:00</DateTime>
        <SaleSoftware CertificationCode="DF502SS65" SoftwareVersion="1.00"
            ApplicationName="EpasRetailerSimulator" ManufacturerID="Desjardins"
/>
    </LoginRequest>
</SaleToPOIRequest>
```

Login Response

LoginResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
ProtocolVersion	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Login
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
LoginResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		Success Failure
ErrorCondition	[0..1]		If Result is not Success
AdditionalResponse	[0..1]		If present, the POI logs it for further examination
POISystemData	[0..1]		if Response.Result is Success
DateTime	[1..1]		
POISoftware	[1..1]		
ManufacturerID	[1..1]		
ApplicationName	[1..1]		
SoftwareVersion	[1..1]		
CertificationCode	[1..1]		
POITerminalData	[0..1]		Present if the login involves a POI Terminal
TerminalEnvironment	[1..1]		Copy
POICapabilities	[1..1]		
POIProfile	[0..1]		If at least one element is present. The Sale System decides if it can continue or not.
GenericProfile	[0..1]		default Standard
ServiceProfiles	[0..1]		If a service profile could be requested
POISerialNumber	[1..1]		
POIStatus	[0..1]		if Response.Result is Success

LoginResponse Component	Mult.	Profile	Rule
GlobalStatus	[1..1]		
SecurityOKFlag	[0..1]		If security module present
PEDOKFlag	[0..1]		If PED present
CardReaderOKFlag	[0..1]		If card reader device present
PrinterStatus	[0..1]		If printer device present
CommunicationOKFlag	[0..1]		If communication infrastructure present
CashHandlingDevice	[0..n]		If cash handling devices present.
CashHandlingOKFlag	[1..1]		
Currency	[1..1]		
CoinsOrBills	[1..n]		
UnitValue	[1..1]		
Number	[1..1]		
FraudPreventionFlag	[0..1]		Default false

Message example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader ProtocolVersion="2.0" MessageClass="Service"
MessageCategory="Login"
        MessageType="Response" ServiceID="2906520762" SaleID="SaleTermA"
POIID="POITerminal1" />
    <LoginResponse>
        <Response Result="Success" />
        <POISystemData>
            <DateTime>2009-01-29T09:13:49.8+01:00</DateTime>
            <POISoftware ManufacturerID="ElecFundsCo" ApplicationName="POISys"
                SoftwareVersion="5.0.001" CertificationCode="ECTS2PP001" />
            <POITerminalData TerminalEnvironment="Attended"
POISerialNumber="78910AA46010005">
                <POICapabilities>CustomerDisplay CustomerError MagStripe ICC
Contactless
                </POICapabilities>
            </POITerminalData>
            <POIStatus GlobalStatus="OK" SecurityOKFlag="true" PEDOKFlag="true"
                CardReaderOKFlag="true" PrinterStatus="false"
CommunicationOKFlag="true" />
        </POISystemData>
    </LoginResponse>
</SaleToPOIResponse>
```

Check the following elements:

- In `Response`, **Result** must be <mark>Success</mark>.
- In `POIStatus`, **GlobalStatus** must be <mark>OK</mark>.

LOGOUT

Logout exchange is initiated by the Sale System to put an end to the association (the session) between a Sale Terminal to a POI Terminal, or between the Sale System and the POI System.

The Sale System has to wait for the response of the messages in progress before to send the Logout request. If there are transactions in progress on the POI Terminal or the Sale Terminal, the POI Terminal refuses the Logout.

When the logout is completed, the POI will not accept any subsequent request from the POS except LOGIN.

Logout exchange can be skipped by a new Login. The POI accepts a Login request message from a Sale Component already logged in. All information of the new Login replaces those stored during the previous Login.

Logout Request

LogoutRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Logout
MessageType	[1..1]		Request
ServiceID	[1..1]		Provided by the POS System. Token that will be reused in the answer. Change this token for every request.
SaleID	[1..1]		ID of the POS System
POIID	[1..1]		ID of the POI where the login request is sent
LogoutRequest	[1..1]		
MaintenanceAllowed	[0..1]		Not used

Message example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="4663769906"
        MessageType="Request" MessageCategory="Logout" MessageClass="Service" />
    <LogoutRequest />
</SaleToPOIRequest>
```

Logout Reponse

LogoutResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Logout
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
LogoutResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		Success Failure
ErrorCondition	[0..1]		If Result is not Success
AdditionalResponse	[0..1]		If present, the POI logs it for further examination

Reponse successful

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Logout"
MessageType="Response"
        ServiceID="4663769906" SaleID="SaleTermA" POIID="POITerminal1" />
    <LogoutResponse>
        <Response Result="Success" />
    </LogoutResponse>
</SaleToPOIResponse>
```

Check the following elements:

- In Response, **Result** must be <mark>Success</mark>.

Response unsuccessful

if some messages are currently processed by the POI

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Logout"
MessageType="Response"
        ServiceID="4663769906" SaleID="SaleTermA" POIID="POITerminal1" />
    <LogoutResponse>
        <Response Result="Failure" ErrorCondition="Busy" />
    </LogoutResponse>
</SaleToPOIResponse>
```

PAYMENT

The payment request is initiated by the POS. During the payment processing, the POI sends several display, input, or print requests to the POS. POS must process these requests (see chapter Message from POI to POS).

⚠ In case of a manual card entry, the attendant will have to input the card information on the POI. The POI may refuse the manual card input if the payment context does not allow it.

In the Payment request, the Sale Terminal sends an identification of the Sale transaction in `SaleData.SaleTransactionID`, in the Payment response the POI Terminal sends the identification of the payment transaction in `POIData.POITransactionID`. For a split payment, use the `SplitPaymentFlag = true`. In case of voice authorization, the original declined transaction information must be provided in the `OriginalTransaction` block.

Payment Request

PaymentRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
PaymentRequest	[1..1]		
SaleData	[1..1]		
OperatorID	[0..1]		if different from the Login and *see Login .SaleData*
OperatorLanguage	[0..1]		if different from the Login
ShiftNumber	[0..1]		if different from the Login and *see Login .SaleData*
SaleTransactionID	[1..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
SaleReferenceID	[0..1]	R	Mandatory if payment reservation
SaleTerminalData	[0..1]		If content is not empty
TerminalEnvironment	[0..1]		If modified since the login
SaleCapabilities	[0..1]		If modified since the login (devices failures)
TotalsGroupID	[0..1]		if modified since, or not in the login and used by the Sale System
TokenRequestedType	[0..1]		If a token is requested.
CustomerOrderID	[0..1]		If the payment is related to an open customer order.
CustomerOrderReq	[0..1]		If customer orders must be listed in the response message.
SaleToPOIData	[0..1]		Stored with the transaction
SaleToAcquirerData	[0..1]		Send to the Acquirer if present
SaleToIssuerData	[0..1]		Send to the Acquirer if present
StatementReference	[0..1]		Information to print on the bank statement
PaymentTransaction	[1..1]		
AmountsReq	[1..1]		
Currency	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
RequestedAmount	[0..1]	mandatory if not O	The value has to be greater than 0.
CashBackAmount	[0..1]	O	If payment with cash back requested by the Sale System.
TipAmount	[0..1]		If payment with tip requested by the Sale System.
PaidAmount	[0..1]		if SplitPaymentFlag is true
MinimumAmountToDeliver	[0..1]	O	if unknown maximum amount for a OneTimeReservation or minimum amount requested by the Sale System
MaximumCashBackAmount	[0..1]		Maximum amount which could be requested for cash-back to the Sale System.
MinimumSplitAmount	[0..1]		Minimum amount of a split, which could be requested.
OriginalPOITransaction	[0..1]	*B*OR	In case of voice authorisation (referral).
POITransactionID	[0..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIID	[0..1]		If original transaction is coming from another POI
ReuseCardDataFlag	[0..1]	*B*OR	false
ApprovalCode	[0..1]		If referral
TransactionConditions	[0..1]		If one data element is present
AllowedPaymentBrand	[0..n]		Restrict brand if present
AcquirerID	[0..n]		Restrict to these Acquirer if present
DebitPreferredFlag	[0..1]		default false The preferred type of payment is a debit transaction rather than a credit transaction.
AllowedLoyaltyBrand	[0..n]	L	Restrict brand if present
LoyaltyHandling	[0..1]	L	default Forbidden
CustomerLanguage	[0..1]		If the language is selected by the Customer on the Sale System before the request to the POI.
ForceOnlineFlag	[0..1]		default false. Go online if data sent
ForceEntryMode	[0..n]		Restrict entry mode if sent and no PaymentData or LoyaltyData.CardAcquisitionReference
MerchantCategoryCode	[0..1]		The payment implies a specific MCC.
SaleItem	[0..n]	*S* L	If purchased products are required for the payment or loyalty

PaymentRequest Component	Mult.	Profile	Rule
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitOfMeasure	[0..1]		
Quantity	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitPrice	[0..1]		
ItemAmount	[1..1]		
TaxCode	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
SaleChannel	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
ProductLabel	[0..1]		
<AdditionalProductInfo	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
PaymentData	[0..1]		If one data element is present
PaymentType	[0..1]		default Normal
SplitPaymentFlag	[0..1]		Default false if split of the amount with possible fleet cards.
RequestedValidityDate	[0..1]	OR	If time period of the OneTimeReservation, FirstReservation or UpdateReservation is requested
CardAcquisitionReference	[0..1]	E	if the card data comes from the previous CardAcquisition
TransactionID	[1..1]		
TimeStamp	[1..1]		
Instalment	[0..1]		If PaymentType is "Instalment" or "IssuerInstalment"
InstalmentType	[0..1]		
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		

PaymentRequest Component	Mult.	Profile	Rule
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CustomerOrder	[0..1]		If a customer orders has to be created.
CustomerOrderID	[1..1]		
StartDate	[1..1]		
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AdditionalInformation	[0..1]		
PaymentInstrumentData	[0..1]		If payment instrument data is read by the Sale System
PaymentInstrumentType	[1..1]		
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
CardData	[0..1]		If PaymentInstrumentType is "Card"
EntryMode	[1..1]		not (ICC or SynchronousICC)
SensitiveCardData	[0..1]		If structure non empty (could be CMS protected EnvelopedData)
PAN	[0..1]		if EntryMode is File, Keyed or Manual
CardSeqNumb	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
ExpiryDate	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
TrackData	[0..3]		if EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData
SensitiveMobileData	[0..1]		If unprotected mobile data
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		
IdentificationType	[1..1]		
StoredValueID	[1..1]		
LoyaltyData	[0..n]	L	Loyalty cards used with the payment transaction and read by the Sale System
CardAcquisitionReference	[0..1]	E	see Loyalty request
TransactionID	[1..1]		
TimeStamp	[1..1]		
LoyaltyAccountID	[0..1]		see Loyalty request

PaymentRequest Component	Mult.	Profile	Rule
EntryMode	[1..1]		
IdentificationType	[1..1]		
LoyaltyID	[1..1]		
LoyaltyAmount	[0..1]		When the Sale System want to make an additional award the Loyalty account
LoyaltyUnit	[0..1]		see Loyalty request
Currency	[0..1]		see Loyalty request
AmountValue	[1..1]		

Message example

Payment with tip and cash-back

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="8716631667"
        MessageType="Request" MessageCategory="Payment" MessageClass="Service"
/>
    <PaymentRequest>
        <SaleData>
            <SaleTransactionID TimeStamp="2013-11-20T15:00:14.500-05:00"
                TransactionID="3460720531" />
        </SaleData>
        <PaymentTransaction>
            <AmountsReq RequestedAmount="35.00" Currency="CAD"
CashBackAmount="20.00"
                TipAmount="5.00" />
        </PaymentTransaction>
        <PaymentData PaymentType="Normal" />
    </PaymentRequest>
</SaleToPOIRequest>
```

Payment Response

PaymentResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
PaymentResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		Success Failure
ErrorCondition	[0..1]		If Result is not Success, or on warning condition
AdditionalResponse	[0..1]		If present, the POI logs it for further examination
SaleData	[1..1]		
SaleTransactionID	[1..1]		Copy
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIData	[1..1]		
POITransactionID	[1..1]		
TransactionID	[1..1]		Identification of the transaction for the POI
TimeStamp	[1..1]		Date time of the payment request
POIReconciliationID	[0..1]		If Result is Success or Partial
PaymentResult	[0..1]		If one data element is present
PaymentType	[0..1]		Copy, default Normal
PaymentInstrumentData	[0..1]		If a payment instrument is analysed by the POI.
PaymentInstrumentType	[1..1]		Card or Cash (Cash used in Nomade or entourage mode only)
CardData	[0..1]		If PaymentInstrumentType is "Card"
PaymentBrand	[0..1]		If card PAN is readable

PaymentResponse Component	Mult.	Profile	Rule
MaskedPAN	[0..1]		If required for the card, instead of clear PAN
PaymentAccountRef	[0..1]		Mandatory if available.
EntryMode	[1..1]		Copy if present in the request
CardCountryCode	[0..1]		If available in the card
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
SensitiveCardData	[0..1]		If structure non empty (unprotected)
PAN	[0..1]		If card PAN is readable
CardSeqNumb	[0..1]		If data available on the card
ExpiryDate	[0..1]		If data available on the card
TrackData	[0..4]		if configured to be sent, and EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
AllowedProductCode	[0..n]	SLOR	If ErrorCondition is "PaymentRestriction" (some products are not payable by the payment card)
PaymentToken	[0..1]		If a payment token has been requested in the request message, or in the Login request for the session.
TokenRequestedType	[1..1]		Copy
TokenValue	[1..1]		
ExpiryDateTime	[0..1]		
CustomerOrder	[0..n]		If the payment is related to a customer order in progress or if the list of customer orders has been requested.
CustomerOrderID	[1..1]		
ClosedOrderFlag	[0..1]		default "false"
StartDate	[1..1]		
EndDate	[0..1]		If ClosedOrderFlag = "true".
TotalAmount	[1..1]		

PaymentResponse Component	Mult.	Profile	Rule
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AccessedBy	[0..1]		If order process in progress.
AdditionalInformation	[0..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData
SensitiveMobileData	[0..1]		If unprotected mobile data

PaymentResponse Component	Mult.	Profile	Rule
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		Copy if present in the request.
IdentificationType	[1..1]		
StoredValueID	[1..1]		
AmountsResp	[0..1]		If Result is Success or Partial
Currency	[0..1]		Mandatory for currency conversion.
AuthorizedAmount	[1..1]		
TotalRebatesAmount	[0..1]	L	If rebate on the total amount or rebate on individual products
TotalFeesAmount	[0..1]	S	If fees to be charged from a financial service
CashBackAmount	[0..1]	S	If cashback service was performed with the payment
TipAmount	[0..1]		If payment with tip is configured on the POI c Sale System.
Instalment	[0..1]		Absent if PaymentType is not "IssuerInstalment"
InstalmentType	[0..1]		Copy
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".

PaymentResponse Component	Mult.	Profile	Rule
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CurrencyConversion	[0..n]		
CustomerApprovedFlag	[0..1]		Default true
ConvertedAmount	[1..1]		
AmountValue	[1..1]		
Currency	[1..1]		
Rate	[0..1]		Conversion rate of the target currency against the source currency.
Markup	[0..1]		Markup of the conversion.
Commission	[0..1]		Commission of the conversion.
Declaration	[0..1]		A declaration has to be presented to the customer.
MerchantOverrideFlag	[0..1]		default "false" If payment forced by the Cashier.
CapturedSignature	[0..1]		If handwritten signature is captured on the POI by a signature capture device.
AreaSize	[0..1]		
SignaturePoint	[1..n]		
X	[1..1]		
Y	[1..1]		
ProtectedSignature	[0..1]		Encrypted handwritten signature captured on the POI by a signature capture device.
CustomerLanguage	[0..1]		If the customer language is different from the default language or different from the CustomerLanguage of the PaymentRequest if any.
OnlineFlag	[0..1]		default "true" "true" if the payment transaction processing has required the approval of a host.

PaymentResponse Component	Mult.	Profile	Rule
AuthenticationMethod	[0..1]		Methods for customer authentication.
ValidityDate	[0..1]	OR	If OneTimeReservation, FirstReservation or UpdateReservation and Result is Success
PaymentAcquirerData	[0..1]		If card is analysed and data available
AcquirerID	[0..1]		If several Acquirers
MerchantID	[1..1]		
AcquirerPOIID	[1..1]		
AcquirerTransactionID	[0..1]		If provided by the Acquirer and different from the POITransactionID.
TransactionID	[1..1]		
TimeStamp	[1..1]		
ApprovalCode	[0..1]		If available
HostReconciliationID	[0..1]		If provided by the Acquirer
LoyaltyResult	[0..n]	L	Loyalty cards used with the payment transaction. First the loyalty account present in the request in the same order if any.
LoyaltyAccount	[1..1]		
LoyaltyAccountID	[1..1]		
EntryMode	[1..1]		
IdentificationType	[1..1]		
IdentificationSupport	[1..1]		
LoyaltyID	[1..1]		
LoyaltyBrand	[0..1]		see Loyalty response
CurrentBalance	[0..1]		see Loyalty response
LoyaltyAmount	[0..1]		see Loyalty response
LoyaltyUnit	[0..1]		see Loyalty response
Currency	[0..1]		see Loyalty response
AmountValue	[1..1]		
LoyaltyAcquirerData	[0..1]		see Loyalty response
LoyaltyAcquirerID	[0..1]		see Loyalty response

PaymentResponse Component	Mult.	Profile	Rule
ApprovalCode	[0..1]		see Loyalty response
LoyaltyTransactionID	[0..1]		see Loyalty response
TransactionID	[1..1]		
TimeStamp	[1..1]		
HostReconciliationID	[0..1]		see Loyalty response
Rebates	[0..1]		see Loyalty response
TotalRebate	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
SaleItemRebate	[0..n]		see Loyalty response
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		if present in the related SaleItem
UnitOfMeasure	[0..1]		see Loyalty response
Quantity	[0..1]		see Loyalty response
ItemAmount	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
PaymentReceipt	[0..2]		If Basic profile implementation with no printer on the POI.
DocumentQualifier	[1..1]		SaleReceipt or CashierReceipt
IntegratedPrintFlag	[0..1]		same as PrintRequest
RequiredSignatureFlag	[0..1]		default false.
OutputContent	[1..1]		
OutputFormat	[1..1]		Text, XHTML
OutputText	[0..n]		same as Display
Text	[1..1]		same as Display
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display
CharacterWidth	[0..1]		same as Display

PaymentResponse Component	Mult.	Profile	Rule
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display
Alignment	[0..1]		same as Display
EndOfLineFlag	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display

Message example

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
    ServiceID="8716631667" SaleID="SaleTermA" POIID="POITerminal1" />
<SaleToPOIResponse>
<PaymentResponse>
    <Response Result="Success" />
    <SaleData>
        <SaleTransactionID TimeStamp="2013-11-20T15:00:14.500-05:00"
TransactionID="3460720531" />
    </SaleData>
    <POIData>
        <POITransactionID TransactionID="000020" TimeStamp="2013-11-20T15:00:51-
05:00" />
    </POIData>
</PaymentResponse>
</SaleToPOIResponse>
```

⚠ **The POS must store the** `POITransactionID.TransactionID` **and the timestamps in order to beable to void the transaction**. This `transactionID` and the original timestamps are mandatory in the corresponding cancellation message.

Message example : Standard Payment

Request

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="8716631666"
        MessageType="Request" MessageCategory="Payment" MessageClass="Service"
/>
    <PaymentRequest>
        <SaleData>
            <SaleTransactionID TimeStamp="2013-11-20T15:00:14.500-05:00"
                TransactionID="3460720531" />
        </SaleData>
        <PaymentTransaction>
            <AmountsReq RequestedAmount="12.00" Currency="CAD" />
        </PaymentTransaction>
        <PaymentData PaymentType="Normal" />
    </PaymentRequest>
```

```
    </SaleToPOIRequest>
```

Response

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="8716631666" SaleID="SaleTermA" POIID="POITerminal1" />
    <PaymentResponse>
        <Response Result="Success" />
        <SaleData>
            <SaleTransactionID TimeStamp="2013-11-20T15:00:14.500-05:00"
                TransactionID="3460720531" />
        </SaleData>
        <POIData>
            <POITransactionID TransactionID="000020" TimeStamp="2013-11-
20T15:00:51-05:00" />
        </POIData>
        <PaymentResult PaymentType="Normal">
            <AmountsResp AuthorizedAmount="12.00" />
            <PaymentAcquirerData AcquirerID="010278" AcquirerPOIID="25000221">
                <ApprovalCode>197194</ApprovalCode>
            </PaymentAcquirerData>
            <PaymentInstrumentData PaymentInstrumentType="Card" />
        </PaymentResult>
    </PaymentResponse>
</SaleToPOIResponse>
```

> **To cancel a payment**
>
> The process at the Sale system to cancel a payment is:
>
> - If the payment transaction is still in progress, because the Payment response message is not received and a TransactionStatus message response contains `Result="Failure"` and `ErrorCondition="InProgress"`, an **Abort request** has to be sent.
> - If the payment transaction is completed or the Abort does not succeed (Payment response does not contain `ErrorCondition= "Aborted"`), a **Reversal request** message has to be sent.
> - If the Reversal response message indicates a failure, a **refund transaction** has to be initiated (Payment request message with `PaymentType= "Refund"`).

ABORT

The Abort message allows a Sale Terminal to halt and terminate prematurely the processing of a message. Most of the time a message is aborted, because the processing is too long or the Sale System is resolving error situation.

- The processing of the message to abort is stopped as soon as possible.
- The POI sends the response of the payment message to abort, with Result set to `Failure`, `ErrorCondition` set to `Aborted`

When the Sale System sends an Abort request on a message in progress and the abort is not possible, the POI continues the processing and The POI sends also an Event Notification containing the `EventToNotify` `CompletedMessage` and then sends the response to the original message.

The Abort request has never a response. In case of error an Event notification message is sent with the `Reject`

⚠ **It is a good practice to call the `TransactionStatus` service before trying to abort a transaction.**

⚠ **When processing a payment request, the POI will successfully process an abort request up to the point where the card is inserted in the terminal.**

AbortRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Abort
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
AbortRequest	[1..1]		
MessageReference	[1..1]		
MessageCategory	[0..1]		Payment or Reversal
ServiceID	[0..1]		Must be present.
DeviceID	[0..1]		Not used
SaleID	[1..1]		default MessageHeader.SaleID
POIID	[1..1]		default MessageHeader.POIID
AbortReason	[1..1]		Free text to log for further examination.
DisplayOutput	[0..1]		To display an abort message to the Customer
Device	[1..1]		CustomerDisplay
InfoQualify	[1..1]		Error
OutputContent	[1..1]		
OutputFormat	[1..1]		
PredefinedContent	[0..1]		same as Display
ReferenceID	[1..1]		
Language	[0..1]		same as Display
OutputText	[0..n]		same as Display
Text	[1..1]		
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartRow	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display

AbortRequest Component	Mult.	Profile	Rule
CharacterWidth	[0..1]		same as Display
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display
Alignment	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display
OutputSignature	[0..1]		If protection has to be provided to the vendor on the text to display.

Request

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="1880299375"
        MessageType="Request" MessageCategory="Abort" MessageClass="Service" />
    <AbortRequest>
        <MessageReference MessageCategory="Payment" ServiceID="642" />
        <AbortReason>Manual abort</AbortReason>
    </AbortRequest>
</SaleToPOIRequest>
```

Message rejection by the POI

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Event" MessageCategory="Event"
MessageType="Notification"
        DeviceID="182" SaleID="SaleTermA" POIID="POITerminal1" />
    <EventNotification TimeStamp="2013-11-27T14:24:22.000-04:00"
EventToNotify="Reject">
        <EventDetails>NotAllowed</EventDetails>
        <RejectedMessage></RejectedMessage>
    </EventNotification>
</SaleToPOIRequest>
```

Payment Request

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Request"
        ServiceID="642" SaleID="SaleTermA" POIID="POITerm1" />
    <PaymentRequest>
        <SaleData>
            <SaleTransactionID TransactionID="579" TimeStamp="2009-06-
09T23:12:42.4+01:00" />
```

```xml
            </SaleData>
            <PaymentTransaction>
                <AmountsReq Currency="EUR" RequestedAmount="104.11" />
            </PaymentTransaction>
            <PaymentData PaymentType="Normal" />
        </PaymentRequest>
</SaleToPOIRequest>
```

Abort Request

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Abort"
MessageType="Request"
        ServiceID="498" SaleID="SaleTermA" POIID="POITerm1" />
    <AbortRequest>
        <MessageReference MessageCategory="Payment" ServiceID="642" />
        <AbortReason>Waiting time</AbortReason>
    </AbortRequest>
</SaleToPOIRequest>
```

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="642" SaleID="SaleTermA" POIID="POITerm1" />
    <PaymentResponse>
        <Response Result="Failure" ErrorCondition="Aborted">
            <AdditionalResponse>Service Aborted from: SaleTermA - MessageID: 498
            </AdditionalResponse>
        </Response>
        <SaleData>
            <SaleTransactionID TransactionID="579" TimeStamp="2009-06-
09T23:12:42.4+01:00" />
        </SaleData>
        <POIData POIReconciliationID="200906091">
            <POITransactionID TransactionID="481" TimeStamp="2009-06-
09T23:15:12.4+01:00" />
        </POIData>
        <PaymentResult PaymentType="Normal">
            <AmountsResp AuthorizedAmount="104.11" />
        </PaymentResult>
    </PaymentResponse>
</SaleToPOIResponse>
```

REVERSAL

Request

ReversalRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Reversal
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
ReversalRequest	[1..1]		
SaleReferenceID	[0..1]	R	If payment reservation reversal
OriginalPOITransaction	[1..1]		
SaleID	[0..1]		default MessageHeader.SaleID
POIID	[0..1]		default MessageHeader.POIID
POITransactionID	[0..1]		Identification of the Loyalty/Payment to reverse
TransactionID	[1..1]		
TimeStamp	[1..1]		
CustomerLanguage	[0..1]		Customer language of the original transaction, if not the POI default language.
AcquirerID	[0..1]		If several Acquirers, acquirer used for the original transaction.
AmountValue	[0..1]		Present only if POITransactionID absent.
ReversedAmount	[0..1]		ReversedAmount is implicitely the AuthorizedAmount if absent.
ReversalReason	[1..1]		- CustCancel (Customer cancellation) - MerchantCancel (Cashier cancellation) - Malfunction (Suspected malfunction) - Unable2Compl (Card acceptor device unable to complete transaction)
CustomerOrderID	[0..1]		If the reversal is performed inside a customer order.

⚠ **The POS must send the message with the ORIGINAL** `POITransactionID.TimeStamp` **and** `TransactionID` **provided in the payment response for the original request.**

Example

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="8716631666"
        MessageType="Request" MessageCategory="Reversal" MessageClass="Service"
/>
    <ReversalRequest ReversalReason="MerchantCancel">
        <OriginalPOITransaction>
            <POITransactionID TimeStamp="2013-11-20T15:00:51.000-05:00"
TransactionID="000020" />
        </OriginalPOITransaction>
    </ReversalRequest>
</SaleToPOIRequest>
```

Response

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="8716631666"
        MessageType="Request" MessageCategory="Reversal" MessageClass="Service"
```

ReversalResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Reversal
MessageType	[1..1]		Response
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
ReversalResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		Success Failure
ErrorCondition	[0..1]		*same as PaymentResponse*
AdditionalResponse	[0..1]		*same as PaymentResponse*
POIData	[0..1]		If Result is Success
POITransactionID	[1..1]		Identification of the reversal transaction for the POI
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIReconciliationID	[0..1]		If Result is Success
OriginalPOITransaction	[0..1]		Present if POITransactionID absent in the request, otherwise absent.
SaleID	[0..1]		default MessageHeader.SaleID
POIID	[0..1]		default MessageHeader.POIID
POITransactionID	[0..1]		Identification of the original Loyalty/Payment transaction.
TransactionID	[1..1]		
TimeStamp	[1..1]		
ReversedAmount	[0..1]		Copy if present in the request
CustomerOrder	[0..1]		If the reversal is performed inside a customer order.
CustomerOrderID	[1..1]		
ClosedOrderFlag	[0..1]		default "false"

ReversalResponse Component	Mult.	Profile	Rule
StartDate	[1..1]		
EndDate	[0..1]		If ClosedOrderFlag = "true".
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AccessedBy	[0..1]		If order process in progress.
AdditionalInformation	[0..1]		
PaymentReceipt	[0..2]		If Basic profile implementation with no printer on the POI.
DocumentQualifier	[1..1]		SaleReceipt or CashierReceipt
IntegratedPrintFlag	[0..1]		same as PrintRequest
RequiredSignatureFlag	[0..1]		default false.
OutputContent	[1..1]		
OutputFormat	[1..1]		Text, XHTML
OutputText	[0..n]		same as Display
Text	[1..1]		same as Display
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display
CharacterWidth	[0..1]		same as Display
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display
Alignment	[0..1]		same as Display
EndOfLineFlag	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display

Example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Reversal"
MessageType="Response"
        ServiceID="8716631666" SaleID="SaleTermA" POIID="POITerm1" />
    <ReversalResponse>
        <Response Result="Success" />
        <POIData POIReconciliationID="200903101">
            <POITransactionID TransactionID="000020" TimeStamp="2013-11-
20T15:03:07.000-05:00" />
        </POIData>
    </ReversalResponse>
</SaleToPOIResponse>
```

REFUND

The message is a payment message, but with a `PaymentType = "Refund"`

Request

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Reversal"
MessageType="Response"
        ServiceID="8716631666" SaleID="SaleTermA" POIID="POITerm1" />
    <ReversalResponse>
        <Response Result="Success" />
        <POIData POIReconciliationID="200903101">
            <POITransactionID TransactionID="000020" TimeStamp="2013-11-
20T15:03:07.000-05:00" />
        </POIData>
    </ReversalResponse>
</SaleToPOIResponse>
```

PaymentRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
PaymentRequest	[1..1]		
SaleData	[1..1]		
OperatorID	[0..1]		if different from the Login and *see Login .SaleData*
OperatorLanguage	[0..1]		if different from the Login
ShiftNumber	[0..1]		if different from the Login and *see Login .SaleData*
SaleTransactionID	[1..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
SaleReferenceID	[0..1]	R	Mandatory if payment reservation
SaleTerminalData	[0..1]		If content is not empty
TerminalEnvironment	[0..1]		If modified since the login
SaleCapabilities	[0..1]		If modified since the login (devices failures)
TotalsGroupID	[0..1]		if modified since, or not in the login and used by the Sale System
TokenRequestedType	[0..1]		If a token is requested.
CustomerOrderID	[0..1]		If the payment is related to an open customer order.
CustomerOrderReq	[0..1]		If customer orders must be listed in the response message.
SaleToPOIData	[0..1]		Stored with the transaction
SaleToAcquirerData	[0..1]		Send to the Acquirer if present
SaleToIssuerData	[0..1]		Send to the Acquirer if present
StatementReference	[0..1]		Information to print on the bank statement
PaymentTransaction	[1..1]		
AmountsReq	[1..1]		
Currency	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
RequestedAmount	[0..1]	mandatory if not O	The value has to be greater than 0.
CashBackAmount	[0..1]	O	If payment with cash back requested by the Sale System.
TipAmount	[0..1]		If payment with tip requested by the Sale System.
PaidAmount	[0..1]		if SplitPaymentFlag is true
MinimumAmountToDeliver	[0..1]	O	if unknown maximum amount for a OneTimeReservation or minimum amount requested by the Sale System
MaximumCashBackAmount	[0..1]		Maximum amount which could be requested for cash-back to the Sale System.
MinimumSplitAmount	[0..1]		Minimum amount of a split, which could be requested.
OriginalPOITransaction	[0..1]	BOR	In case of voice authorisation (referral).
POITransactionID	[0..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIID	[0..1]		If original transaction is coming from another POI
ReuseCardDataFlag	[0..1]	BOR	false
ApprovalCode	[0..1]		If referral
TransactionConditions	[0..1]		If one data element is present
AllowedPaymentBrand	[0..n]		Restrict brand if present
AcquirerID	[0..n]		Restrict to these Acquirer if present
DebitPreferredFlag	[0..1]		default false The preferred type of payment is a debit transaction rather than a credit transaction.
AllowedLoyaltyBrand	[0..n]	L	Restrict brand if present
LoyaltyHandling	[0..1]	L	default Forbidden
CustomerLanguage	[0..1]		If the language is selected by the Customer on the Sale System before the request to the POI.
ForceOnlineFlag	[0..1]		default false. Go online if data sent
ForceEntryMode	[0..n]		Restrict entry mode if sent and no PaymentData or LoyaltyData.CardAcquisitionReference
MerchantCategoryCode	[0..1]		The payment implies a specific MCC.
SaleItem	[0..n]	S L	If purchased products are required for the payment or loyalty

PaymentRequest Component	Mult.	Profile	Rule
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitOfMeasure	[0..1]		
Quantity	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitPrice	[0..1]		
ItemAmount	[1..1]		
TaxCode	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
SaleChannel	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
ProductLabel	[0..1]		
AdditionalProductInfo	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
PaymentData	[0..1]		If one data element is present
PaymentType	[0..1]		Refund
SplitPaymentFlag	[0..1]		Default false if split of the amount with possible fleet cards.
RequestedValidityDate	[0..1]	OR	If time period of the OneTimeReservation, FirstReservation or UpdateReservation is requested
CardAcquisitionReference	[0..1]	E	if the card data comes from the previous CardAcquisition
TransactionID	[1..1]		
TimeStamp	[1..1]		
Instalment	[0..1]		If PaymentType is "Instalment" or "IssuerInstalment"
InstalmentType	[0..1]		
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		

PaymentRequest Component	Mult.	Profile	Rule
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CustomerOrder	[0..1]		If a customer orders has to be created.
CustomerOrderID	[1..1]		
StartDate	[1..1]		
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AdditionalInformation	[0..1]		
PaymentInstrumentData	[0..1]		If payment instrument data is read by the Sale System
PaymentInstrumentType	[1..1]		
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
CardData	[0..1]		If PaymentInstrumentType is "Card"
EntryMode	[1..1]		not (ICC or SynchronousICC)
SensitiveCardData	[0..1]		If structure non empty (could be CMS protected EnvelopedData)
PAN	[0..1]		if EntryMode is File, Keyed or Manual
CardSeqNumb	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
ExpiryDate	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
TrackData	[0..3]		if EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData
SensitiveMobileData	[0..1]		If unprotected mobile data
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		
IdentificationType	[1..1]		
StoredValueID	[1..1]		
LoyaltyData	[0..n]	L	Loyalty cards used with the payment transaction and read by the Sale System
CardAcquisitionReference	[0..1]	E	see Loyalty request
TransactionID	[1..1]		
TimeStamp	[1..1]		
LoyaltyAccountID	[0..1]		see Loyalty request

PaymentRequest Component	Mult.	Profile	Rule
EntryMode	[1..1]		
IdentificationType	[1..1]		
LoyaltyID	[1..1]		
LoyaltyAmount	[0..1]		When the Sale System want to make an additional award the Loyalty account
LoyaltyUnit	[0..1]		see Loyalty request
Currency	[0..1]		see Loyalty request
AmountValue	[1..1]		

Response

PaymentRequest Component	Mult.	Profile	Rule
EntryMode	[1..1]		
IdentificationType	[1..1]		

PaymentResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
PaymentResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		Success Failure
ErrorCondition	[0..1]		If Result is not Success, or on warning condition
AdditionalResponse	[0..1]		If present, the POI logs it for further examination
SaleData	[1..1]		
SaleTransactionID	[1..1]		Copy
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIData	[1..1]		
POITransactionID	[1..1]		
TransactionID	[1..1]		Identification of the transaction for the POI
TimeStamp	[1..1]		Date time of the payment request
POIReconciliationID	[0..1]		If Result is Success or Partial
PaymentResult	[0..1]		If one data element is present
PaymentType	[0..1]		Copy, default Normal
PaymentInstrumentData	[0..1]		If a payment instrument is analyzed by the POI.
PaymentInstrumentType	[1..1]		
CardData	[0..1]		If PaymentInstrumentType is "Card"
PaymentBrand	[0..1]		If card PAN is readable

PaymentResponse Component	Mult.	Profile	Rule
MaskedPAN	[0..1]		If required for the card, instead of clear PAN
PaymentAccountRef	[0..1]		Mandatory if available.
EntryMode	[1..1]		Copy if present in the request
CardCountryCode	[0..1]		If available in the card
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
SensitiveCardData	[0..1]		If structure non empty (unprotected)
PAN	[0..1]		If card PAN is readable
CardSeqNumb	[0..1]		If data available on the card
ExpiryDate	[0..1]		If data available on the card
TrackData	[0..4]		if configured to be sent, and EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
AllowedProductCode	[0..n]	SLOR	If ErrorCondition is "PaymentRestriction" (some products are not payable by the payment card)
PaymentToken	[0..1]		If a payment token has been requested in the request message, or in the Login request for the session.
TokenRequestedType	[1..1]		Copy
TokenValue	[1..1]		
ExpiryDateTime	[0..1]		
CustomerOrder	[0..n]		If the payment is related to a customer order in progress or if the list of customer orders has been requested.
CustomerOrderID	[1..1]		
ClosedOrderFlag	[0..1]		default "false"
StartDate	[1..1]		
EndDate	[0..1]		If ClosedOrderFlag = "true".
TotalAmount	[1..1]		

PaymentResponse Component	Mult.	Profile	Rule
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AccessedBy	[0..1]		If order process in progress.
AdditionalInformation	[0..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData
SensitiveMobileData	[0..1]		If unprotected mobile data

PaymentResponse Component	Mult.	Profile	Rule
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		Copy if present in the request.
IdentificationType	[1..1]		
StoredValueID	[1..1]		
AmountsResp	[0..1]		If Result is Success or Partial
Currency	[0..1]		Mandatory for currency conversion.
AuthorizedAmount	[1..1]		
TotalRebatesAmount	[0..1]	L	If rebate on the total amount or rebate on individual products
TotalFeesAmount	[0..1]	S	If fees to be charged from a financial service
CashBackAmount	[0..1]	S	If cashback service was performed with the payment
TipAmount	[0..1]		If payment with tip is configured on the POI c Sale System.
Instalment	[0..1]		Absent if PaymentType is not "IssuerInstalment"
InstalmentType	[0..1]		Copy
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".

PaymentResponse Component	Mult.	Profile	Rule
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CurrencyConversion	[0..n]		
CustomerApprovedFlag	[0..1]		Default true
ConvertedAmount	[1..1]		
AmountValue	[1..1]		
Currency	[1..1]		
Rate	[0..1]		Conversion rate of the target currency against the source currency.
Markup	[0..1]		Markup of the conversion.
Commission	[0..1]		Commission of the conversion.
Declaration	[0..1]		A declaration has to be presented to the customer.
MerchantOverrideFlag	[0..1]		default "false" If payment forced by the Cashier.
CapturedSignature	[0..1]		If handwritten signature is captured on the POI by a signature capture device.
AreaSize	[0..1]		
SignaturePoint	[1..n]		
X	[1..1]		
Y	[1..1]		
ProtectedSignature	[0..1]		Encrypted handwritten signature captured on the POI by a signature capture device.
CustomerLanguage	[0..1]		If the customer language is different from the default language or different from the CustomerLanguage of the PaymentRequest if any.
OnlineFlag	[0..1]		default "true" "true" if the payment transaction processing has required the approval of a host.

PaymentResponse Component	Mult.	Profile	Rule
AuthenticationMethod	[0..1]		Methods for customer authentication.
ValidityDate	[0..1]	OR	If OneTimeReservation, FirstReservation or UpdateReservation and Result is Success
PaymentAcquirerData	[0..1]		If card is analysed and data available
AcquirerID	[0..1]		If several Acquirers
MerchantID	[1..1]		
AcquirerPOIID	[1..1]		
AcquirerTransactionID	[0..1]		If provided by the Acquirer and different from the POITransactionID.
TransactionID	[1..1]		
TimeStamp	[1..1]		
ApprovalCode	[0..1]		If available
HostReconciliationID	[0..1]		If provided by the Acquirer
LoyaltyResult	[0..n]	L	Loyalty cards used with the payment transaction. First the loyalty account present in the request in the same order if any.
LoyaltyAccount	[1..1]		
LoyaltyAccountID	[1..1]		
EntryMode	[1..1]		
IdentificationType	[1..1]		
IdentificationSupport	[1..1]		
LoyaltyID	[1..1]		
LoyaltyBrand	[0..1]		see Loyalty response
CurrentBalance	[0..1]		see Loyalty response
LoyaltyAmount	[0..1]		see Loyalty response
LoyaltyUnit	[0..1]		see Loyalty response
Currency	[0..1]		see Loyalty response
AmountValue	[1..1]		
LoyaltyAcquirerData	[0..1]		see Loyalty response
LoyaltyAcquirerID	[0..1]		see Loyalty response

PaymentResponse Component	Mult.	Profile	Rule
ApprovalCode	[0..1]		see Loyalty response
LoyaltyTransactionID	[0..1]		see Loyalty response
TransactionID	[1..1]		
TimeStamp	[1..1]		
HostReconciliationID	[0..1]		see Loyalty response
Rebates	[0..1]		see Loyalty response
TotalRebate	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
SaleItemRebate	[0..n]		see Loyalty response
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		if present in the related SaleItem
UnitOfMeasure	[0..1]		see Loyalty response
Quantity	[0..1]		see Loyalty response
ItemAmount	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
PaymentReceipt	[0..2]		If Basic profile implementation with no printer on the POI.
DocumentQualifier	[1..1]		SaleReceipt or CashierReceipt
IntegratedPrintFlag	[0..1]		same as PrintRequest
RequiredSignatureFlag	[0..1]		default false.
OutputContent	[1..1]		
OutputFormat	[1..1]		Text, XHTML
OutputText	[0..n]		same as Display
Text	[1..1]		same as Display
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display
CharacterWidth	[0..1]		same as Display

PaymentResponse Component	Mult.	Profile	Rule
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display
Alignment	[0..1]		same as Display
EndOfLineFlag	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display

Message example

Request

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="8716631666"
        MessageType="Request" MessageCategory="Payment" MessageClass="Service"
/>
    <PaymentRequest>
        <SaleData>
            <SaleTransactionID TimeStamp="2013-11-20T15:02:02.718-05:00"
                TransactionID="4368539766" />
        </SaleData>
        <PaymentTransaction>
            <AmountsReq RequestedAmount="11.00" Currency="EUR" />
        </PaymentTransaction>
        <PaymentData PaymentType="Refund" />
    </PaymentRequest>
</SaleToPOIRequest>
```

Response

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="8716631666" SaleID="SaleTermA" POIID="POITerminal1" />
    <PaymentResponse>
        <Response Result="Success" />
        <SaleData>
            <SaleTransactionID TimeStamp="2013-11-20T15:02:02.718-05:00"
                TransactionID="4368539766" />
        </SaleData>
        <POIData>
            <POITransactionID TransactionID="000021" TimeStamp="2013-11-
20T15:01:23-05:00" />
        </POIData>
        <PaymentResult PaymentType="Refund">
            <AmountsResp AuthorizedAmount="11.00" />
```

```
        </PaymentResult>
      </PaymentResponse>
  </SaleToPOIResponse>
```

FIRST RESERVATION

The message is a payment message, but with a `PaymentType = "FirstReservation"`

Request

PaymentRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
PaymentRequest	[1..1]		
SaleData	[1..1]		
OperatorID	[0..1]		if different from the Login and *see Login .SaleData*
OperatorLanguage	[0..1]		if different from the Login
ShiftNumber	[0..1]		if different from the Login and *see Login .SaleData*
SaleTransactionID	[1..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
SaleReferenceID	[1..1]		
SaleTerminalData	[0..1]		If content is not empty
TerminalEnvironment	[0..1]		If modified since the login
SaleCapabilities	[0..1]		If modified since the login (devices failures)
TotalsGroupID	[0..1]		if modified since, or not in the login and used by the Sale System
TokenRequestedType	[0..1]		If a token is requested.
CustomerOrderID	[0..1]		If the payment is related to an open customer order.
CustomerOrderReq	[0..1]		If customer orders must be listed in the response message.
SaleToPOIData	[0..1]		Stored with the transaction
SaleToAcquirerData	[0..1]		Send to the Acquirer if present
SaleToIssuerData	[0..1]		Send to the Acquirer if present
StatementReference	[0..1]		Information to print on the bank statement
PaymentTransaction	[1..1]		
AmountsReq	[1..1]		
Currency	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
RequestedAmount	[0..1]	mandatory if not O	The value has to be greater than 0.
CashBackAmount	[0..1]	O	If payment with cash back requested by the Sale System.
TipAmount	[0..1]		If payment with tip requested by the Sale System.
PaidAmount	[0..1]		if SplitPaymentFlag is true
MinimumAmountToDeliver	[0..1]	O	if unknown maximum amount for a OneTimeReservation or minimum amount requested by the Sale System
MaximumCashBackAmount	[0..1]		Maximum amount which could be requested for cash-back to the Sale System.
MinimumSplitAmount	[0..1]		Minimum amount of a split, which could be requested.
OriginalPOITransaction	[0..1]	*B*OR	In case of voice authorisation (referral).
POITransactionID	[0..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIID	[0..1]		If original transaction is coming from another POI
ReuseCardDataFlag	[0..1]	*B*OR	false
ApprovalCode	[0..1]		If referral
TransactionConditions	[0..1]		If one data element is present
AllowedPaymentBrand	[0..n]		Restrict brand if present
AcquirerID	[0..n]		Restrict to these Acquirer if present
DebitPreferredFlag	[0..1]		default false The preferred type of payment is a debit transaction rather than a credit transaction.
AllowedLoyaltyBrand	[0..n]	L	Restrict brand if present
LoyaltyHandling	[0..1]	L	default Forbidden
CustomerLanguage	[0..1]		If the language is selected by the Customer on the Sale System before the request to the POI.
ForceOnlineFlag	[0..1]		default false. Go online if data sent
ForceEntryMode	[0..n]		Restrict entry mode if sent and no PaymentData or LoyaltyData.CardAcquisitionReference
MerchantCategoryCode	[0..1]		The payment implies a specific MCC.
SaleItem	[0..n]	*S* L	If purchased products are required for the payment or loyalty

PaymentRequest Component	Mult.	Profile	Rule
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitOfMeasure	[0..1]		
Quantity	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitPrice	[0..1]		
ItemAmount	[1..1]		
TaxCode	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
SaleChannel	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
ProductLabel	[0..1]		
AdditionalProductInfo	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
PaymentData	[0..1]		If one data element is present
PaymentType	[0..1]		FirstReservation
SplitPaymentFlag	[0..1]		Default false if split of the amount with possible fleet cards.
RequestedValidityDate	[0..1]	OR	If time period of the OneTimeReservation, FirstReservation or UpdateReservation is requested
CardAcquisitionReference	[0..1]	E	if the card data comes from the previous CardAcquisition
TransactionID	[1..1]		
TimeStamp	[1..1]		
Instalment	[0..1]		If PaymentType is "Instalment" or "IssuerInstalment"
InstalmentType	[0..1]		
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		

PaymentRequest Component	Mult.	Profile	Rule
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CustomerOrder	[0..1]		If a customer orders has to be created.
CustomerOrderID	[1..1]		
StartDate	[1..1]		
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AdditionalInformation	[0..1]		
PaymentInstrumentData	[0..1]		If payment instrument data is read by the Sale System
PaymentInstrumentType	[1..1]		
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
CardData	[0..1]		If PaymentInstrumentType is "Card"
EntryMode	[1..1]		not (ICC or SynchronousICC)
SensitiveCardData	[0..1]		If structure non empty (could be CMS protected EnvelopedData)
PAN	[0..1]		if EntryMode is File, Keyed or Manual
CardSeqNumb	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
ExpiryDate	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
TrackData	[0..3]		if EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData
SensitiveMobileData	[0..1]		If unprotected mobile data
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		
IdentificationType	[1..1]		
StoredValueID	[1..1]		
LoyaltyData	[0..n]	L	Loyalty cards used with the payment transaction and read by the Sale System
CardAcquisitionReference	[0..1]	E	see Loyalty request
TransactionID	[1..1]		
TimeStamp	[1..1]		
LoyaltyAccountID	[0..1]		see Loyalty request

PaymentRequest Component	Mult.	Profile	Rule
EntryMode	[1..1]		
IdentificationType	[1..1]		
LoyaltyID	[1..1]		
LoyaltyAmount	[0..1]		When the Sale System want to make an additional award the Loyalty account
LoyaltyUnit	[0..1]		see Loyalty request
Currency	[0..1]		see Loyalty request
AmountValue	[1..1]		

Response

PaymentResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
PaymentResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		Success Failure
ErrorCondition	[0..1]		If Result is not Success, or on warning condition
AdditionalResponse	[0..1]		If present, the POI logs it for further examination
SaleData	[1..1]		
SaleReferenceID	[1..1]		Copy
SaleTransactionID	[1..1]		Copy
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIData	[1..1]		
POITransactionID	[1..1]		
TransactionID	[1..1]		Identification of the transaction for the POI
TimeStamp	[1..1]		Date time of the payment request
POIReconciliationID	[0..1]		If Result is Success or Partial
PaymentResult	[0..1]		If one data element is present
PaymentType	[0..1]		FirstReservation
PaymentInstrumentData	[0..1]		If a payment instrument is analysed by the POI.
PaymentInstrumentType	[1..1]		
CardData	[0..1]		If PaymentInstrumentType is "Card"

PaymentResponse Component	Mult.	Profile	Rule
PaymentBrand	[0..1]		If card PAN is readable
MaskedPAN	[0..1]		If required for the card, instead of clear PAN
PaymentAccountRef	[0..1]		Mandatory if available.
EntryMode	[1..1]		Copy if present in the request
CardCountryCode	[0..1]		If available in the card
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
SensitiveCardData	[0..1]		If structure non empty (unprotected)
PAN	[0..1]		If card PAN is readable
CardSeqNumb	[0..1]		If data available on the card
ExpiryDate	[0..1]		If data available on the card
TrackData	[0..4]		if configured to be sent, and EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
AllowedProductCode	[0..n]	*SLOR*	If ErrorCondition is "PaymentRestriction" (some products are not payable by the payment card)
PaymentToken	[0..1]		If a payment token has been requested in the request message, or in the Login request for the session.
TokenRequestedType	[1..1]		Copy
TokenValue	[1..1]		
ExpiryDateTime	[0..1]		
CustomerOrder	[0..n]		If the payment is related to a customer order in progress or if the list of customer orders has been requested.
CustomerOrderID	[1..1]		
ClosedOrderFlag	[0..1]		default "false"
StartDate	[1..1]		
EndDate	[0..1]		If ClosedOrderFlag = "true".

PaymentResponse Component	Mult.	Profile	Rule
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AccessedBy	[0..1]		If order process in progress.
AdditionalInformation	[0..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData

PaymentResponse Component	Mult.	Profile	Rule
SensitiveMobileData	[0..1]		If unprotected mobile data
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		Copy if present in the request.
IdentificationType	[1..1]		
StoredValueID	[1..1]		
AmountsResp	[0..1]		If Result is Success or Partial
Currency	[0..1]		Mandatory for currency conversion.
AuthorizedAmount	[1..1]		
TotalRebatesAmount	[0..1]	L	If rebate on the total amount or rebate on individual products
TotalFeesAmount	[0..1]	S	If fees to be charged from a financial service
CashBackAmount	[0..1]	*S*	If cashback service was performed with the payment
TipAmount	[0..1]		If payment with tip is configured on the POI c Sale System.
Instalment	[0..1]		Absent if PaymentType is not "IssuerInstalment"
InstalmentType	[0..1]		Copy
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		

PaymentResponse Component	Mult.	Profile	Rule
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CurrencyConversion	[0..n]		
CustomerApprovedFlag	[0..1]		Default true
ConvertedAmount	[1..1]		
AmountValue	[1..1]		
Currency	[1..1]		
Rate	[0..1]		Conversion rate of the target currency against the source currency.
Markup	[0..1]		Markup of the conversion.
Commission	[0..1]		Commission of the conversion.
Declaration	[0..1]		A declaration has to be presented to the customer.
MerchantOverrideFlag	[0..1]		default "false" If payment forced by the Cashier.
CapturedSignature	[0..1]		If handwritten signature is captured on the POI by a signature capture device.
AreaSize	[0..1]		
SignaturePoint	[1..n]		
X	[1..1]		
Y	[1..1]		
ProtectedSignature	[0..1]		Encrypted handwritten signature captured on the POI by a signature capture device.
CustomerLanguage	[0..1]		If the customer language is different from the default language or different from the CustomerLanguage of the PaymentRequest if any.

PaymentResponse Component	Mult.	Profile	Rule
OnlineFlag	[0..1]		default "true" "true" if the payment transaction processing has required the approval of a host.
AuthenticationMethod	[0..1]		Methods for customer authentication.
ValidityDate	[1..1]		
PaymentAcquirerData	[0..1]		If card is analysed and data available
AcquirerID	[0..1]		If several Acquirers
MerchantID	[1..1]		
AcquirerPOIID	[1..1]		
AcquirerTransactionID	[0..1]		If provided by the Acquirer and different from the POITransactionID.
TransactionID	[1..1]		
TimeStamp	[1..1]		
ApprovalCode	[0..1]		If available
HostReconciliationID	[0..1]		If provided by the Acquirer
LoyaltyResult	[0..n]	L	Loyalty cards used with the payment transaction. First the loyalty account present in the request in the same order if any.
LoyaltyAccount	[1..1]		
LoyaltyAccountID	[1..1]		
EntryMode	[1..1]		
IdentificationType	[1..1]		
IdentificationSupport	[1..1]		
LoyaltyID	[1..1]		
LoyaltyBrand	[0..1]		see Loyalty response
CurrentBalance	[0..1]		see Loyalty response
LoyaltyAmount	[0..1]		see Loyalty response
LoyaltyUnit	[0..1]		see Loyalty response
Currency	[0..1]		see Loyalty response
AmountValue	[1..1]		
LoyaltyAcquirerData	[0..1]		see Loyalty response

PaymentResponse Component	Mult.	Profile	Rule
LoyaltyAcquirerID	[0..1]		see Loyalty response
ApprovalCode	[0..1]		see Loyalty response
LoyaltyTransactionID	[0..1]		see Loyalty response
TransactionID	[1..1]		
TimeStamp	[1..1]		
HostReconciliationID	[0..1]		see Loyalty response
Rebates	[0..1]		see Loyalty response
TotalRebate	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
SaleItemRebate	[0..n]		see Loyalty response
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		if present in the related SaleItem
UnitOfMeasure	[0..1]		see Loyalty response
Quantity	[0..1]		see Loyalty response
ItemAmount	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
PaymentReceipt	[0..2]		If Basic profile implementation with no printer on the POI.
DocumentQualifier	[1..1]		SaleReceipt or CashierReceipt
IntegratedPrintFlag	[0..1]		same as PrintRequest
RequiredSignatureFlag	[0..1]		default false.
OutputContent	[1..1]		
OutputFormat	[1..1]		Text, XHTML
OutputText	[0..n]		same as Display
Text	[1..1]		same as Display
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display

PaymentResponse Component	Mult.	Profile	Rule
CharacterWidth	[0..1]		same as Display
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display
Alignment	[0..1]		same as Display
EndOfLineFlag	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display

Message example

Request

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageCategory="Payment" MessageClass="Service"
MessageType="Request" POIID="
0000003952" SaleID="SaleTermA" ServiceID="647" />
    <PaymentRequest>
        <SaleData OperatorLanguage="fr" SaleReferenceID="0123456789ABCDEF">
            <SaleTransactionID TimeStamp="2021-04-16T14:30:27.285-04:00"
TransactionID="94884" />
        </SaleData>
        <PaymentTransaction>
            <AmountsReq Currency="EUR" RequestedAmount="100.00" />
        </PaymentTransaction>
        <PaymentData PaymentType="FirstReservation" SplitPaymentFlag="false" />
    </PaymentRequest>
</SaleToPOIRequest>
```

Response

On success

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="647" SaleID="SaleTermA" POIID="0000003952" />
    <PaymentResponse>
        <Response Result="Success" />
        <SaleData SaleReferenceID="0123456789ABCDEF">
            <SaleTransactionID TransactionID="94884" TimeStamp="2021-04-
16T14:30:27.285-04:00" />
        </SaleData>
        <POIData POIReconciliationID="1">
```

```
                <POITransactionID TransactionID="001360" TimeStamp="2021-04-
16T20:30:26.000+02:00" />
        </POIData>
        <PaymentResult PaymentType="FirstReservation" ValidityDate="2021-05-
16T20:30:26.000+02:00">
            <PaymentInstrumentData PaymentInstrumentType="Card">
                <CardData PaymentBrand="CB" EntryMode="Contactless"
MaskedPAN="XXXXXXXXXXX6131" />
            </PaymentInstrumentData>
            <AmountsResp AuthorizedAmount="100.00" />
            <PaymentAcquirerData MerchantID="30004143 " AcquirerID="51328310278"
                AcquirerPOIID="00000005" />
        </PaymentResult>
    </PaymentResponse>
</SaleToPOIResponse>
```

On Failure

```
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="642" SaleID="SaleTermA" POIID="POITerm1" />
    <PaymentResponse>
        <Response Result="Failure" ErrorCondition="NotAllowed">
            <AdditionalResponse>SaleReferenceID: NotAllowed - Value:
0123456789ABCDEF - Reason:
                existing reservation with this value
            </AdditionalResponse>
        </Response>
        <SaleData SaleReferenceID="0123456789ABCDEF">
            <SaleTransactionID TransactionID="94884" TimeStamp="2021-04-
16T14:30:27.285-04:00" />
        </SaleData>
        <POIData>
            <POITransactionID TransactionID="001360" TimeStamp="2021-04-
16T20:30:26.000+02:00" />
        </POIData>
        <PaymentResult PaymentType="FirstReservation"></PaymentResult>
    </PaymentResponse>
</SaleToPOIResponse>
```

UPDATE RESERVATION

The message is a payment message, but with a `PaymentType = "UpdateReservation"`

Request

PaymentRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
PaymentRequest	[1..1]		
SaleData	[1..1]		
OperatorID	[0..1]		if different from the Login and *see Login .SaleData*
OperatorLanguage	[0..1]		if different from the Login
ShiftNumber	[0..1]		if different from the Login and *see Login .SaleData*
SaleTransactionID	[1..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
SaleReferenceID	[1..1]		
SaleTerminalData	[0..1]		If content is not empty
TerminalEnvironment	[0..1]		If modified since the login
SaleCapabilities	[0..1]		If modified since the login (devices failures)
TotalsGroupID	[0..1]		if modified since, or not in the login and used by the Sale System
TokenRequestedType	[0..1]		If a token is requested.
CustomerOrderID	[0..1]		If the payment is related to an open customer order.
CustomerOrderReq	[0..1]		If customer orders must be listed in the response message.
SaleToPOIData	[0..1]		Stored with the transaction
SaleToAcquirerData	[0..1]		Send to the Acquirer if present
SaleToIssuerData	[0..1]		Send to the Acquirer if present
StatementReference	[0..1]		Information to print on the bank statement
PaymentTransaction	[1..1]		
AmountsReq	[1..1]		
Currency	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
RequestedAmount	[0..1]	mandatory if not O	The value has to be greater than 0.
CashBackAmount	[0..1]	O	If payment with cash back requested by the Sale System.
TipAmount	[0..1]		If payment with tip requested by the Sale System.
PaidAmount	[0..1]		if SplitPaymentFlag is true
MinimumAmountToDeliver	[0..1]	O	if unknown maximum amount for a OneTimeReservation or minimum amount requested by the Sale System
MaximumCashBackAmount	[0..1]		Maximum amount which could be requested for cash-back to the Sale System.
MinimumSplitAmount	[0..1]		Minimum amount of a split, which could be requested.
OriginalPOITransaction	[1..1]		
POITransactionID	[1..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIID	[0..1]		If original transaction is coming from another POI
ReuseCardDataFlag	[0..1]	*B*OR	false
ApprovalCode	[0..1]		If referral
TransactionConditions	[0..1]		If one data element is present
AllowedPaymentBrand	[0..n]		Restrict brand if present
AcquirerID	[0..n]		Restrict to these Acquirer if present
DebitPreferredFlag	[0..1]		default false The preferred type of payment is a debit transaction rather than a credit transaction.
AllowedLoyaltyBrand	[0..n]	L	Restrict brand if present
LoyaltyHandling	[0..1]	L	default Forbidden
CustomerLanguage	[0..1]		If the language is selected by the Customer on the Sale System before the request to the POI.
ForceOnlineFlag	[0..1]		default false. Go online if data sent
ForceEntryMode	[0..n]		Restrict entry mode if sent and no PaymentData or LoyaltyData.CardAcquisitionReference
MerchantCategoryCode	[0..1]		The payment implies a specific MCC.
SaleItem	[0..n]	*S* L	If purchased products are required for the payment or loyalty

PaymentRequest Component	Mult.	Profile	Rule
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitOfMeasure	[0..1]		
Quantity	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitPrice	[0..1]		
ItemAmount	[1..1]		
TaxCode	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
SaleChannel	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
ProductLabel	[0..1]		
AdditionalProductInfo	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
PaymentData	[0..1]		If one data element is present
PaymentType	[0..1]		UpdateReservation
SplitPaymentFlag	[0..1]		Default false if split of the amount with possible fleet cards.
RequestedValidityDate	[0..1]	OR	If time period of the OneTimeReservation, FirstReservation or UpdateReservation is requested
CardAcquisitionReference	[0..1]	E	if the card data comes from the previous CardAcquisition
TransactionID	[1..1]		
TimeStamp	[1..1]		
Instalment	[0..1]		If PaymentType is "Instalment" or "IssuerInstalment"
InstalmentType	[0..1]		
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		

PaymentRequest Component	Mult.	Profile	Rule
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CustomerOrder	[0..1]		If a customer orders has to be created.
CustomerOrderID	[1..1]		
StartDate	[1..1]		
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AdditionalInformation	[0..1]		
PaymentInstrumentData	[0..1]		If payment instrument data is read by the Sale System
PaymentInstrumentType	[1..1]		
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
CardData	[0..1]		If PaymentInstrumentType is "Card"
EntryMode	[1..1]		not (ICC or SynchronousICC)
SensitiveCardData	[0..1]		If structure non empty (could be CMS protected EnvelopedData)
PAN	[0..1]		if EntryMode is File, Keyed or Manual
CardSeqNumb	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
ExpiryDate	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
TrackData	[0..3]		if EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData
SensitiveMobileData	[0..1]		If unprotected mobile data
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		
IdentificationType	[1..1]		
StoredValueID	[1..1]		
LoyaltyData	[0..n]	L	Loyalty cards used with the payment transaction and read by the Sale System
CardAcquisitionReference	[0..1]	E	see Loyalty request
TransactionID	[1..1]		
TimeStamp	[1..1]		
LoyaltyAccountID	[0..1]		see Loyalty request

PaymentRequest Component	Mult.	Profile	Rule
EntryMode	[1..1]		
IdentificationType	[1..1]		
LoyaltyID	[1..1]		
LoyaltyAmount	[0..1]		When the Sale System want to make an additional award the Loyalty account
LoyaltyUnit	[0..1]		see Loyalty request
Currency	[0..1]		see Loyalty request
AmountValue	[1..1]		

Response

	Mult.	Profile	
EntryMode	[1..1]		
IdentificationType	[1..1]		
LoyaltyID	[1..1]		

PaymentResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
PaymentResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		Success Failure
ErrorCondition	[0..1]		If Result is not Success, or on warning condition
AdditionalResponse	[0..1]		If present, the POI logs it for further examination
SaleData	[1..1]		
SaleReferenceID	[1..1]		Copy
SaleTransactionID	[1..1]		Copy
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIData	[1..1]		
POITransactionID	[1..1]		
TransactionID	[1..1]		Identification of the transaction for the POI
TimeStamp	[1..1]		Date time of the payment request
POIReconciliationID	[0..1]		If Result is Success or Partial
PaymentResult	[0..1]		If one data element is present
PaymentType	[0..1]		FirstReservation
PaymentInstrumentData	[0..1]		If a payment instrument is analysed by the POI.
PaymentInstrumentType	[1..1]		
CardData	[0..1]		If PaymentInstrumentType is "Card"

PaymentResponse Component	Mult.	Profile	Rule
PaymentBrand	[0..1]		If card PAN is readable
MaskedPAN	[0..1]		If required for the card, instead of clear PAN
PaymentAccountRef	[0..1]		Mandatory if available.
EntryMode	[1..1]		Copy if present in the request
CardCountryCode	[0..1]		If available in the card
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
SensitiveCardData	[0..1]		If structure non empty (unprotected)
PAN	[0..1]		If card PAN is readable
CardSeqNumb	[0..1]		If data available on the card
ExpiryDate	[0..1]		If data available on the card
TrackData	[0..4]		if configured to be sent, and EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
AllowedProductCode	[0..n]	SLOR	If ErrorCondition is "PaymentRestriction" (some products are not payable by the payment card)
PaymentToken	[0..1]		If a payment token has been requested in the request message, or in the Login request for the session.
TokenRequestedType	[1..1]		Copy
TokenValue	[1..1]		
ExpiryDateTime	[0..1]		
CustomerOrder	[0..n]		If the payment is related to a customer order in progress or if the list of customer orders has been requested.
CustomerOrderID	[1..1]		
ClosedOrderFlag	[0..1]		default "false"
StartDate	[1..1]		
EndDate	[0..1]		If ClosedOrderFlag = "true".

PaymentResponse Component	Mult.	Profile	Rule
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AccessedBy	[0..1]		If order process in progress.
AdditionalInformation	[0..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData

PaymentResponse Component	Mult.	Profile	Rule
SensitiveMobileData	[0..1]		If unprotected mobile data
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		Copy if present in the request.
IdentificationType	[1..1]		
StoredValueID	[1..1]		
AmountsResp	[0..1]		If Result is Success or Partial
Currency	[0..1]		Mandatory for currency conversion.
AuthorizedAmount	[1..1]		
TotalRebatesAmount	[0..1]	L	If rebate on the total amount or rebate on individual products
TotalFeesAmount	[0..1]	S	If fees to be charged from a financial service
CashBackAmount	[0..1]	*S*	If cashback service was performed with the payment
TipAmount	[0..1]		If payment with tip is configured on the POI c Sale System.
Instalment	[0..1]		Absent if PaymentType is not "IssuerInstalment"
InstalmentType	[0..1]		Copy
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		

PaymentResponse Component	Mult.	Profile	Rule
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CurrencyConversion	[0..n]		
CustomerApprovedFlag	[0..1]		Default true
ConvertedAmount	[1..1]		
AmountValue	[1..1]		
Currency	[1..1]		
Rate	[0..1]		Conversion rate of the target currency against the source currency.
Markup	[0..1]		Markup of the conversion.
Commission	[0..1]		Commission of the conversion.
Declaration	[0..1]		A declaration has to be presented to the customer.
MerchantOverrideFlag	[0..1]		default "false" If payment forced by the Cashier.
CapturedSignature	[0..1]		If handwritten signature is captured on the POI by a signature capture device.
AreaSize	[0..1]		
SignaturePoint	[1..n]		
X	[1..1]		
Y	[1..1]		
ProtectedSignature	[0..1]		Encrypted handwritten signature captured on the POI by a signature capture device.
CustomerLanguage	[0..1]		If the customer language is different from the default language or different from the CustomerLanguage of the PaymentRequest if any.

PaymentResponse Component	Mult.	Profile	Rule
OnlineFlag	[0..1]		default "true" "true" if the payment transaction processing has required the approval of a host.
AuthenticationMethod	[0..1]		Methods for customer authentication.
ValidityDate	[1..1]		
PaymentAcquirerData	[0..1]		If card is analysed and data available
AcquirerID	[0..1]		If several Acquirers
MerchantID	[1..1]		
AcquirerPOIID	[1..1]		
AcquirerTransactionID	[0..1]		If provided by the Acquirer and different from the POITransactionID.
TransactionID	[1..1]		
TimeStamp	[1..1]		
ApprovalCode	[0..1]		If available
HostReconciliationID	[0..1]		If provided by the Acquirer
LoyaltyResult	[0..n]	L	Loyalty cards used with the payment transaction. First the loyalty account present in the request in the same order if any.
LoyaltyAccount	[1..1]		
LoyaltyAccountID	[1..1]		
EntryMode	[1..1]		
IdentificationType	[1..1]		
IdentificationSupport	[1..1]		
LoyaltyID	[1..1]		
LoyaltyBrand	[0..1]		see Loyalty response
CurrentBalance	[0..1]		see Loyalty response
LoyaltyAmount	[0..1]		see Loyalty response
LoyaltyUnit	[0..1]		see Loyalty response
Currency	[0..1]		see Loyalty response
AmountValue	[1..1]		
LoyaltyAcquirerData	[0..1]		see Loyalty response

PaymentResponse Component	Mult.	Profile	Rule
LoyaltyAcquirerID	[0..1]		see Loyalty response
ApprovalCode	[0..1]		see Loyalty response
LoyaltyTransactionID	[0..1]		see Loyalty response
TransactionID	[1..1]		
TimeStamp	[1..1]		
HostReconciliationID	[0..1]		see Loyalty response
Rebates	[0..1]		see Loyalty response
TotalRebate	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
SaleItemRebate	[0..n]		see Loyalty response
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		if present in the related SaleItem
UnitOfMeasure	[0..1]		see Loyalty response
Quantity	[0..1]		see Loyalty response
ItemAmount	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
PaymentReceipt	[0..2]		If Basic profile implementation with no printer on the POI.
DocumentQualifier	[1..1]		SaleReceipt or CashierReceipt
IntegratedPrintFlag	[0..1]		same as PrintRequest
RequiredSignatureFlag	[0..1]		Default false.
OutputContent	[1..1]		
OutputFormat	[1..1]		Text, XHTML
OutputText	[0..n]		same as Display
Text	[1..1]		same as Display
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display

PaymentResponse Component	Mult.	Profile	Rule
CharacterWidth	[0..1]		same as Display
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display
Alignment	[0..1]		same as Display
EndOfLineFlag	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display

Message example

Request

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageCategory="Payment" MessageClass="Service"
MessageType="Request" POIID="
0000003952" SaleID="SaleTermA" ServiceID="647" />
    <PaymentRequest>
        <SaleData OperatorLanguage="fr" SaleReferenceID="0123456789ABCDEF">
            <SaleTransactionID TimeStamp="2021-04-20T14:30:27.285-04:00"
TransactionID="94890" />
        </SaleData>
        <PaymentTransaction>
            <AmountsReq Currency="EUR" RequestedAmount="150.00" />
            <OriginalPOITransaction>
                <POITransactionID TransactionID="001360" TimeStamp="2021-04-
16T20:30:26.000+02:
00" />
            </OriginalPOITransaction>
        </PaymentTransaction>
        <PaymentData PaymentType="UpdateReservation" SplitPaymentFlag="false" />
    </PaymentRequest>
</SaleToPOIRequest>
```

Response

On success

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="647" SaleID="SaleTermA" POIID="0000003952" />
    <PaymentResponse>
        <Response Result="Success" />
        <SaleData SaleReferenceID="0123456789ABCDEF">
```

```
            <SaleTransactionID TransactionID="94890" TimeStamp="2021-04-
20T14:30:27.285-04:00" />
        </SaleData>
        <POIData POIReconciliationID="1">
            <POITransactionID TransactionID="001380" TimeStamp="2021-04-
20T20:30:26.000+02:00" />
        </POIData>
        <PaymentResult PaymentType="UpdateReservation">
            <AmountsResp AuthorizedAmount="150.00" />
            <PaymentAcquirerData MerchantID="30004143 " AcquirerID="51328310278"
                AcquirerPOIID="00000005" />
        </PaymentResult>
    </PaymentResponse>
</SaleToPOIResponse>
```

On Failure

```
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="642" SaleID="SaleTermA" POIID="POITerm1" />
    <PaymentResponse>
        <Response Result="Failure" ErrorCondition="NotFound">
            <AdditionalResponse>SaleReferenceID: NotFound - Value:
0123456789ABCDEF - Reason:
                reservation does not exist
            </AdditionalResponse>
        </Response>
        <SaleData SaleReferenceID="0123456789ABCDEF">
            <SaleTransactionID TransactionID="94890" TimeStamp="2021-04-
20T14:30:27.285-04:00" />
        </SaleData>
        <POIData POIReconciliationID="1">
            <POITransactionID TransactionID="001380" TimeStamp="2021-04-
20T20:30:26.000+02:00" />
        </POIData>
        <PaymentResult PaymentType="UpdateReservation"></PaymentResult>
    </PaymentResponse>
</SaleToPOIResponse>
```

COMPLETION RESERVATION

The message is a payment message, but with a `PaymentType = "Completion"`.

Request

PaymentRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
PaymentRequest	[1..1]		
SaleData	[1..1]		
OperatorID	[0..1]		if different from the Login and *see Login .SaleData*
OperatorLanguage	[0..1]		if different from the Login
ShiftNumber	[0..1]		if different from the Login and *see Login .SaleData*
SaleTransactionID	[1..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
SaleReferenceID	[1..1]		
SaleTerminalData	[0..1]		If content is not empty
TerminalEnvironment	[0..1]		If modified since the login
SaleCapabilities	[0..1]		If modified since the login (devices failures)
TotalsGroupID	[0..1]		if modified since, or not in the login and used by the Sale System
TokenRequestedType	[0..1]		If a token is requested.
CustomerOrderID	[0..1]		If the payment is related to an open customer order.
CustomerOrderReq	[0..1]		If customer orders must be listed in the response message.
SaleToPOIData	[0..1]		Stored with the transaction
SaleToAcquirerData	[0..1]		Send to the Acquirer if present
SaleToIssuerData	[0..1]		Send to the Acquirer if present
StatementReference	[0..1]		Information to print on the bank statement
PaymentTransaction	[1..1]		
AmountsReq	[1..1]		
Currency	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
RequestedAmount	[0..1]	mandatory if not O	The value has to be greater than 0.
CashBackAmount	[0..1]	O	If payment with cash back requested by the Sale System.
TipAmount	[0..1]		If payment with tip requested by the Sale System.
PaidAmount	[0..1]		if SplitPaymentFlag is true
MinimumAmountToDeliver	[0..1]	O	if unknown maximum amount for a OneTimeReservation or minimum amount requested by the Sale System
MaximumCashBackAmount	[0..1]		Maximum amount which could be requested for cash-back to the Sale System.
MinimumSplitAmount	[0..1]		Minimum amount of a split, which could be requested.
OriginalPOITransaction	[1..1]		
POITransactionID	[1..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIID	[0..1]		If original transaction is coming from another POI
ReuseCardDataFlag	[0..1]	*B*OR	false
ApprovalCode	[0..1]		If referral
TransactionConditions	[0..1]		If one data element is present
AllowedPaymentBrand	[0..n]		Restrict brand if present
AcquirerID	[0..n]		Restrict to these Acquirer if present
DebitPreferredFlag	[0..1]		default false The preferred type of payment is a debit transaction rather than a credit transaction.
AllowedLoyaltyBrand	[0..n]	L	Restrict brand if present
LoyaltyHandling	[0..1]	L	default Forbidden
CustomerLanguage	[0..1]		If the language is selected by the Customer on the Sale System before the request to the POI.
ForceOnlineFlag	[0..1]		default false. Go online if data sent
ForceEntryMode	[0..n]		Restrict entry mode if sent and no PaymentData or LoyaltyData.CardAcquisitionReference
MerchantCategoryCode	[0..1]		The payment implies a specific MCC.
SaleItem	[0..n]	*S* L	If purchased products are required for the payment or loyalty

PaymentRequest Component	Mult.	Profile	Rule
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitOfMeasure	[0..1]		
Quantity	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitPrice	[0..1]		
ItemAmount	[1..1]		
TaxCode	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
SaleChannel	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
ProductLabel	[0..1]		
AdditionalProductInfo	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
PaymentData	[0..1]		If one data element is present
PaymentType	[0..1]		Completion
SplitPaymentFlag	[0..1]		Default false if split of the amount with possible fleet cards.
RequestedValidityDate	[0..1]	OR	If time period of the OneTimeReservation, FirstReservation or UpdateReservation is requested
CardAcquisitionReference	[0..1]	E	if the card data comes from the previous CardAcquisition
TransactionID	[1..1]		
TimeStamp	[1..1]		
Instalment	[0..1]		If PaymentType is "Instalment" or "IssuerInstalment"
InstalmentType	[0..1]		
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		

PaymentRequest Component	Mult.	Profile	Rule
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CustomerOrder	[0..1]		If a customer orders has to be created.
CustomerOrderID	[1..1]		
StartDate	[1..1]		
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AdditionalInformation	[0..1]		
PaymentInstrumentData	[0..1]		If payment instrument data is read by the Sale System
PaymentInstrumentType	[1..1]		
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
CardData	[0..1]		If PaymentInstrumentType is "Card"
EntryMode	[1..1]		not (ICC or SynchronousICC)
SensitiveCardData	[0..1]		If structure non empty (could be CMS protected EnvelopedData)
PAN	[0..1]		if EntryMode is File, Keyed or Manual
CardSeqNumb	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
ExpiryDate	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
TrackData	[0..3]		if EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData
SensitiveMobileData	[0..1]		If unprotected mobile data
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		
IdentificationType	[1..1]		
StoredValueID	[1..1]		
LoyaltyData	[0..n]	L	Loyalty cards used with the payment transaction and read by the Sale System
CardAcquisitionReference	[0..1]	E	see Loyalty request
TransactionID	[1..1]		
TimeStamp	[1..1]		
LoyaltyAccountID	[0..1]		see Loyalty request

PaymentRequest Component	Mult.	Profile	Rule
EntryMode	[1..1]		
IdentificationType	[1..1]		
LoyaltyID	[1..1]		
LoyaltyAmount	[0..1]		When the Sale System want to make an additional award the Loyalty account
LoyaltyUnit	[0..1]		see Loyalty request
Currency	[0..1]		see Loyalty request
AmountValue	[1..1]		

Response

	Mult.	Profile	Rule
EntryMode	[1..1]		
IdentificationType	[1..1]		
LoyaltyID	[1..1]		

PaymentResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
PaymentResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		Success Failure
ErrorCondition	[0..1]		If Result is not Success, or on warning condition
AdditionalResponse	[0..1]		If present, the POI logs it for further examination
SaleData	[1..1]		
SaleReferenceID	[1..1]		Copy
SaleTransactionID	[1..1]		Copy
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIData	[1..1]		
POITransactionID	[1..1]		
TransactionID	[1..1]		Identification of the transaction for the POI
TimeStamp	[1..1]		Date time of the payment request
POIReconciliationID	[0..1]		If Result is Success or Partial
PaymentResult	[0..1]		If one data element is present
PaymentType	[0..1]		Completion
PaymentInstrumentData	[0..1]		If a payment instrument is analysed by the POI.
PaymentInstrumentType	[1..1]		
CardData	[0..1]		If PaymentInstrumentType is "Card"

PaymentResponse Component	Mult.	Profile	Rule
PaymentBrand	[0..1]		If card PAN is readable
MaskedPAN	[0..1]		If required for the card, instead of clear PAN
PaymentAccountRef	[0..1]		Mandatory if available.
EntryMode	[1..1]		Copy if present in the request
CardCountryCode	[0..1]		If available in the card
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
SensitiveCardData	[0..1]		If structure non empty (unprotected)
PAN	[0..1]		If card PAN is readable
CardSeqNumb	[0..1]		If data available on the card
ExpiryDate	[0..1]		If data available on the card
TrackData	[0..4]		if configured to be sent, and EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
AllowedProductCode	[0..n]	SLOR	If ErrorCondition is "PaymentRestriction" (some products are not payable by the payment card)
PaymentToken	[0..1]		If a payment token has been requested in the request message, or in the Login request for the session.
TokenRequestedType	[1..1]		Copy
TokenValue	[1..1]		
ExpiryDateTime	[0..1]		
CustomerOrder	[0..n]		If the payment is related to a customer order in progress or if the list of customer orders has been requested.
CustomerOrderID	[1..1]		
ClosedOrderFlag	[0..1]		default "false"
StartDate	[1..1]		
EndDate	[0..1]		If ClosedOrderFlag = "true".

PaymentResponse Component	Mult.	Profile	Rule
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AccessedBy	[0..1]		If order process in progress.
AdditionalInformation	[0..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData

PaymentResponse Component	Mult.	Profile	Rule
SensitiveMobileData	[0..1]		If unprotected mobile data
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		Copy if present in the request.
IdentificationType	[1..1]		
StoredValueID	[1..1]		
AmountsResp	[0..1]		If Result is Success or Partial
Currency	[0..1]		Mandatory for currency conversion.
AuthorizedAmount	[1..1]		
TotalRebatesAmount	[0..1]	L	If rebate on the total amount or rebate on individual products
TotalFeesAmount	[0..1]	S	If fees to be charged from a financial service
CashBackAmount	[0..1]	*S*	If cashback service was performed with the payment
TipAmount	[0..1]		If payment with tip is configured on the POI c Sale System.
Instalment	[0..1]		Absent if PaymentType is not "IssuerInstalment"
InstalmentType	[0..1]		Copy
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		

PaymentResponse Component	Mult.	Profile	Rule
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CurrencyConversion	[0..n]		
CustomerApprovedFlag	[0..1]		Default true
ConvertedAmount	[1..1]		
AmountValue	[1..1]		
Currency	[1..1]		
Rate	[0..1]		Conversion rate of the target currency against the source currency.
Markup	[0..1]		Markup of the conversion.
Commission	[0..1]		Commission of the conversion.
Declaration	[0..1]		A declaration has to be presented to the customer.
MerchantOverrideFlag	[0..1]		default "false" If payment forced by the Cashier.
CapturedSignature	[0..1]		If handwritten signature is captured on the POI by a signature capture device.
AreaSize	[0..1]		
SignaturePoint	[1..n]		
X	[1..1]		
Y	[1..1]		
ProtectedSignature	[0..1]		Encrypted handwritten signature captured on the POI by a signature capture device.
CustomerLanguage	[0..1]		If the customer language is different from the default language or different from the CustomerLanguage of the PaymentRequest if any.

PaymentResponse Component	Mult.	Profile	Rule
OnlineFlag	[0..1]		default "true" "true" if the payment transaction processing has required the approval of a host.
AuthenticationMethod	[0..1]		Methods for customer authentication.
ValidityDate	[1..1]		
PaymentAcquirerData	[0..1]		If card is analysed and data available
AcquirerID	[0..1]		If several Acquirers
MerchantID	[1..1]		
AcquirerPOIID	[1..1]		
AcquirerTransactionID	[0..1]		If provided by the Acquirer and different from the POITransactionID.
TransactionID	[1..1]		
TimeStamp	[1..1]		
ApprovalCode	[0..1]		If available
HostReconciliationID	[0..1]		If provided by the Acquirer
LoyaltyResult	[0..n]	L	Loyalty cards used with the payment transaction. First the loyalty account present in the request in the same order if any.
LoyaltyAccount	[1..1]		
LoyaltyAccountID	[1..1]		
EntryMode	[1..1]		
IdentificationType	[1..1]		
IdentificationSupport	[1..1]		
LoyaltyID	[1..1]		
LoyaltyBrand	[0..1]		see Loyalty response
CurrentBalance	[0..1]		see Loyalty response
LoyaltyAmount	[0..1]		see Loyalty response
LoyaltyUnit	[0..1]		see Loyalty response
Currency	[0..1]		see Loyalty response
AmountValue	[1..1]		
LoyaltyAcquirerData	[0..1]		see Loyalty response

PaymentResponse Component	Mult.	Profile	Rule
LoyaltyAcquirerID	[0..1]		see Loyalty response
ApprovalCode	[0..1]		see Loyalty response
LoyaltyTransactionID	[0..1]		see Loyalty response
TransactionID	[1..1]		
TimeStamp	[1..1]		
HostReconciliationID	[0..1]		see Loyalty response
Rebates	[0..1]		see Loyalty response
TotalRebate	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
SaleItemRebate	[0..n]		see Loyalty response
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		if present in the related SaleItem
UnitOfMeasure	[0..1]		see Loyalty response
Quantity	[0..1]		see Loyalty response
ItemAmount	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
PaymentReceipt	[0..2]		If Basic profile implementation with no printer on the POI.
DocumentQualifier	[1..1]		SaleReceipt or CashierReceipt
IntegratedPrintFlag	[0..1]		same as PrintRequest
RequiredSignatureFlag	[0..1]		Default false.
OutputContent	[1..1]		
OutputFormat	[1..1]		Text, XHTML
OutputText	[0..n]		same as Display
Text	[1..1]		same as Display
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display

PaymentResponse Component	Mult.	Profile	Rule
CharacterWidth	[0..1]		same as Display
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display
Alignment	[0..1]		same as Display
EndOfLineFlag	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display

Message example

Request

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageCategory="Payment" MessageClass="Service"
MessageType="Request" POIID="
0000003952" SaleID="SaleTermA" ServiceID="647" />
    <PaymentRequest>
        <SaleData OperatorLanguage="fr" SaleReferenceID="0123456789ABCDEF">
            <SaleTransactionID TimeStamp="2021-04-30T14:30:27.285-04:00"
TransactionID="94990" />
        </SaleData>
        <PaymentTransaction>
            <AmountsReq Currency="EUR" RequestedAmount="200.00" />
            <OriginalPOITransaction>
                <POITransactionID TransactionID="001380" TimeStamp="2021-04-
20T20:30:26.000+02:
00" />
            </OriginalPOITransaction>
        </PaymentTransaction>
        <PaymentData PaymentType="Completion" SplitPaymentFlag="false" />
    </PaymentRequest>
</SaleToPOIRequest>
```

Response

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="647" SaleID="SaleTermA" POIID="0000003952" />
    <PaymentResponse>
        <Response Result="Success" />
        <SaleData SaleReferenceID="0123456789ABCDEF">
            <SaleTransactionID TransactionID="94990" TimeStamp="2021-04-
30T14:30:27.285-04:00" />
```

```xml
        </SaleData>
        <POIData POIReconciliationID="1">
            <POITransactionID TransactionID="001480" TimeStamp="2021-04-
30T20:30:26.000+02:00" />
        </POIData>
        <PaymentResult PaymentType="Completion">
            <AmountsResp AuthorizedAmount="200.00" />
            <PaymentAcquirerData MerchantID="30004143 " AcquirerID="51328310278"
                AcquirerPOIID="00000005" />
        </PaymentResult>
    </PaymentResponse>
</SaleToPOIResponse>
```

CARD VALIDITY CHECK

The message is a payment message, but with a `PaymentType = "CardValidityCheck"`.

Request

PaymentRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
PaymentRequest	[1..1]		
SaleData	[1..1]		
OperatorID	[0..1]		if different from the Login and *see Login .SaleData*
OperatorLanguage	[0..1]		if different from the Login
ShiftNumber	[0..1]		if different from the Login and *see Login .SaleData*
SaleTransactionID	[1..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
SaleReferenceID	[1..1]		
SaleTerminalData	[0..1]		If content is not empty
TerminalEnvironment	[0..1]		If modified since the login
SaleCapabilities	[0..1]		If modified since the login (devices failures)
TotalsGroupID	[0..1]		if modified since, or not in the login and used by the Sale System
TokenRequestedType	[0..1]		If a token is requested.
CustomerOrderID	[0..1]		If the payment is related to an open customer order.
CustomerOrderReq	[0..1]		If customer orders must be listed in the response message.
SaleToPOIData	[0..1]		Stored with the transaction
SaleToAcquirerData	[0..1]		Send to the Acquirer if present
SaleToIssuerData	[0..1]		Send to the Acquirer if present
StatementReference	[0..1]		Information to print on the bank statement
PaymentTransaction	[1..1]		
AmountsReq	[1..1]		
Currency	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
RequestedAmount	[0..1]	mandatory if not O	The value should be equal to 0.00
CashBackAmount	[0..1]	O	If payment with cash back requested by the Sale System.
TipAmount	[0..1]		If payment with tip requested by the Sale System.
PaidAmount	[0..1]		if SplitPaymentFlag is true
MinimumAmountToDeliver	[0..1]	O	if unknown maximum amount for a OneTimeReservation or minimum amount requested by the Sale System
MaximumCashBackAmount	[0..1]		Maximum amount which could be requested for cash-back to the Sale System.
MinimumSplitAmount	[0..1]		Minimum amount of a split, which could be requested.
OriginalPOITransaction	[0..1]		
POITransactionID	[0..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIID	[0..1]		If original transaction is coming from another POI
ReuseCardDataFlag	[0..1]	*B*OR	false
ApprovalCode	[0..1]		If referral
TransactionConditions	[0..1]		If one data element is present
AllowedPaymentBrand	[0..n]		Restrict brand if present
AcquirerID	[0..n]		Restrict to these Acquirer if present
DebitPreferredFlag	[0..1]		default false The preferred type of payment is a debit transaction rather than a credit transaction.
AllowedLoyaltyBrand	[0..n]	L	Restrict brand if present
LoyaltyHandling	[0..1]	L	default Forbidden
CustomerLanguage	[0..1]		If the language is selected by the Customer on the Sale System before the request to the POI.
ForceOnlineFlag	[0..1]		default false. Go online if data sent
ForceEntryMode	[0..n]		Restrict entry mode if sent and no PaymentData or LoyaltyData.CardAcquisitionReference
MerchantCategoryCode	[0..1]		The payment implies a specific MCC.
SaleItem	[0..n]	*S* L	If purchased products are required for the payment or loyalty

PaymentRequest Component	Mult.	Profile	Rule
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitOfMeasure	[0..1]		
Quantity	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitPrice	[0..1]		
ItemAmount	[1..1]		
TaxCode	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
SaleChannel	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
ProductLabel	[0..1]		
AdditionalProductInfo	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
PaymentData	[0..1]		If one data element is present
PaymentType	[0..1]		CardValidityCheck
SplitPaymentFlag	[0..1]		Default false if split of the amount with possible fleet cards.
RequestedValidityDate	[0..1]	OR	If time period of the OneTimeReservation, FirstReservation or UpdateReservation is requested
CardAcquisitionReference	[0..1]	E	if the card data comes from the previous CardAcquisition
TransactionID	[1..1]		
TimeStamp	[1..1]		
Instalment	[0..1]		If PaymentType is "Instalment" or "IssuerInstalment"
InstalmentType	[0..1]		
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		

PaymentRequest Component	Mult.	Profile	Rule
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CustomerOrder	[0..1]		If a customer orders has to be created.
CustomerOrderID	[1..1]		
StartDate	[1..1]		
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AdditionalInformation	[0..1]		
PaymentInstrumentData	[0..1]		If payment instrument data is read by the Sale System
PaymentInstrumentType	[1..1]		
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
CardData	[0..1]		If PaymentInstrumentType is "Card"
EntryMode	[1..1]		not (ICC or SynchronousICC)
SensitiveCardData	[0..1]		If structure non empty (could be CMS protected EnvelopedData)
PAN	[0..1]		if EntryMode is File, Keyed or Manual
CardSeqNumb	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
ExpiryDate	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
TrackData	[0..3]		if EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData
SensitiveMobileData	[0..1]		If unprotected mobile data
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		
IdentificationType	[1..1]		
StoredValueID	[1..1]		
LoyaltyData	[0..n]	L	Loyalty cards used with the payment transaction and read by the Sale System
CardAcquisitionReference	[0..1]	E	see Loyalty request
TransactionID	[1..1]		
TimeStamp	[1..1]		
LoyaltyAccountID	[0..1]		see Loyalty request

PaymentRequest Component	Mult.	Profile	Rule
EntryMode	[1..1]		
IdentificationType	[1..1]		
LoyaltyID	[1..1]		
LoyaltyAmount	[0..1]		When the Sale System want to make an additional award the Loyalty account
LoyaltyUnit	[0..1]		see Loyalty request
Currency	[0..1]		see Loyalty request
AmountValue	[1..1]		

Response

PaymentResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
PaymentResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		Success Failure
ErrorCondition	[0..1]		If Result is not Success, or on warning condition
AdditionalResponse	[0..1]		If present, the POI logs it for further examination
SaleData	[1..1]		
SaleReferenceID	[1..1]		Copy
SaleTransactionID	[1..1]		Copy
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIData	[1..1]		
POITransactionID	[1..1]		
TransactionID	[1..1]		Identification of the transaction for the POI
TimeStamp	[1..1]		Date time of the payment request
POIReconciliationID	[0..1]		If Result is Success or Partial
PaymentResult	[0..1]		If one data element is present
PaymentType	[0..1]		CardValidityCheck
PaymentInstrumentData	[0..1]		If a payment instrument is analysed by the POI.
PaymentInstrumentType	[1..1]		
CardData	[0..1]		If PaymentInstrumentType is "Card"

PaymentResponse Component	Mult.	Profile	Rule
PaymentBrand	[0..1]		If card PAN is readable
MaskedPAN	[0..1]		If required for the card, instead of clear PAN
PaymentAccountRef	[0..1]		Mandatory if available.
EntryMode	[1..1]		Copy if present in the request
CardCountryCode	[0..1]		If available in the card
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
SensitiveCardData	[0..1]		If structure non empty (unprotected)
PAN	[0..1]		If card PAN is readable
CardSeqNumb	[0..1]		If data available on the card
ExpiryDate	[0..1]		If data available on the card
TrackData	[0..4]		if configured to be sent, and EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
AllowedProductCode	[0..n]	*SLOR*	If ErrorCondition is "PaymentRestriction" (some products are not payable by the payment card)
PaymentToken	[0..1]		If a payment token has been requested in the request message, or in the Login request for the session.
TokenRequestedType	[1..1]		Copy
TokenValue	[1..1]		
ExpiryDateTime	[0..1]		
CustomerOrder	[0..n]		If the payment is related to a customer order in progress or if the list of customer orders has been requested.
CustomerOrderID	[1..1]		
ClosedOrderFlag	[0..1]		default "false"
StartDate	[1..1]		
EndDate	[0..1]		If ClosedOrderFlag = "true".

PaymentResponse Component	Mult.	Profile	Rule
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AccessedBy	[0..1]		If order process in progress.
AdditionalInformation	[0..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData

PaymentResponse Component	Mult.	Profile	Rule
SensitiveMobileData	[0..1]		If unprotected mobile data
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		Copy if present in the request.
IdentificationType	[1..1]		
StoredValueID	[1..1]		
AmountsResp	[0..1]		If Result is Success or Partial
Currency	[0..1]		Mandatory for currency conversion.
AuthorizedAmount	[1..1]		
TotalRebatesAmount	[0..1]	L	If rebate on the total amount or rebate on individual products
TotalFeesAmount	[0..1]	S	If fees to be charged from a financial service
CashBackAmount	[0..1]	*S*	If cashback service was performed with the payment
TipAmount	[0..1]		If payment with tip is configured on the POI c Sale System.
Instalment	[0..1]		Absent if PaymentType is not "IssuerInstalment"
InstalmentType	[0..1]		Copy
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		

PaymentResponse Component	Mult.	Profile	Rule
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CurrencyConversion	[0..n]		
CustomerApprovedFlag	[0..1]		Default true
ConvertedAmount	[1..1]		
AmountValue	[1..1]		
Currency	[1..1]		
Rate	[0..1]		Conversion rate of the target currency against the source currency.
Markup	[0..1]		Markup of the conversion.
Commission	[0..1]		Commission of the conversion.
Declaration	[0..1]		A declaration has to be presented to the customer.
MerchantOverrideFlag	[0..1]		default "false" If payment forced by the Cashier.
CapturedSignature	[0..1]		If handwritten signature is captured on the POI by a signature capture device.
AreaSize	[0..1]		
SignaturePoint	[1..n]		
X	[1..1]		
Y	[1..1]		
ProtectedSignature	[0..1]		Encrypted handwritten signature captured on the POI by a signature capture device.
CustomerLanguage	[0..1]		If the customer language is different from the default language or different from the CustomerLanguage of the PaymentRequest if any.

PaymentResponse Component	Mult.	Profile	Rule
OnlineFlag	[0..1]		default "true" "true" if the payment transaction processing has required the approval of a host.
AuthenticationMethod	[0..1]		Methods for customer authentication.
ValidityDate	[0..1]		
PaymentAcquirerData	[0..1]		If card is analysed and data available
AcquirerID	[0..1]		If several Acquirers
MerchantID	[1..1]		
AcquirerPOIID	[1..1]		
AcquirerTransactionID	[0..1]		If provided by the Acquirer and different from the POITransactionID.
TransactionID	[1..1]		
TimeStamp	[1..1]		
ApprovalCode	[0..1]		If available
HostReconciliationID	[0..1]		If provided by the Acquirer
LoyaltyResult	[0..n]	L	Loyalty cards used with the payment transaction. First the loyalty account present in the request in the same order if any.
LoyaltyAccount	[1..1]		
LoyaltyAccountID	[1..1]		
EntryMode	[1..1]		
IdentificationType	[1..1]		
IdentificationSupport	[1..1]		
LoyaltyID	[1..1]		
LoyaltyBrand	[0..1]		see Loyalty response
CurrentBalance	[0..1]		see Loyalty response
LoyaltyAmount	[0..1]		see Loyalty response
LoyaltyUnit	[0..1]		see Loyalty response
Currency	[0..1]		see Loyalty response
AmountValue	[1..1]		
LoyaltyAcquirerData	[0..1]		see Loyalty response

PaymentResponse Component	Mult.	Profile	Rule
LoyaltyAcquirerID	[0..1]		see Loyalty response
ApprovalCode	[0..1]		see Loyalty response
LoyaltyTransactionID	[0..1]		see Loyalty response
TransactionID	[1..1]		
TimeStamp	[1..1]		
HostReconciliationID	[0..1]		see Loyalty response
Rebates	[0..1]		see Loyalty response
TotalRebate	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
SaleItemRebate	[0..n]		see Loyalty response
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		if present in the related SaleItem
UnitOfMeasure	[0..1]		see Loyalty response
Quantity	[0..1]		see Loyalty response
ItemAmount	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
PaymentReceipt	[0..2]		If Basic profile implementation with no printer on the POI.
DocumentQualifier	[1..1]		SaleReceipt or CashierReceipt
IntegratedPrintFlag	[0..1]		same as PrintRequest
RequiredSignatureFlag	[0..1]		Default false.
OutputContent	[1..1]		
OutputFormat	[1..1]		Text, XHTML
OutputText	[0..n]		same as Display
Text	[1..1]		same as Display
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display

PaymentResponse Component	Mult.	Profile	Rule
CharacterWidth	[0..1]		same as Display
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display
Alignment	[0..1]		same as Display
EndOfLineFlag	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display

Message example

Request

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageCategory="Payment" MessageClass="Service"
MessageType="Request" POIID="
0000003952" SaleID="SaleTermA" ServiceID="647" />
    <PaymentRequest>
        <SaleData OperatorLanguage="fr">
            <SaleTransactionID TimeStamp="2021-04-16T14:30:27.285-04:00"
TransactionID="94884" />
        </SaleData>
        <PaymentTransaction>
            <AmountsReq Currency="EUR" RequestedAmount="0.00" />
        </PaymentTransaction>
        <PaymentData PaymentType="CardValidityCheck" SplitPaymentFlag="false" />
    </PaymentRequest>
</SaleToPOIRequest>
```

Response

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="647" SaleID="SaleTermA" POIID="0000003952" />
    <PaymentResponse>
        <Response Result="Success" />
        <SaleData>
            <SaleTransactionID TransactionID="94884" TimeStamp="2021-04-
16T14:30:27.285-04:00" />
        </SaleData>
        <POIData POIReconciliationID="1">
            <POITransactionID TransactionID="001360" TimeStamp="2021-04-
16T20:30:26.000+02:00" />
        </POIData>
```

```
        <PaymentResult PaymentType="CardValidityCheck">
            <PaymentInstrumentData PaymentInstrumentType="Card">
                <CardData PaymentBrand="CB" EntryMode="Contactless"
 MaskedPAN="XXXXXXXXXXXX6131" />
            </PaymentInstrumentData>
            <AmountsResp AuthorizedAmount="0.00" />
            <PaymentAcquirerData MerchantID="30004143 " AcquirerID="51328310278"
                AcquirerPOIID="00000005" />
        </PaymentResult>
    </PaymentResponse>
</SaleToPOIResponse>
```

NO SHOW

The message is a payment message, but with a `PaymentType = "NoShow"`.

Request

PaymentRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
PaymentRequest	[1..1]		
SaleData	[1..1]		
OperatorID	[0..1]		if different from the Login and *see Login .SaleData*
OperatorLanguage	[0..1]		if different from the Login
ShiftNumber	[0..1]		if different from the Login and *see Login .SaleData*
SaleTransactionID	[1..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
SaleReferenceID	[1..1]		
SaleTerminalData	[0..1]		If content is not empty
TerminalEnvironment	[0..1]		If modified since the login
SaleCapabilities	[0..1]		If modified since the login (devices failures)
TotalsGroupID	[0..1]		if modified since, or not in the login and used by the Sale System
TokenRequestedType	[0..1]		If a token is requested.
CustomerOrderID	[0..1]		If the payment is related to an open customer order.
CustomerOrderReq	[0..1]		If customer orders must be listed in the response message.
SaleToPOIData	[0..1]		Stored with the transaction
SaleToAcquirerData	[0..1]		Send to the Acquirer if present
SaleToIssuerData	[0..1]		Send to the Acquirer if present
StatementReference	[0..1]		Information to print on the bank statement
PaymentTransaction	[1..1]		
AmountsReq	[1..1]		
Currency	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
RequestedAmount	[0..1]	mandatory if not O	The value has to be greater than 0.
CashBackAmount	[0..1]	O	If payment with cash back requested by the Sale System.
TipAmount	[0..1]		If payment with tip requested by the Sale System.
PaidAmount	[0..1]		if SplitPaymentFlag is true
MinimumAmountToDeliver	[0..1]	O	if unknown maximum amount for a OneTimeReservation or minimum amount requested by the Sale System
MaximumCashBackAmount	[0..1]		Maximum amount which could be requested for cash-back to the Sale System.
MinimumSplitAmount	[0..1]		Minimum amount of a split, which could be requested.
OriginalPOITransaction	[1..1]		
POITransactionID	[1..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIID	[0..1]		If original transaction is coming from another POI
ReuseCardDataFlag	[0..1]	*B*OR	false
ApprovalCode	[0..1]		If referral
TransactionConditions	[0..1]		If one data element is present
AllowedPaymentBrand	[0..n]		Restrict brand if present
AcquirerID	[0..n]		Restrict to these Acquirer if present
DebitPreferredFlag	[0..1]		default false The preferred type of payment is a debit transaction rather than a credit transaction.
AllowedLoyaltyBrand	[0..n]	L	Restrict brand if present
LoyaltyHandling	[0..1]	L	default Forbidden
CustomerLanguage	[0..1]		If the language is selected by the Customer on the Sale System before the request to the POI.
ForceOnlineFlag	[0..1]		default false. Go online if data sent
ForceEntryMode	[0..n]		Restrict entry mode if sent and no PaymentData or LoyaltyData.CardAcquisitionReference
MerchantCategoryCode	[0..1]		The payment implies a specific MCC.
SaleItem	[0..n]	*S* L	If purchased products are required for the payment or loyalty

PaymentRequest Component	Mult.	Profile	Rule
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitOfMeasure	[0..1]		
Quantity	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
UnitPrice	[0..1]		
ItemAmount	[1..1]		
TaxCode	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
SaleChannel	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
ProductLabel	[0..1]		
AdditionalProductInfo	[0..1]		If data sent, POI has to store it and send it if the host protocol allows it
PaymentData	[0..1]		If one data element is present
PaymentType	[0..1]		NoShow
SplitPaymentFlag	[0..1]		Default false if split of the amount with possible fleet cards.
RequestedValidityDate	[0..1]	OR	If time period of the OneTimeReservation, FirstReservation or UpdateReservation is requested
CardAcquisitionReference	[0..1]	E	if the card data comes from the previous CardAcquisition
TransactionID	[1..1]		
TimeStamp	[1..1]		
Instalment	[0..1]		If PaymentType is "Instalment" or "IssuerInstalment"
InstalmentType	[0..1]		
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		

PaymentRequest Component	Mult.	Profile	Rule
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CustomerOrder	[0..1]		If a customer orders has to be created.
CustomerOrderID	[1..1]		
StartDate	[1..1]		
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AdditionalInformation	[0..1]		
PaymentInstrumentData	[0..1]		If payment instrument data is read by the Sale System
PaymentInstrumentType	[1..1]		
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
CardData	[0..1]		If PaymentInstrumentType is "Card"
EntryMode	[1..1]		not (ICC or SynchronousICC)
SensitiveCardData	[0..1]		If structure non empty (could be CMS protected EnvelopedData)
PAN	[0..1]		if EntryMode is File, Keyed or Manual
CardSeqNumb	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
ExpiryDate	[0..1]		if EntryMode is File, Keyed or Manual and data available on the card
TrackData	[0..3]		if EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		

PaymentRequest Component	Mult.	Profile	Rule
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData
SensitiveMobileData	[0..1]		If unprotected mobile data
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		
IdentificationType	[1..1]		
StoredValueID	[1..1]		
LoyaltyData	[0..n]	L	Loyalty cards used with the payment transaction and read by the Sale System
CardAcquisitionReference	[0..1]	E	see Loyalty request
TransactionID	[1..1]		
TimeStamp	[1..1]		
LoyaltyAccountID	[0..1]		see Loyalty request

PaymentRequest Component	Mult.	Profile	Rule
EntryMode	[1..1]		
IdentificationType	[1..1]		
LoyaltyID	[1..1]		
LoyaltyAmount	[0..1]		When the Sale System want to make an additional award the Loyalty account
LoyaltyUnit	[0..1]		see Loyalty request
Currency	[0..1]		see Loyalty request
AmountValue	[1..1]		

Response

PaymentRequest Component	Mult.	Profile	Rule
EntryMode	[1..1]		
IdentificationType	[1..1]		

PaymentResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Payment
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
PaymentResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		Success Failure
ErrorCondition	[0..1]		If Result is not Success, or on warning condition
AdditionalResponse	[0..1]		If present, the POI logs it for further examination
SaleData	[1..1]		
SaleReferenceID	[1..1]		Copy
SaleTransactionID	[1..1]		Copy
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIData	[1..1]		
POITransactionID	[1..1]		
TransactionID	[1..1]		Identification of the transaction for the POI
TimeStamp	[1..1]		Date time of the payment request
POIReconciliationID	[0..1]		If Result is Success or Partial
PaymentResult	[0..1]		If one data element is present
PaymentType	[0..1]		NoShow
PaymentInstrumentData	[0..1]		If a payment instrument is analysed by the POI.
PaymentInstrumentType	[1..1]		
CardData	[0..1]		If PaymentInstrumentType is "Card"

PaymentResponse Component	Mult.	Profile	Rule
PaymentBrand	[0..1]		If card PAN is readable
MaskedPAN	[0..1]		If required for the card, instead of clear PAN
PaymentAccountRef	[0..1]		Mandatory if available.
EntryMode	[1..1]		Copy if present in the request
CardCountryCode	[0..1]		If available in the card
ProtectedCardData	[0..1]		SensitiveCardData protected by CMS EnvelopedData
SensitiveCardData	[0..1]		If structure non empty (unprotected)
PAN	[0..1]		If card PAN is readable
CardSeqNumb	[0..1]		If data available on the card
ExpiryDate	[0..1]		If data available on the card
TrackData	[0..4]		if configured to be sent, and EntryMode is MagStripe or RFID
TrackNumb	[0..1]		default 2
TrackFormat	[0..1]		default ISO
TrackValue	[1..1]		
AllowedProductCode	[0..n]	SLOR	If ErrorCondition is "PaymentRestriction" (some products are not payable by the payment card)
PaymentToken	[0..1]		If a payment token has been requested in the request message, or in the Login request for the session.
TokenRequestedType	[1..1]		Copy
TokenValue	[1..1]		
ExpiryDateTime	[0..1]		
CustomerOrder	[0..n]		If the payment is related to a customer order in progress or if the list of customer orders has been requested.
CustomerOrderID	[1..1]		
ClosedOrderFlag	[0..1]		default "false"
StartDate	[1..1]		
EndDate	[0..1]		If ClosedOrderFlag = "true".

PaymentResponse Component	Mult.	Profile	Rule
TotalAmount	[1..1]		
RemainingAmount	[1..1]		
Currency	[0..1]		If multiple currencies are allowed.
AccessedBy	[0..1]		If order process in progress.
AdditionalInformation	[0..1]		
CheckData	[0..1]		If PaymentInstrumentType is "Check"
BankID	[0..1]		Mandatory if TrackData absent
AccountNumber	[0..1]		Mandatory if TrackData absent
CheckNumber	[0..1]		Mandatory if TrackData absent
TrackData	[0..1]		Mandatory if CheckNumber absent
TrackNumb	[0..1]		default 2
TrackFormat	[1..1]		"E-13B" or "CMC-7"
TrackValue	[1..1]		
CheckCardNumber	[0..1]		If provided by the customer
TypeCode	[0..1]		default Personal
Country	[0..1]		Absent if country of the Sale system
MobileData	[0..1]		If PaymentInstrumentType is "Mobile"
MobileCountryCode	[0..1]		If data available
MobileNetworkCode	[0..1]		If data available
MaskedMSISDN	[0..1]		If data available
Geolocation	[0..1]		If data available
GeographicCoordinates	[0..1]		
Latitude	[1..1]		
Longitude	[1..1]		
UTMCoordinates	[0..1]		
UTMZone	[1..1]		
UTMEastward	[1..1]		
UTMNorthward	[1..1]		
ProtectedMobileData	[0..1]		*SensitiveMobileData* protected by CMS EnvelopedData

PaymentResponse Component	Mult.	Profile	Rule
SensitiveMobileData	[0..1]		If unprotected mobile data
MSISDN	[1..1]		
IMSI	[0..1]		If data available
IMEI	[0..1]		If data available
StoredValueAccountID	[0..1]		If PaymentInstrumentType is "StoredValue"
StoredValueAccountType	[1..1]		
StoredValueProvider	[0..1]		If available for the card or account.
OwnerName	[0..1]		If available for the card or account.
ExpiryDate	[0..1]		If required for the card or account.
EntryMode	[1..1]		Copy if present in the request.
IdentificationType	[1..1]		
StoredValueID	[1..1]		
AmountsResp	[0..1]		If Result is Success or Partial
Currency	[0..1]		Mandatory for currency conversion.
AuthorizedAmount	[1..1]		
TotalRebatesAmount	[0..1]	L	If rebate on the total amount or rebate on individual products
TotalFeesAmount	[0..1]	S	If fees to be charged from a financial service
CashBackAmount	[0..1]	*S*	If cashback service was performed with the payment
TipAmount	[0..1]		If payment with tip is configured on the POI c Sale System.
Instalment	[0..1]		Absent if PaymentType is not "IssuerInstalment"
InstalmentType	[0..1]		Copy
SequenceNumber	[0..1]		
PlanID	[0..1]		
Period	[0..1]		
PeriodUnit	[0..1]		

PaymentResponse Component	Mult.	Profile	Rule
FirstPaymentDate	[0..1]		Mandatory if InstalmentType= "DeferredInstalments".
TotalNbOfPayments	[0..1]		
CumulativeAmount	[0..1]		
FirstAmount	[0..1]		If the first amount is different from the others (InstalmentType= "InequalInstalments")
Charges	[0..1]		
CurrencyConversion	[0..n]		
CustomerApprovedFlag	[0..1]		Default true
ConvertedAmount	[1..1]		
AmountValue	[1..1]		
Currency	[1..1]		
Rate	[0..1]		Conversion rate of the target currency against the source currency.
Markup	[0..1]		Markup of the conversion.
Commission	[0..1]		Commission of the conversion.
Declaration	[0..1]		A declaration has to be presented to the customer.
MerchantOverrideFlag	[0..1]		default "false" If payment forced by the Cashier.
CapturedSignature	[0..1]		If handwritten signature is captured on the POI by a signature capture device.
AreaSize	[0..1]		
SignaturePoint	[1..n]		
X	[1..1]		
Y	[1..1]		
ProtectedSignature	[0..1]		Encrypted handwritten signature captured on the POI by a signature capture device.
CustomerLanguage	[0..1]		If the customer language is different from the default language or different from the CustomerLanguage of the PaymentRequest if any.

PaymentResponse Component	Mult.	Profile	Rule
OnlineFlag	[0..1]		default "true" "true" if the payment transaction processing has required the approval of a host.
AuthenticationMethod	[0..1]		Methods for customer authentication.
ValidityDate	[0..1]		
PaymentAcquirerData	[0..1]		If card is analysed and data available
AcquirerID	[0..1]		If several Acquirers
MerchantID	[1..1]		
AcquirerPOIID	[1..1]		
AcquirerTransactionID	[0..1]		If provided by the Acquirer and different from the POITransactionID.
TransactionID	[1..1]		
TimeStamp	[1..1]		
ApprovalCode	[0..1]		If available
HostReconciliationID	[0..1]		If provided by the Acquirer
LoyaltyResult	[0..n]	L	Loyalty cards used with the payment transaction. First the loyalty account present in the request in the same order if any.
LoyaltyAccount	[1..1]		
LoyaltyAccountID	[1..1]		
EntryMode	[1..1]		
IdentificationType	[1..1]		
IdentificationSupport	[1..1]		
LoyaltyID	[1..1]		
LoyaltyBrand	[0..1]		see Loyalty response
CurrentBalance	[0..1]		see Loyalty response
LoyaltyAmount	[0..1]		see Loyalty response
LoyaltyUnit	[0..1]		see Loyalty response
Currency	[0..1]		see Loyalty response
AmountValue	[1..1]		
LoyaltyAcquirerData	[0..1]		see Loyalty response

PaymentResponse Component	Mult.	Profile	Rule
LoyaltyAcquirerID	[0..1]		see Loyalty response
ApprovalCode	[0..1]		see Loyalty response
LoyaltyTransactionID	[0..1]		see Loyalty response
TransactionID	[1..1]		
TimeStamp	[1..1]		
HostReconciliationID	[0..1]		see Loyalty response
Rebates	[0..1]		see Loyalty response
TotalRebate	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
SaleItemRebate	[0..n]		see Loyalty response
ItemID	[1..1]		
ProductCode	[1..1]		
EanUpc	[0..1]		if present in the related SaleItem
UnitOfMeasure	[0..1]		see Loyalty response
Quantity	[0..1]		see Loyalty response
ItemAmount	[0..1]		see Loyalty response
RebateLabel	[0..1]		see Loyalty response
PaymentReceipt	[0..2]		If Basic profile implementation with no printer on the POI.
DocumentQualifier	[1..1]		SaleReceipt or CashierReceipt
IntegratedPrintFlag	[0..1]		same as PrintRequest
RequiredSignatureFlag	[0..1]		Default false.
OutputContent	[1..1]		
OutputFormat	[1..1]		Text, XHTML
OutputText	[0..n]		same as Display
Text	[1..1]		same as Display
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display

PaymentResponse Component	Mult.	Profile	Rule
CharacterWidth	[0..1]		same as Display
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display
Alignment	[0..1]		same as Display
EndOfLineFlag	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display

Message example

Request

Without Manual Entry

```
?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageCategory="Payment" MessageClass="Service"
MessageType="Request" POIID="
0000003952" SaleID="SaleTermA" ServiceID="647" />
    <PaymentRequest>
        <SaleData OperatorLanguage="fr" SaleReferenceID="0123456789ABCDEF">
            <SaleTransactionID TimeStamp="2021-04-30T14:30:27.285-04:00"
TransactionID="94990" />
        </SaleData>
        <PaymentTransaction>
            <AmountsReq Currency="EUR" RequestedAmount="50.00" />
            <OriginalPOITransaction>
                <POITransactionID TransactionID="001380" TimeStamp="2021-04-
20T20:30:26.000+02:
00" />
            </OriginalPOITransaction>
        </PaymentTransaction>
        <PaymentData PaymentType="NoShow" SplitPaymentFlag="false" />
    </PaymentRequest>
</SaleToPOIRequest>
```

With Manual Entry

```
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageCategory="Payment" MessageClass="Service"
MessageType="Request" POIID="
0000003952" SaleID="SaleTermA" ServiceID="647" />
    <PaymentRequest>
        <SaleData OperatorLanguage="fr">
```

```xml
            <SaleTransactionID TimeStamp="2021-04-16T14:30:27.285-04:00"
TransactionID="94884" />
        </SaleData>
        <PaymentTransaction>
            <AmountsReq Currency="EUR" RequestedAmount="50.00" />
            <TransactionConditions>
                <ForceEntryMode>Keyed</ForceEntryMode>
            </TransactionConditions>
        </PaymentTransaction>
        <PaymentData PaymentType="NoShow" SplitPaymentFlag="false" />
    </PaymentRequest>
</SaleToPOIRequest>
```

Response

Without Manual Entry

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="647" SaleID="SaleTermA" POIID="0000003952" />
    <PaymentResponse>
        <Response Result="Success" />
        <SaleData SaleReferenceID="0123456789ABCDEF">
            <SaleTransactionID TransactionID="94990" TimeStamp="2021-04-
30T14:30:27.285-04:00" />
        </SaleData>
        <POIData POIReconciliationID="1">
            <POITransactionID TransactionID="001480" TimeStamp="2021-04-
30T20:30:26.000+02:00" />
        </POIData>
        <PaymentResult PaymentType="NoShow">
            <AmountsResp AuthorizedAmount="50.00" />
            <PaymentAcquirerData MerchantID="30004143 " AcquirerID="51328310278"
                AcquirerPOIID="00000005" />
        </PaymentResult>
    </PaymentResponse>
</SaleToPOIResponse>
```

Without Manual Entry

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="
EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="647" SaleID="SaleTermA" POIID="0000003952" />
    <PaymentResponse>
        <Response Result="Success" />
        <SaleData>
            <SaleTransactionID TransactionID="94884" TimeStamp="2021-04-
16T14:30:27.285-04:00" />
```

```
        </SaleData>
        <POIData POIReconciliationID="1">
            <POITransactionID TransactionID="001360" TimeStamp="2021-04-
16T20:30:26.000+02:00" />
        </POIData>
        <PaymentResult PaymentType="NoShow">
            <PaymentInstrumentData PaymentInstrumentType="Card">
                <CardData PaymentBrand="CB" EntryMode="Keyed"
MaskedPAN="XXXXXXXXXXXX6131" />
            </PaymentInstrumentData>
            <AmountsResp AuthorizedAmount="50.00" />
            <PaymentAcquirerData MerchantID="30004143 " AcquirerID="51328310278"
                AcquirerPOIID="00000005" />
        </PaymentResult>
    </PaymentResponse>
</SaleToPOIResponse>
```

RECONCILIATION

Reconciliation happens :

- Automatically when the one of the reconciliation criteria in the POI configuration is met (number of transactions, Total amount, daily schedule). In this case the POI will send an event notification and a print request is sent to the POS system.
- Manually if the POSsystem sends a reconciliation request message. A report is then generated and printed on the POS. This report contains the total amounts by transaction type, both amounts sent to the acquirer and received from the acquirer in the host response.

Request

ReconciliationRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Reconciliation
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
ReconciliationRequest	[1..1]		
ReconciliationType	[1..1]		AcquirerReconciliation
AcquirerID	[0..n]		if not present, reconciliation will be done for all acquirers.
POIReconciliationID	[0..1]		Present if ReconciliationType is "PreviousReconciliation"

Response

ReconciliationResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Reconciliation
MessageType	[1..1]		Response
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
ReconciliationResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		Success Failure
ErrorCondition	[0..1]		*same as PaymentResponse*
AdditionalResponse	[0..1]		*same as PaymentResponse*
ReconciliationType	[1..1]		Copy
POIReconciliationID	[0..1]		Absent if *ReconciliationType* is "AcquirerReconciliation"
TransactionTotals	[0..n]		if Response.Result is Success One set of totals per value of CardBrand and AcquirerID, ..., TotalsGroupID if presents
PaymentInstrumentType	[1..1]		
AcquirerID	[0..1]		If available
ErrorCondition	[0..1]		if Response.Result is Partial, and the reconciliation with this Acquirer failed.
HostReconciliationID	[0..1]		If available
CardBrand	[0..1]		If configured to present totals per card brand, and Response.Result is Success
POIID	[0..1]		If configured to present totals per POI terminals, or for the POI Terminal receiving the request.
SaleID	[0..1]		If configured to present totals per Sale terminals, or for the Sale Terminal receiving the request.

ReconciliationResponse Component	Mult.	Profile	Rule
OperatorID	[0..1]		If configured to present totals per Cashier, or for the Cahier logged in the current session and identified in the Login message.
ShiftNumber	[0..1]		If configured to present totals per shift, or for the current shift identified in the Login message.
TotalsGroupID	[0..1]		If configured to present totals per TotalsGroupID
PaymentCurrency	[0..1]		
PaymentTotals	[0..10]		If If both TransactionCount and TransactionAmount are not equal to zero
TransactionType	[1..1]		Debit, Credit, ReverseDebit, ReverseCredit, OneTimeReservation, CompletedDeffered, FirstReservation, UpdateReservation, CompletedReservation, CashAdvance, IssuerInstalment, Failed, Declined
TransactionCount	[1..1]		
TransactionAmount	[1..1]		
LoyaltyUnit	[0..1]		default Point
LoyaltyCurrency	[0..1]		If LoyaltyUnit is Monetary
LoyaltyTotals	[0..6]	L	If both TransactionCount and TransactionAmount are not equal to zero
TransactionType	[1..1]		Award, ReverseAward, Redemption, ReverseRedemption, Rebate, ReverseRebate, Failed
TransactionCount	[1..1]		
TransactionAmount	[1..1]		

Message example

Request

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="1115442727"
        MessageType="Request" MessageCategory="Reconciliation"
MessageClass="Service" />
    <ReconciliationRequest ReconciliationType="AcquirerReconciliation" />
</SaleToPOIRequest>
```

Response

Reconciliation response with a terminal configured to show totals splitted by transaction type.

```xml
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <MessageHeader MessageClass="Service" MessageCategory="Reconciliation"
MessageType="Response"
        ServiceID="1115442727" SaleID="SaleTermA" POIID="POITerminal1" />
    <ReconciliationResponse ReconciliationType="AcquirerSynchronisation"
        POIReconciliationID="103001">
        <Response Result="Success" />
        <TransactionTotals PaymentInstrumentType="Card" AcquirerID="03"
HostReconciliationID=""
            CardBrand="MasterCard" PaymentCurrency="CAD">
            <PaymentTotals TransactionType="Debit" TransactionCount="5"
TransactionAmount="43.85" />
            <PaymentTotals TransactionType="Credit" TransactionCount="1"
TransactionAmount="4.53" />
            <PaymentTotals TransactionType="Failed" TransactionCount="1"
TransactionAmount="8.81" />
        </TransactionTotals>
        <TransactionTotals PaymentInstrumentType="Card" AcquirerID="03"
HostReconciliationID=""
            CardBrand="Visa" PaymentCurrency="CAD">
            <PaymentTotals TransactionType="Debit" TransactionCount="12"
                TransactionAmount="241.12" />
            <PaymentTotals TransactionType="Credit" TransactionCount="2"
                TransactionAmount="11.22" />
            <PaymentTotals TransactionType="ReverseDebit" TransactionCount="2"
                TransactionAmount="22.65" />
        </TransactionTotals>
    </ReconciliationResponse>
</SaleToPOIResponse>
```

BATCH MESSAGE

The message Batch Request is used in the Nomade (mobile POI not connected to the POS at the time of the payment transaction):

- To load the payment requests in the POI. In this case the POS sends all the payments requests, then the POI will answer with a success `BatchResponse` message but no transaction detail as no transaction have been performed.
- To load the transaction performed by the POI, in the POS. In this case, the POS sends an empty Batch request message and the POI sends all the transactions performed in the Batch Response message.

1. In the request:

   - If `RemoveAllFlag` has the value "true are removed from the POI.
   - If `RemoveAllFlag` has the value "false", the transactions not yet performed stay in the POI to be performed later. The transactions not yet performed are never returned in the response.

2. In the response, the POI might send:

   - Transactions coming from several Batch request messages,

   - Transactions not requested by the Sale system, but performed by the POI without connection to the Sale system.

- Split payment for one sale transaction

Request

Batch Request Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Batch
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
BatchRequest	[1..1]		
RemoveAllFlag	[0..1]		default false
TransactionToPerform	[0..n]		For each occurrence, exactly one of the PaymentRequest, or ReversalRequest may be present.
PaymentRequest	[0..1]		
LoyaltyRequest	[0..1]		
ReversalRequest	[0..1]		

Response

Batch Response Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Batch
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
BatchResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		
ErrorCondition	[0..1]		see PaymentResponse
AdditionalResponse	[0..1]		see PaymentResponse
PerformedTransaction	[0..n]		One occurrence per Payment, Loyalty without Payment, or Reversal transaction.
Response	[1..1]		
Result	[1..1]		
ErrorCondition	[0..1]		see PaymentResponse
AdditionalResponse	[0..1]		see PaymentResponse
SaleData	[0..1]		If the transaction request has been generated by the Sale system.
SaleTransactionID	[1..1]		Copy
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIData	[1..1]		
POITransactionID	[1..1]		
TransactionID	[1..1]		
TimeStamp	[1..1]		
POIReconciliationID	[1..1]		
PaymentResult	[0..1]		If a Payment transaction has been performed and one (or several) data element is present

Batch Response Component	Mult.	Profile	Rule
LoyaltyResult	[0..n]	L	If a Loyalty transaction has been performed alone or with the Payment transaction.
ReversedAmount	[0..1]		If a transaction Reversal has been performed.

Message example

Request

Load bills on the POI and remove all previous bills not paid

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="8716631668"
        MessageType="Request" MessageCategory="Batch" MessageClass="Service" />
    <BatchRequest RemoveAllFlag="true">
        <TransactionToPerform>
            <PaymentRequest>
                <SaleData>
                    <SaleTransactionID TimeStamp="2013-11-20T15:02:14.500-05:00"
                        TransactionID="123456" />
                </SaleData>
                <PaymentTransaction>
                    <AmountsReq RequestedAmount="50.00" Currency="CAD" />
                </PaymentTransaction>
                <PaymentData PaymentType="Normal" />
            </PaymentRequest>
            <PaymentRequest>
                <SaleData>
                    <SaleTransactionID TimeStamp="2013-11-20T15:02:15.500-05:00"
                        TransactionID="123457" />
                </SaleData>
                <PaymentTransaction>
                    <AmountsReq RequestedAmount="70.00" Currency="CAD" />
                </PaymentTransaction>
                <PaymentData PaymentType="Normal" />
            </PaymentRequest>
        </TransactionToPerform>
    </BatchRequest>
</SaleToPOIRequest>
```

Response

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Batch"
MessageType="Response"
        ServiceID="8716631668" SaleID="SaleTermA" POIID="POITerminal1" />
    <BatchResponse Result="Success"></BatchResponse>
</SaleToPOIResponse>
```

From POI to POS

POI Requests

Display

The Display message pair is used in different environments for various purposes:

- **Display to the Cashier during a POI Transaction**: During the processing of some request from the Sale Terminal, the POI Terminal wants to show some information to the Cashier on a display device managed by the Sale Terminal. Information is presented on the logical Device `CashierDisplay` managed by the Sale Terminal with the following value of the parameter `InfoQualify`

    - `Status` : the different states of the processing are displayed to the Cashier to communicate the progress of the transaction. For instance, during a payment, the POI could display to the Cashier that POI request an authorisation to the host acquirer.
    - `Error` : Error situation which has to be known by the Cashier but not necessary by the Customer. For instance when the Acquirer requires to the Merchant to capture the card of the Customer.
    - `POIReplication` : The POI replicates to the Cashier what is displayed internally to the Customer by the POI Terminal. The Cashier might assist the Customer conducting the transaction. Depending on the transaction performed by the POI, sensitive information can be not replicated to the Cashier.

- **Display to the Cashier outside a POI Transaction**: The Sale Terminal uses for its Cashier interface a display device managed by the POI Terminal. The Sale Terminal uses Device Service as Display to communicate with the Cashier. Information is presented on the logical Device `CashierDisplay` managed by the POI Terminal with the following value of the parameter `InfoQualify`

    - `Display` : the standard information displayed to communicate to the Cashier during the transaction.
    - `Error` : If the case of the Cashier interface uses using a specific device or presentation for error messages.

⚠ Some of the messages require a response and some not (`POIReplication` for example), according to the parameter `ResponseRequiredFlag` .

Request

DisplayRequest Component	Mult	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		"Device"
MessageCategory	[1..1]		Display
MessageType	[1..1]		Request
ServiceID	[0..1]		if requested inside a service
DeviceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
DisplayRequest	[1..1]		
DisplayOutput	[1..n]		Complete display content for output devices. At most one DisplayOutput per Device/InfoQualify pair.
ResponseRequiredFlag	[0..1]		false
MinimumDisplayTime	[0..1]		default 0
Device	[1..1]		CashierDisplay
InfoQualify	[1..1]		Status, Error, Display, Input, POIReplication
OutputContent	[1..1]		
OutputFormat	[1..1]		Text
PredefinedContent	[0..1]	S from Sale	Mandatory, if OutputFormat is MessageRef Not allowed, otherwise
ReferenceID	[1..1]		
Language	[0..1]		Default language if absent
OutputText	[0..n]	S from POI	Mandatory, as OutputFormat is Text
Text	[1..1]	S	
CharacterSet	[0..1]	E	If not present, the settings of the target system or device are used.
Font	[0..1]	E	If not present, the settings of the target system or device are used.
StartRow	[0..1]	E	If not present, the settings of the target system or device are used (e.g. current row position).

DisplayRequest Component	Mult	Profile	Rule
StartColumn	[0..1]	E	If not present, the settings of the target system or device are used (e.g. current column position).
Color	[0..1]	E	If not present, default colour used
CharacterWidth	[0..1]	E	If not present, default width used
CharacterHeight	[0..1]	E	If not present, default height used
CharacterStyle	[0..1]	E	If not present, default style used
Alignment	[0..1]	E	If not present, default alignment used
EndOfLineFlag	[0..1]	E	default true
OutputXHTML	[0..1]	E	Mandatory, if OutputFormat is XHTML Not allowed, otherwise
OutputBarcode	[0..1]	E	Mandatory, if OutputFormat is BarCode Not allowed, otherwise
BarcodeType	[0..1]		default EAN13 EAN8, EAN13, UPCA, Code25, Code128, PDF417
BarcodeValue	[1..1]		
OutputSignature	[0..1]		If protection has to be provided to the vendor on the text to display.

⚠ **If `DisplayOutput.MinimumDisplayTime` is not in the request, or equal to 0, the message must be**
displayed until a new display request is sent.

If `DisplayOutput.MinimumDisplayTime` is greater than zero, the `OutputContent` content has to be displayed at least this period in seconds, but the message response has to be sent immediately.

If a new Display message is sent before the end of this period, the receiver of the message overwrites the current display and send back a Display response with `Result="Success"`, if a response is required.

⚠ **The POI does not need to know the display status, so the `ResponseRequiredFlag` will be set to `false`. It is the responsibility of the POS system to have an error resolution process in case of failure**.

Message example

```
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Device" MessageCategory="Display"
MessageType="Request"
        ServiceID="651" DeviceID="2" SaleID="SaleTermA" POIID="POITerm1" />
    <DisplayRequest>
```

```xml
        <DisplayOutput ResponseRequiredFlag="false" Device="CashierDisplay"
InfoQualify="Status">
            <OutputContent OutputFormat="Text">
                <OutputText>Magstripe
                    PAYMENT
                    AMOUNT:
                    24.00CAD
                    ENTER 0
                </OutputText>
            </OutputContent>
        </DisplayOutput>
    </DisplayRequest>
</SaleToPOIRequest>
```

```xml
  <?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Device" MessageCategory="Display"
MessageType="Request"
        ServiceID="652" DeviceID="2" SaleID="SaleTermA" POIID="POITerm1" />
    <DisplayRequest>
        <DisplayOutput ResponseRequiredFlag="false" Device="CashierDisplay"
InfoQualify="Status">
            <OutputContent OutputFormat="Text">
                <OutputText>PLEASE WAIT</OutputText>
            </OutputContent>
        </DisplayOutput>
    </DisplayRequest>
</SaleToPOIRequest>
```

Print

The print service is used by the POI to print on the POS system, inside or outside a transaction

- Receipts
- Reports
- Journal

The `RequiredSignatureFlag` indicates if a receipt must be signed by the cardholder.

⚠ **The POI does not need to know the print status, so the `ResponseMode` will be set to `NotRequired`. It is the responsibility of the POS system to have an error resolution process in case of failure. The POI service `TransactionStatus` allows to reprint the receipts of the last transaction (`ReceiptReprintFlag = true`)**

Request

PrintRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		"Device"
MessageCategory	[1..1]		Print
MessageType	[1..1]		Request
ServiceID	[0..1]		if requested inside a Service dialogue
DeviceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
PrintRequest	[1..1]		
PrintOutput	[1..1]		
DocumentQualifier	[1..1]		CashierReceipt CustomerReceipt Journal
ResponseMode	[1..1]		NotRequired
IntegratedPrintFlag	[0..1]		default false. Not allowed if DocumentQualifier is not "CashierReceipt" or "CustomerReceipt".
RequiredSignatureFlag	[0..1]		Optional, default false. Will be sent only when signature is required, with value true.
OutputContent	[1..1]		
OutputFormat	[1..1]		Text
PredefinedContent	[0..1]		same as Display
ReferenceID	[1..1]		same as Display
Language	[0..1]		same as Display
OutputText	[0..n]		same as Display
Text	[1..1]		same as Display
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display
CharacterWidth	[0..1]		same as Display
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display

PrintRequest Component	Mult.	Profile	Rule
Alignment	[0..1]		same as Display
EndOfLineFlag	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display
OutputBarcode	[0..1]		same as Display
BarcodeType	[0..1]		same as Display
BarcodeValue	[1..1]		same as Display

Message example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Device" MessageCategory="Print"
MessageType="Request"
        SaleID="SaleTermA" POIID="128" />
    <PrintRequest>
        <PrintOutput DocumentQualifier="CashierReceipt"
ResponseMode="NotRequired">
            <OutputContent OutputFormat="Text">
                <OutputText>
                ******************************
                BATCH TOTALS
                2013/11/27 14:31
                66000001

                ------------------------------
                66000001
                Aquirer01 Completion
                000837
                01
                123456789012345
                000004
                OPEN

                TOTAL 0.00 CAD

                ------------------------------
                66000001
                Aquirer02 Host Batch Transfer only

                000380
                02
                123456789012345
                000001
                OPEN

                TOTAL 0.00 CAD

                ------------------------------
```

```
                66000001
                Aquirer03 Main Host
                99
                000002
                CLOSED ACCEPTED


                TOTAL 0.00 CAD


                -------------------------------

                G.TOTAL 0.00 CAD



                -------------------------------

                * END *
                *******************************
              </OutputText>
            </OutputContent>
          </PrintOutput>
      </PrintRequest>
  </SaleToPOIRequest>
```

Input

Purpose of the Input message pair is to get some information from a user through the Sale to POI protocol.

⚠ The POS cannot use the Monetico POI to get information from the customer. **This message is from POI to POS only**. **The Monetico Terminal uses the input request only to get information from the Cashier during a POI Transaction**.

During the processing of a service request from the Sale Terminal, the POI Terminal must need to request some information to from the Cashier on using a display/input device pair managed by the Sale Terminal. The Sale terminal handles the Input device request and sends the response to the POI terminal in this case:

- Get confirmation that the cardholder has signed the merchant receipt. Parameter `InputCommand=GetConfimation`. The POS displays a question to the attendant, and waits for response "Yes" or "No". The data element `ConfirmedFlag` of the Input message response gives the answer to the question

Request

InputRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		"Device"
MessageCategory	[1..1]		Input
MessageType	[1..1]		Request
ServiceID	[0..1]		if requested inside a service
DeviceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
InputRequest	[1..1]		
DisplayOutput	[0..1]		Mandatory if the display device is managed by the receiver.
Device	[1..1]		CashierDisplay
InfoQualify	[1..1]		Display
OutputContent	[1..1]		
OutputFormat	[1..1]		Text
PredefinedContent	[0..1]		same as Display
ReferenceID	[1..1]		same as Display
Language	[0..1]		same as Display
OutputText	[0..n]		same as Display
Text	[1..1]		same as Display
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartRow	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display
CharacterWidth	[0..1]		same as Display
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display
Alignment	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display

InputRequest Component	Mult.	Profile	Rule
MenuEntry	[0..n]	S	Mandatory, if InputCommand is GetMenuEntry Not allowed, otherwise One instance of MenuEntry per item to display in the menu at this level
MenuEntryTag	[0..1]		default Selectable
DefaultSelectedFlag	[0..1]		default false.
OutputFormat	[1..1]		MessageRef, Text, XHTML
PredefinedContent	[0..1]		same as Display
ReferenceID	[1..1]		same as Display
Language	[0..1]		same as Display
OutputText	[0..n]		same as Display
Text	[1..1]		same as Display
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartRow	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display
CharacterWidth	[0..1]		same as Display
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display
Alignment	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display
OutputSignature	[0..1]		If protection has to be provided to the vendor on the text to display.
InputData	[1..1]		
Device	[1..1]		CashierInput
InfoQualify	[1..1]		Input
InputCommand	[1..1]		GetConfirmation
NotifyCardInputFlag	[0..1]		default false
MaxInputTime	[0..1]		Time limit for the InputResponse message.

InputRequest Component	Mult.	Profile	Rule
ImmediateResponseFlag	[0..1]		Not allowed if InputCommand is not GetAnyKey. default "true"
MinLength	[0..1]		Not allowed if InputCommand is not TextString, DigitString, DecimalString, Password or GetMenuEntry. Lower or equal to MaxLength.
MaxLength	[0..1]		Not allowed if InputCommand is not TextString, DigitString, DecimalString, Password or GetMenuEntry. Greater or equal to MinLength.
MaxDecimalLength	[0..1]		Not allowed if InputCommand is not DecimalString Greater than MinLength, lower than MaxLength.
WaitUserValidationFlag	[0..1]		default false
DefaultInputString	[0..1]		Not allowed if InputCommand is not TextString, DigitString, DecimalString or Password.
StringMask	[0..1]		Not allowed if InputCommand is not TextString, DigitString, DecimalString or Password.
FromRightToLeftFlag	[0..1]		Not allowed if InputCommand is not TextString, DigitString, DecimalString or Password. default false
MaskCharactersFlag	[0..1]		Not allowed if InputCommand is not TextString, DigitString or Password default false
BeepKeyFlag	[0..1]		default false
GlobalCorrectionFlag	[0..1]		Not allowed if InputCommand is not TextString, DigitString, Password or DecimalString default false
DisableCancelFlag	[0..1]		Not allowed if InputCommand is not GetConfirmation, SiteManager, or GetMenuEntry default false
DisableCorrectFlag	[0..1]		Not allowed if InputCommand is not GetConfirmation, SiteManager, or GetMenuEntry default false
DisableValidFlag	[0..1]		Not allowed if InputCommand is not GetConfirmation, SiteManager, or GetMenuEntry default false

InputRequest Component	Mult.	Profile	Rule
MenuBackFlag	[0..1]		Allowed for the GetMenuEntry value of InputCommand. default false

⚠️ `MaxInputTime` will be provided for the input message and the following behavior occurs.

GetConfirmation message (confirm cardholder signature)

- When the Maximum input time is reached, the POS must answer with `Result = Failure` and `ErrorCondition= Cancel`, but the POI will continue to request the POS to print receipt.
- If the POI does not receive any response, the POI will continue to request the POS to print receipt.

Response

InputResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Input
MessageType	[1..1]		Response
ServiceID	[0..1]		Copy
DeviceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
InputResponse	[1..1]		
OutputResult	[0..1]		If DisplayOutput present in the request.
Device	[1..1]		Copy
InfoQualify	[1..1]		Copy
Response	[1..1]		
Result	[1..1]		
ErrorCondition	[0..1]		same as PaymentResponse
AdditionalResponse	[0..1]		same as PaymentResponse
InputResult	[1..1]		
Device	[1..1]		Copy
InfoQualify	[1..1]		Copy
Response	[1..1]		
Result	[1..1]		
ErrorCondition	[0..1]		same as PaymentResponse
AdditionalResponse	[0..1]		same as PaymentResponse
Input	[0..1]		If Response.Result is Success
InputCommand	[1..1]		Copy
ConfirmedFlag	[0..1]		Mandatory, if InputCommand is GetConfirmation or SiteManager Not allowed, otherwise
FunctionKey	[0..1]		Mandatory, if InputCommand is GetFunctionKey Not allowed, otherwise

InputResponse Component	Mult.	Profile	Rule
TextInput	[0..1]		Mandatory, if InputCommand is TextString or DecimalString Not allowed, otherwise
DigitInput	[0..1]		Mandatory, if InputCommand is DigitString Not allowed, otherwise
Password	[0..1]		Mandatory, if InputCommand is Password Not allowed, otherwise
MenuEntryNumber	[0..n]		Mandatory, if InputCommand is GetMenuEntry Not allowed, otherwise

In case of failure of the POS system to process the input request, the following `ErrorCondition` parameter will be used

- `Cancel` : The user has aborted the input command, or a timeout occurs waiting for the user input
- `DeviceOut` : The input device is temporary or permanently out of service.
- `Busy` : The POI or Sale Terminal cannot process the Input request, because another request is already processed on this input device.

Message example

Request

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Device" MessageCategory="Input"
MessageType="Request"
        DeviceID="1374" SaleID="SaleTermA" POIID="POITerm1" />
    <InputRequest>
        <DisplayOutput Device="CashierDisplay" InfoQualify="Display">
            <OutputContent OutputFormat="Text">
                <OutputText>SIGNATURE REQUIRED</OutputText>
            </OutputContent>
        </DisplayOutput>
        <InputData Device="CashierInput" InfoQualify="Input" MaxInputTime="5"
            InputCommand="GetConfirmation" />
    </InputRequest>
</SaleToPOIRequest>
```

Response

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Device" MessageCategory="Input"
MessageType="Response"
        DeviceID="1374" SaleID="SaleTermA" POIID="POITerm1" />
    <InputResponse>
        <OutputResult Device="CashierDisplay" InfoQualify="Display">
        <Response Result="Success"/>
```

```
        </OutputResult>
        <InputResult Device="CashierInput" InfoQualify="Input">
            <Response Result="Success" />
            <Input InputCommand="GetConfirmation" />
            <ConfirmedFlag>true</ConfirmedFlag>
        </Input>
    </InputResult></InputResponse></SaleToPOIResponse>
```

Event Notifications

An Event Notification message is sent by the POI when:

- an event occurs related to the POI availability
  - POI shutdown has been requested
  - POI is starting
  - POI had lost TCP communication with the POS and the POI has recovered the communication
- The POI has performed, or want to perform an automatic administrative process
  - TMS call
  - Reconciliation
- In Entourage mode, the POI request the POS to send a payment request for a particular bill.

The Event notification message contains the following components:

1. The date and time when the event has occurred: `TimeStamp`.
2. The type of event that has occurred on the POI: `EventToNotify`.
3. Additional information on the event: `EventDetails`, which has to be logged and may contains for some events the same information than in `AdditionalResponse`.

Label	Description	Use case / Conditions
BeginMaintenance	Begin of POI Maintenance	When the terminal starts a reconciliation or a maintenance
EndMaintenance	End of POI Maintenance	
Shutdown	The POI Terminal or the POI System is shutting down	At shutdown of the terminal, when the POI must reboot after maintenance
Initialised	The POI Terminal or the POI System is now ready to work	After start / reboot of the POI after maintenance
OutOfOrder	The POI Terminal or the POI System cannot work	
Completed	An Abort request has been sent to abort a message which is already completed.	Abort of a payment was sent by the POS but the transaction could not be aborted
Abort	One or several device request has been sent by the POI during the processing of a service requested by the Sale System. The processing is cancelled by the Customer or stopped by the POI. If the device response is not received by the POI, an event is sent to inform the Sale to abort internally these device requests.	
SaleWakeUp	A POI terminal requests the payment of the transaction identified by the content of EventDetails in the Event notification.	
SaleAdmin	The POI has performed, or want to perform an automatic administrative process, e.g. the reports at the end of day.	Automatic reconciliation
CustomerLanguage	The customer has selected a different language on the POI.	

Label	Description	Use case / Conditions
KeyPressed	The customer has pressed a specific key on the POI.	
SecurityAlarm	Problem of security	
StopAssistance	When the Customer assistance is stopped, because the Customer has completed its input.	
CardInserted	A card is inserted in the card reader (see Input request and NotifyCardInputFlag)	
CardRemoved	A card is removed from the card reader.	
Reject	A message request is rejected. An error explanation and the message in error have to be put in the EventDetails data element.	Error management / incorrect message or POS is logged out

EventNotification Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Event
MessageCategory	[1..1]		Event
MessageType	[1..1]		Notification
DeviceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
EventNotification	[1..1]		
TimeStamp	[1..1]		
EventToNotify	[1..1]		
EventDetails	[0..1]		Mandatory for transaction identification when EventToNotify = "SaleWakeUp", "FunctionKeyPressed" or "SaleAdmin". Otherwise if present, the Sale logs it for further examination
RejectedMessage	[0..1]		Mandatory if EventToNotify is "Reject", absent in other cases
MaintenanceRequiredFlag	[0..1]		default false
CustomerLanguage	[0..1]		Mandatory when EventToNotify = "CustomerLanguage", otherwise absent.
DisplayOutput	[0..n]		To display an event message
Device	[1..1]		CashierDisplay
InfoQualify	[1..1]		Error
OutputContent	[1..1]		
OutputFormat	[1..1]		Text, XHTML
OutputText	[0..n]		same as Display
Text	[1..1]		same as Display
CharacterSet	[0..1]		same as Display
Font	[0..1]		same as Display
StartRow	[0..1]		same as Display
StartColumn	[0..1]		same as Display
Color	[0..1]		same as Display

EventNotification Component	Mult.	Profile	Rule
CharacterWidth	[0..1]		same as Display
CharacterHeight	[0..1]		same as Display
CharacterStyle	[0..1]		same as Display
Alignment	[0..1]		same as Display
OutputXHTML	[0..1]		same as Display
OutputSignature	[0..1]		If protection has to be provided to the vendor on the text to display.

Message example

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Event" MessageCategory="Event"
MessageType="Notification" DeviceID="1328" SaleID="SaleTermA" POIID="POITerm1"/>
    <EventNotification TimeStamp="2009-12-13T23:11:16.4+01:00"
EventToNotify="BeginMaintenance">
        <EventDetails>POITerm1 Maintenance: Parameters Update</EventDetails>
    </EventNotification>
</SaleToPOIRequest>
```

Administrative functions

Admin

Admin messages are used by the Sale System to select and start customised administrative services provided by the POI:

- Change a configuration parameter
- Generate a report

The `admin` command to execute is in the `AdminRequest.ServiceIdentification` parameter. Some of these commands have parameters, for example `fct=MENU_CASHBACK_ENABLE#enable=[YES|NO]`. You have to choose one the parameters between brackets : `fct=MENU_CASHBACK_ENABLE#enable=YES`

ServiceIdentification	Description	Display or print
fct=MENU_CONFIGURATION_REPORT	Configuration of the POI	Print
fct=MENU_DUPLICATE_EMV	Last EMV transaction	Print cashier or cardholder receipt
fct=MENU_DUPLICATE_CARDHOLDER	Reprint function	Print cardholder receipt
fct=MENU_DUPLICATE_MERCHANT	Reprint function	Print cashier receipt
fct=MENU_DUPLICATE_ALL	Reprint function	Print cashier AND cardholder receipt
fct=MENU_DUPLICATE_RECONCILIATION	Reprint function	Print last reconciliatiuon report
fct=MENU_DUPLICATE_TMS	Reprint function	Print last termnial management service report
fct=MENU_DUPLICATE_NOT_COMPLETED_TRANSACTIONS	Reprint function	Prints last uncaptured transactions
fct=MENU_CASHBACK_ENABLE#enable=[YES|NO]	Configuration to allow cahsback fct=MENU_CASHBACK_ENABLE&enable=NO	No
fct=MENU_TIP_ENABLE#enable=[YES|NO]	Configuration to allow tip	no
fct=MENU_ADMINISTRATION_TMS_GET_MGTP	Perform POI Maintenance	Prints TMS report after reboot
fct=MENU_ADMINISTRATION_SET_RECONCILIATION_PRINTING_MODE#mode=[DEFAULT|REDUCED|DETAILED]	Configuration for end of day reports	No
fct=MENU_REPORT_LIST_TRANSACTIONS#list=[COMPLETED|NOT_COMPLETED|ALL]	Printing transactions, etiher completed, not completed, or both	Prints transactions list
fct=MENU_ADMINISTRATION_DIAGNOSTIC	Local and remote network diagnosis	Prints POI network configuration and network configuration with the acquirer

Configuration report

This message will make the POI print its configuration report.

Request

AdminRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Admin
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
AdminRequest	[1..1]		AdminRequest
ServiceIdentification	[0..1]		fct=MENU_CONFIGURATION_REPORT

Response

AdminResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Admin
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
AdminResponse	[1..1]		AdminResponse
Response	[1..1]		
Result	[1..1]		
ErrorCondition	[0..1]		Same as PaymentResponse
AdditionalResponse	[0..1]		Same as PaymentResponse

Message example

Request

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="8752090438"
        MessageType="Request" MessageCategory="Admin" MessageClass="Service" />
    <AdminRequest>

 <ServiceIdentification>fct=MENU_CONFIGURATION_REPORT</ServiceIdentification>
    </AdminRequest>
</SaleToPOIRequest>
```

The POI then sends a print request to the POS

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Device" MessageCategory="Print"
MessageType="Request"
        ServiceID="8752090438" SaleID="" POIID="" />
    <PrintRequest>
        <PrintOutput DocumentQualifier="CashierReceipt"
ResponseMode="NotRequired">
            <OutputContent OutputFormat="Text">
                <OutputText>
                    *****************************************
                    CONFIGURATION
                    2013/11/27 14:32
                    66000001
```

```
----------------------------------------
TRANSACTIONS CAPABILITY
PAYMENT YES
CREDIT YES
REVERSAL YES

----------------------------------------
AID LIST
A0000003591010028001 girocard
D27600002547410100 girocard
A0000000043060 Maestro
A0000000041010 MasterCard
A0000000421010 CB EMV
A000000141 Bancomat
A0000000424010 CB EMV
A00000002501 American Express
A0000000031010 VISA
A0000000032010 Visa electron
A0000000032020 V PAY
A000000042 CB
A0000000043061 *********************

----------------------------------------
OS MODULE
MODULE VERSION
SYSTEM (3777) 26.16
MANAGER (844778) 72.05
M2OS (844592) 09.45
LINK LAYER (3628) 03.29
EMV ENGINE (3421) 04.68
EMV DC (3065) 04.65
TINJKEYS (TINJKEYS) 00.00

----------------------------------------
APP MODULE
MODULE VERSION
ENGINE (829778) 50.01
UI (829781) 50.01
SPED (829780) 50.01
HAP (829777) 50.01
SPEDEMV (829779) 50.01
HTTP SERVER (829731) 00.00
COREDLL (829775) 50.01

----------------------------------------
MEMORY
TOTAL RAM 016384Ko
RAM FREE 003540Ko
TOTAL FLASH 131072Ko
FLASH FREE 109658Ko

----------------------------------------
HARDWARE
PRODUCT NAME IPP3
SERIAL NUMBER 71167730
PRODUCT CODE M46
PRODUCT REF. 000013030000
```

```
                        MANUFACTURER INGENICO
                        MANUF. DATE 2012/07/23
                        PROFILE NBR 0035-001


                        VERSION FIRMWARE 0101
                        VERSION THUNDER 0109
                        VERSION BOOSTER 3000


                        -----------------------------------------
                        NETWORK
                        PHYSICAL ADDRESS 54-7F-54-1D-A8-CF
                        DHCP YES
                        IP ADDRESS 10.215.160.159
                        NETZORK MASK 255.255.255.0
                        GATEWAY 10.215.160.1
                        DNS SERVER 1 10.215.228.60
                        DNS SERVER 2 10.215.228.33


                        -----------------------------------------
                        TMS SERVER
                        HOST ID TMS Host
                        IP ADDRESS 10.215.160.42
                        PORT NUMBER 9029


                        -----------------------------------------

                        * FIN *
                        *****************************************
                    </OutputText>
                </OutputContent>
            </PrintOutput>
        </PrintRequest>
    </SaleToPOIRequest>
```

Response

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Admin"
MessageType="Response"
        ServiceID="8752090438" SaleID="SaleTermA" POIID="POITerminal1" />
    <AdminResponse>
        <Response Result="Success" />
    </AdminResponse>
</SaleToPOIResponse>
```

EMV ticket

Request

AdminRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Admin
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
AdminRequest	[1..1]		AdminRequest
ServiceIdentification	[0..1]		ReportLastTicketEMV

Response

AdminResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Admin
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
AdminResponse	[1..1]		AdminResponse
Response	[1..1]		
Result	[1..1]		
ErrorCondition	[0..1]		Same as PaymentResponse
AdditionalResponse	[0..1]		Same as PaymentResponse

Message example

Request

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="7010059504"
        MessageType="Request" MessageCategory="Admin" MessageClass="Service" />
    <AdminRequest>
        <ServiceIdentification>fct=MENU_DUPLICATE_EMV</ServiceIdentification>
    </AdminRequest>
</SaleToPOIRequest>
```

The POI sends a print request to the POS

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Device" MessageCategory="Print"
MessageType="Request"
        DeviceID="203" SaleID="" POIID="" />
    <PrintRequest>
        <PrintOutput DocumentQualifier="CashierReceipt"
ResponseMode="NotRequired">
            <OutputContent OutputFormat="Text">
                <OutputText>
                    ******************************
                    * PARAMETRES TRANSACTION EMV *
                    2013/11/27 14:31

                    66000001 012345678912345
                    VIS Merchant Name and Location


                    CARTE: VISA
                    NO. XXXXXXXXXXXX1133
                    AID: A0000000031010
                    APPL: Visa DEBIT

                    SEQ.: 000025

                    AMOUNT, AUTHORIZED: 1.00 EUR
                    AMOUNT, OTHER: 0.00 EUR

                    INTERFACE DEVICE SERIAL NUMBER:
                    71167730
                    TERMINAL COUNTRY CODE: 010
                    TERM APPLICATION VERSION NB:008C
                    TYPE TERMINAL: 22
                    TERMINAL CAPABILITIES: E0F0C8
                    TRANSACTION DATE: 2013/11/27
                    TRANSACTION TIME: 14:25
                    TRANSACTION CURRENCY CODE: 978
                    TRANSACTION TYPE: 00
                    TRANSACTION SEQ COUNTER: 0025
                    TRANSACTION STATUS INFO: FC00
                    UNPREDICTABLE NUMBER: 9E9C0464
                    APPL. INTERCHANGE PROFILE: 5C00
                    APPL. TRANSACTIONS COUNTER: 01F3
```

```
                     APPL. PAN SEQUENCE NUMBER: 01
                     CVM RESULTS: 410302
                     TVR: 4000000060
                     T/I-DENIAL:0410000000/0010000000
                     T/I-ONLINE:D84004F800/F040009800
                     T/I-DEF: DC4000F800/F040008800
                     CRYPTOGRAM INFORMATION DATA: 00
                     APPLICATION CRYPTOGRAM:
                     1C00EA08D400D829
                     ISSUER APPLICATION DATA:
                     06010A032C8900
                     ISSUER AUTHENTICATION DATA:
                     229E9DACB10FCDDE3030

                     * FIN *
                     *******************************
                 </OutputText>
             </OutputContent>
         </PrintOutput>
     </PrintRequest>
 </SaleToPOIRequest>
```

Response

```
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Admin"
MessageType="Response"
        ServiceID="7010059504" SaleID="SaleTermA" POIID="POITerminal1" />
    <AdminResponse>
        <Response Result="Success" />
    </AdminResponse>
</SaleToPOIResponse>
```

Batch Totals

The transactions totals provided in the Get Totals response are the transactions realised since the beginning of the current reconciliation period until the reception of the Get Totals request message. The current reconciliation period is never closed by the Get Totals exchange The Get Totals request contains the following information:

1. The way to compute and present the totals: `TotalDetails`
2. The filter of the transaction if any: `TotalFilter` For a particular `operatorID`

Request

GetTotalsRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		GetTotals
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
GetTotalsRequest	[1..1]		
TotalDetails	[0..1]		OperatorID If request to Group totals per OperatorID
TotalFilter	[0..1]		If structure is not empty
POIID	[0..1]		Present only if a filter is present
SaleID	[0..1]		If totals in the response have to be computed only for this particular value of SaleID
OperatorID	[0..1]		If totals in the response have to be computed only for this particular value of OperatorID
ShiftNumber	[0..1]		If totals in the response have to be computed only for this particular value of ShiftNumber
TotalsGroupID	[0..1]		If totals in the response have to be computed only for this particular value of TotalsGroupID

Response

MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		GetTotals
MessageType	[1..1]		Response
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
GetTotalsResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		
ErrorCondition	[0..1]		same as PaymentResponse
AdditionalResponse	[0..1]		same as PaymentResponse
POIReconciliationID	[1..1]		
TransactionTotals	[0..n]		if Response.Result is Success One set of totals per value of CardBrand and AcquirerID, …, TotalsGroupID if presents
PaymentInstrumentType	[1..1]		
AcquirerID	[0..1]		If available
HostReconciliationID	[0..1]		If available
CardBrand	[0..1]		If configured to present totals per card brand, and Response.Result is Success
POIID	[0..1]		If requested in the message request
SaleID	[0..1]		If requested in the message request
OperatorID	[0..1]		If requested in the message request
ShiftNumber	[0..1]		If requested in the message request
TotalsGroupID	[0..1]		If requested in the message request
PaymentCurrency	[0..1]		If payment record
PaymentTotals	[0..10]		Totals not equal to zero
TransactionType	[1..1]		Debit, Credit, ReverseDebit, ReverseCredit, CompletedDeffered, , CashAdvance, Failed, Declined
TransactionCount	[1..1]		
TransactionAmount	[1..1]		

MessageHeader	[1..1]		
LoyaltyUnit	[0..1]		default Point
LoyaltyCurrency	[0..1]		If LoyaltyUnit is Monetary
LoyaltyTotals	[0..6]		Totals not equal to zero
TransactionType	[1..1]		Award, ReverseAward, Redemption, ReverseRedemption, Rebate, ReverseRebate, Failed
TransactionCount	[1..1]		
TransactionAmount	[1..1]		

Message example

Request

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="GetTotals"
MessageType="Request"
        ServiceID="619" SaleID="SaleTermA" POIID="POITerm1" />
    <GetTotalsRequest>
        <TotalDetails>OperatorID</TotalDetails>
    </GetTotalsRequest>
</SaleToPOIRequest>
```

Print request from the POI to POS

```xml
<PrintOutput DocumentQualifier="CashierReceipt" ResponseMode="NotRequired">
    <OutputContent OutputFormat="Text">
        <OutputText>
            ******************************
            BATCH TOTALS
            2013/11/27 14:31
            66000001

            -------------------------------
            66000001
            Aquirer01 Completion
            000837
            01
            123456789012345
            000004
            OPEN

            TOTAL 0.00 CAD

            -------------------------------
            66000001
            Aquirer02 Host Batch Transfer only
```

```
            000380
            02
            123456789012345
            000001
            OPEN

            TOTAL 0.00 CAD

            -------------------------------
            66000001
            Aquirer03 Main Host
            99
            000002
            CLOSED ACCEPTED

            TOTAL 0.00 CAD

            -------------------------------
            G.TOTAL 0.00 CAD


            -------------------------------

            * END *
            *******************************
        </OutputText>
    </OutputContent>
</PrintOutput>undefined</PrintRequest>undefined</SaleToPOIRequest>
```

Response

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <MessageHeader MessageClass="Service" MessageCategory="GetTotals"
MessageType="Response"
        ServiceID="619" SaleID="SaleTermA" POIID="POITerm1" />
    <GetTotalsResponse POIReconciliationID="8927">
        <Response Result="Success" />
        <TransactionTotals PaymentInstrumentType="Card" AcquirerID="876355543"
            HostReconciliationID="98535" CardBrand="MasterCard"
PaymentCurrency="CAD">
            <PaymentTotals TransactionType="Debit" TransactionCount="61"
                TransactionAmount="4253.19" />
            <PaymentTotals TransactionType="Credit" TransactionCount="1"
                TransactionAmount="27.01" />
        </TransactionTotals>
        <TransactionTotals PaymentInstrumentType="Card" AcquirerID="876355543"
            HostReconciliationID="98535" CardBrand="Visa" PaymentCurrency="CAD">
            <PaymentTotals TransactionType="Debit" TransactionCount="45"
                TransactionAmount="744.79" />
        </TransactionTotals>
    </GetTotalsResponse>
</SaleToPOIResponse>
```

Diagnosis

The diagnosis message is used by the POS to have a status check of the POI. An optional flag (`HostDiagnosisFlag`) allows to test if the acquirer host is reachable by the terminal. The diagnosis will be printed on the Sale system.

Request

DiagnosisRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
ProtocolVersion	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		Diagnosis
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
DiagnosisRequest	[1..1]		
POIID	[0..1]		default MessageHeader.POIID
HostDiagnosisFlag	[0..1]		default false
AcquirerID	[0..n]		Present if requesting the diagnosis of these hosts only.

Response

Response

DiagnosisResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
ProtocolVersion	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		Diagnosis
MessageType	[1..1]		Response
ServiceID	[1..1]		Copy
SaleID	[1..1]		Copy
POIID	[1..1]		Copy
DiagnosisResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		
ErrorCondition	[0..1]		see PaymentResponse
AdditionalResponse	[0..1]		see PaymentResponse
LoggedSaleID	[0..n]		If Sale Terminal logged to this POI Terminal
POIStatus	[0..1]		if Response.Result is Success
GlobalStatus	[1..1]		
SecurityOKFlag	[0..1]		If security module present
PEDOKFlag	[0..1]		If PIN Entry Device present
CardReaderOKFlag	[0..1]		If card reader device present
PrinterStatus	[0..1]		If printer device present
CommunicationOKFlag	[0..1]		If communication infrastructure present
CashHandlingDevice	[0..n]		If cash handling devices present.
CashHandlingOKFlag	[1..1]		
Currency	[1..1]		
CoinsOrBills	[1..n]		
UnitValue	[1..1]		
Number	[1..1]		
FraudPreventionFlag	[0..1]		Default false

DiagnosisResponse Component	Mult.	Profile	Rule
HostStatus	[0..n]		If request.HostDiagnosisFlag is true
AcquirerID	[1..1]		
IsReachableFlag	[0..1]		default true

Message example

Request

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="1115442727"
        MessageType="Request" MessageCategory="Diagnosis" MessageClass="Service"
/>
    <DiagnosisRequest HostDiagnosisFlag="true" />
</SaleToPOIRequest>
```

Print request from the POI to the POS :

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Device" MessageCategory="Print"
MessageType="Request"
        ServiceID="1115442727" DeviceID="1375" SaleID="SaleTermA"
POIID="POITerm1" />
    <PrintRequest>
        <PrintOutput DocumentQualifier="CashierReceipt"
ResponseMode="NotRequired">
            <OutputContent OutputFormat="Text">
                <OutputText>
                *****************************************
                DIAGNOSIS
                2013/11/20 15:28
                25000221

                -----------------------------------------
                NETWORK
                ACTIVE YES
                PHYSICAL ADDRESS 54-7F-54-1D-A8-CF
                DHCP YES
                IP ADRESS 10.215.160.159
                NETWORK MASK 255.255.255.0
                GATEWAY 10.215.160.1
                DNS SERVER 1 10.215.228.60
                DNS SERVER 2 10.215.228.33

                -----------------------------------------
                ACQUIRER STATUS
                25000221
                CMCIC
```

```
                    010278
                    01
                    IP ADDRESS 145.226.35.25:9019
                    ACTIVE YES


                    ----------------------------------------

                    * END *
                    ****************************************
                </OutputText>
            </OutputContent>
        </PrintOutput>
    </PrintRequest>
</SaleToPOIRequest>
```

Response

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <MessageHeader ProtocolVersion="1.0" MessageClass="Service"
MessageCategory="Diagnosis"
        MessageType="Response" ServiceID="1115442727" SaleID="SaleTermA"
POIID="POITerminal1" />
    <DiagnosisResponse>
        <Response Result="Success" />
        <POIStatus GlobalStatus="OK" SecurityOKFlag="true" PEDOKFlag="true"
CardReaderOKFlag="true"
            PrinterStatus="false" CommunicationOKFlag="true" />
        <HostStatus AcquirerID="50265" IsReachableFlag="true" />
    </DiagnosisResponse>
</SaleToPOIResponse>
```

Transactions status

This service allows the POS to retrieve the status of the last transaction and reprint the associated receipts if requested The POI service (`ReceiptReprintFlag = true`). As the terminal is connected to one POS, it is not mandatory to give a reference to the transaction in the request.

Request

TransactionStatusRequest Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Service
MessageCategory	[1..1]		TransactionStatus
MessageType	[1..1]		Request
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
TransactionStatusRequest	[1..1]		
MessageReference	[0..1]		Optional
MessageCategory	[0..1]		Payment, , Reversal, Batch, Reconciliation
ServiceID	[0..1]		
DeviceID	[0..1]		
SaleID	[0..1]		default MessageHeader.SaleID
POIID	[0..1]		default MessageHeader.POIID
ReceiptReprintFlag	[0..1]		default false
DocumentQualifier	[0..2]		CustomerReceipt or CashierReceipt. Mandatory if ReceiptReprintFlag is true, otherwise absent.

Response

TransactionStatusResponse Component	Mult.	Profile	Rule
MessageHeader	[1..1]		
MessageClass	[1..1]		Copy
MessageCategory	[1..1]		TransactionStatus
MessageType	[1..1]		Response
ServiceID	[1..1]		
SaleID	[1..1]		
POIID	[1..1]		
TransactionStatusResponse	[1..1]		
Response	[1..1]		
Result	[1..1]		
ErrorCondition	[0..1]		same as PaymentResponse
AdditionalResponse	[0..1]		same as PaymentResponse
MessageReference	[0..1]		if Response.Result is Success (process in progress), and present in the request message
MessageCategory	[1..1]		
ServiceID	[0..1]		ServiceID of the requested transaction, if still in progress (to have the possibility to abort it from another Sale Terminal)
DeviceID	[0..1]		DeviceID of the requested transaction, if still in progress (to have the possibility to abort it from another Sale Terminal)
SaleID	[0..1]		Copy
POIID	[0..1]		Copy
RepeatedMessageResponse	[0..1]		If Result is Success (process completed)
MessageHeader	[1..1]		
RepeatedResponseMessageBody	[1..1]		
LoyaltyResponse	[0..1]		
PaymentResponse	[0..1]		
ReversalResponse	[0..1]		

TransactionStatusResponse Component	Mult.	Profile	Rule
StoredValueResponse	[0..1]		
CardAcquisitionResponse	[0..1]		
CardReaderAPDUResponse	[0..1]		

Message example

Request

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA" ServiceID="662"
MessageType="Request"
        MessageCategory="TransactionStatus" MessageClass="Service" />
    <TransactionStatusRequest ReceiptReprintFlag="true"
DocumentQualifier="CashierReceipt" />
</SaleToPOIRequest>
```

While the transaction status request is processed by the POI, a display request will be sent to the POS.

Response

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="TransactionStatus"
MessageType="Response"
        ServiceID="8466514174" SaleID="SaleTermA" POIID="POITerminal1" />
    <TransactionStatusResponse>
        <Response Result="Success" />
        <MessageReference MessageCategory="Payment" ServiceID="662"
SaleID="SaleTermA" />
        <RepeatedMessageResponse>
            <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
                ServiceID="8466514174" SaleID="SaleTermA" POIID="POITerminal1"
/>
            <PaymentResponse>
                <Response Result="Success" />
                <SaleData>
                    <SaleTransactionID TransactionID="1208948103"
                        TimeStamp="2013-11-27T14:25:54.000-04:00" />
                </SaleData>
                <POIData>
                    <POITransactionID TransactionID="000025"
                        TimeStamp="2013-11-27T14:25:17.000-04:00" />
                </POIData>
                <PaymentResult PaymentType="Normal">
                    <AmountsResp AuthorizedAmount="1.00" />
                    <PaymentAcquirerData MerchantID="" AcquirerID="458459"
AcquirerPOIID="66000001">
```

```xml
                    <ApprovalCode>032983</ApprovalCode>
                </PaymentAcquirerData>
            </PaymentResult>
        </PaymentResponse>
    </RepeatedMessageResponse>
  </TransactionStatusResponse>
</SaleToPOIResponse>
```

Then POI sends a print request to the POS in order to reprint the Cashier receipt.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Device" MessageCategory="Print"
MessageType="Request"
        SaleID="SaleTermA" ServiceID="662" POIID=" POITerminal1" />
    <PrintRequest>
        <PrintOutput DocumentQualifier="CashierReceipt"
ResponseMode="NotRequired">
            <OutputContent OutputFormat="Text">
                <OutputText>
                    VIS Merchant Name and Location


                    012345678912345
                    66000001
                    A0000000031010
                    Visa DEBIT
                    XXXXXXXXXXXX1133 01
                    27/11/2013 14:25:17
                    REF. 000025 REC. ID 000004
                    MONTANT
                    1.00 EUR
                    PAYMENT DECLINED

                    DUPLICATE

                    CASHIER RECEIPT
08/4000000060//DEFDD000/01/0000/01//032983/fr/1512/410302/01/E0F0C8/6000F0A000/0
10/22/000025/00/01
                </OutputText>
            </OutputContent>
        </PrintOutput>
    </PrintRequest>
</SaleToPOIRequest>
```

Use cases

Here we show the message flow in several use cases.

Communication management
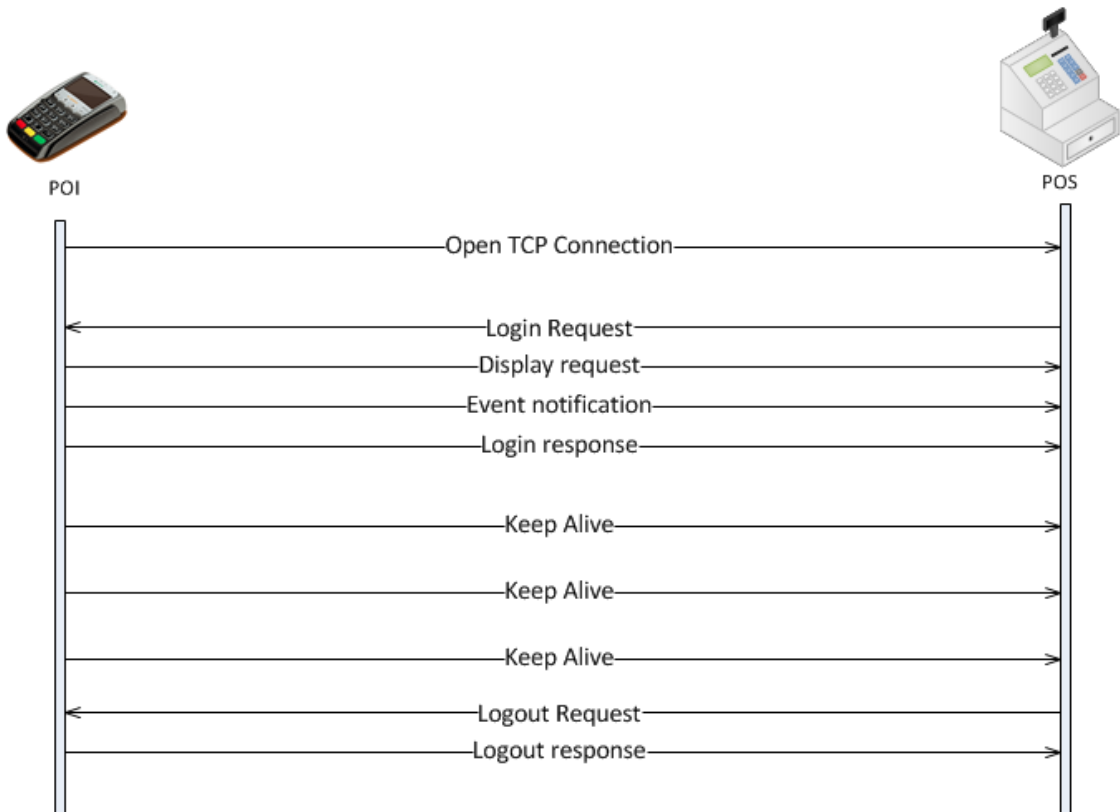
Payment
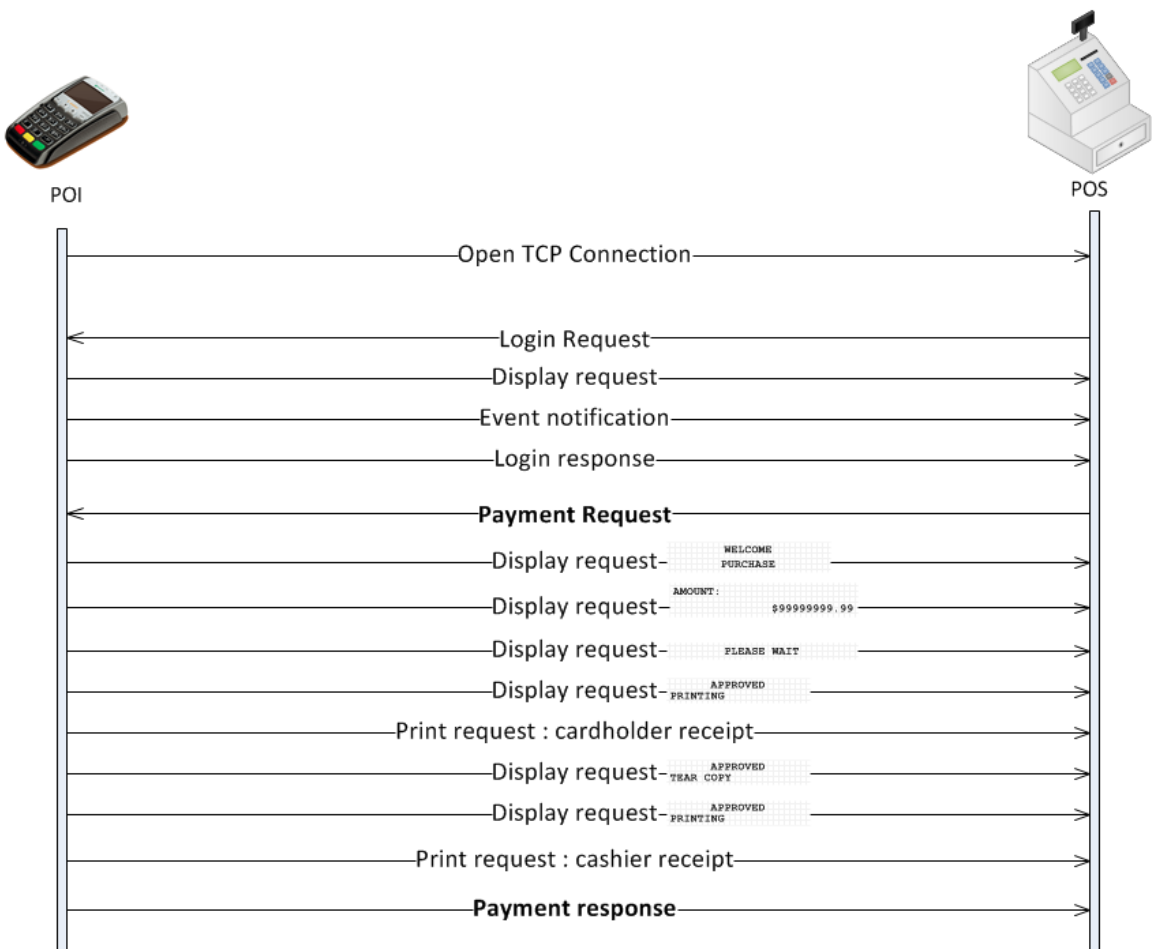
Reversal
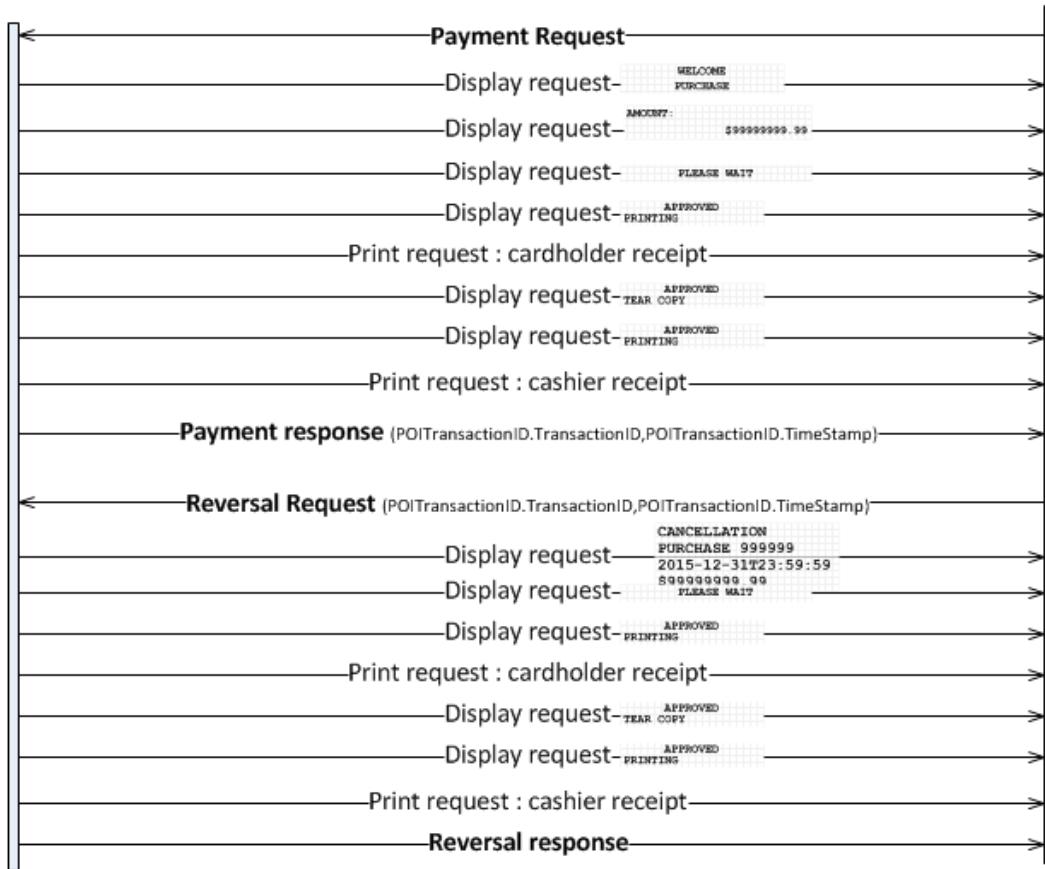
Reconciliation
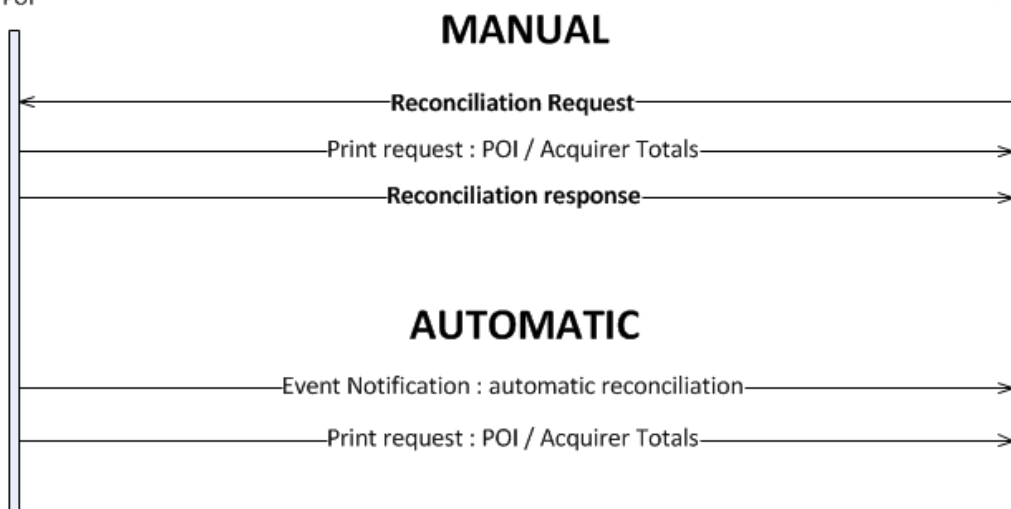
Entourage

Entourage mode allows the attendant to enter a bill ID on the payment terminal and then the POS sends the payment request for this bill. The payment amount can be smaller than the bill amount in case of the payment is split between several cards or cash. This mode is sometimes called "pay at the table" because commonly used restaurants

⚠ **It is the responsibility of the POS to manage the amounts in case of split payment and/or if**
several terminals are used at the same time.

The attendant enters a billing number (for example, in a restaurant, the table number) on the terminal.

The terminal then sends a notification to the POS with the EventToNotify "SaleWakeUp" and the bill ID in the eventDetails field. The POS will then send a payment request.

If the POS knows the Bill ID, the POS initiates a payment request with the terminal.

In case of split payment, subsequent notifications will be made to the POS, which will send payment requests with the appropriate remaining amount.

Depending on the status of the invoice in the POS, the POS can send an abort request with the abort reason code matching the bill status:

- Bill ID is unknown by the POS : BILLNF
- Bill has already been paid in full : PAIDIF

Example messages flow with a bill split over two card payments.
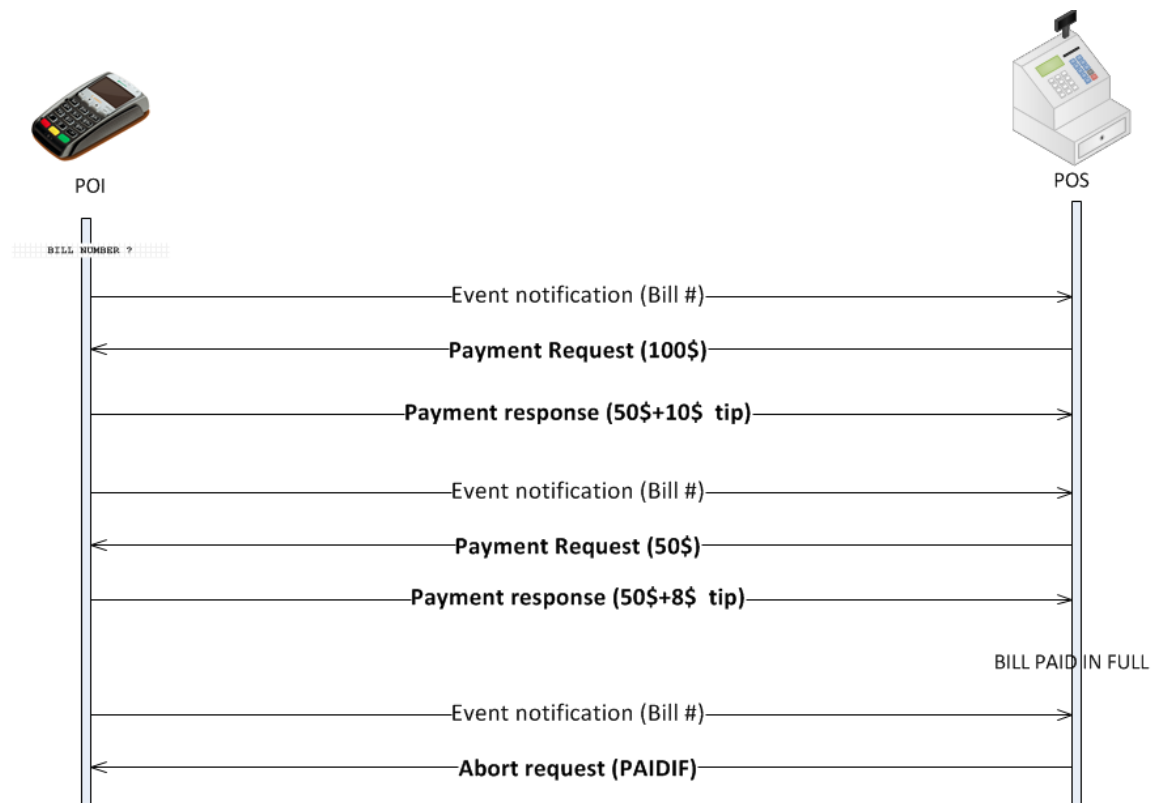
Message example

Request

Bill Request notification #1

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Event" MessageCategory="Event"
MessageType="Notification"
        DeviceID="1328" SaleID="SaleTermA" POIID="POITerm1" />
    <EventNotification TimeStamp="2013-11-20T15:00:01.200-05:00"
EventToNotify="SaleWakeUp">
        <EventDetails>123456</EventDetails>
    </EventNotification>
</SaleToPOIRequest>
```

Payment Request #1

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="8716631667"
        MessageType="Request" MessageCategory="Payment" MessageClass="Service"
/>
    <PaymentRequest>
        <SaleData>
            <SaleTransactionID TimeStamp="2013-11-20T15:00:14.500-05:00"
TransactionID="123456" />
        </SaleData>
        <PaymentTransaction>
            <AmountsReq RequestedAmount="100.00" Currency="CAD" />
        </PaymentTransaction>
        <PaymentData PaymentType="Normal" />
    </PaymentRequest>
</SaleToPOIRequest>
```

Bill Request notification #2

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Event" MessageCategory="Event"
MessageType="Notification"
        DeviceID="1328" SaleID="SaleTermA" POIID="POITerm1" />
    <EventNotification TimeStamp="2013-11-20T15:01:58.100-05:00"
EventToNotify="SaleWakeUp">
        <EventDetails>123456</EventDetails>
    </EventNotification>
</SaleToPOIRequest>
```

Payment Request #2

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="8716631668"
        MessageType="Request" MessageCategory="Payment" MessageClass="Service"
/>
    <PaymentRequest>
        <SaleData>
            <SaleTransactionID TimeStamp="2013-11-20T15:02:14.500-05:00"
TransactionID="123456" />
        </SaleData>
        <PaymentTransaction>
            <AmountsReq RequestedAmount="50.00" Currency="CAD" />
        </PaymentTransaction>
        <PaymentData PaymentType="Normal" />
    </PaymentRequest>
</SaleToPOIRequest>
```

Response

Payment response #1

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="8716631667" SaleID="SaleTermA" POIID="POITerminal1" />
    <PaymentResponse>
        <Response Result="Success" />
        <SaleData>
            <SaleTransactionID TimeStamp="2013-11-20T15:00:14.500-05:00"
TransactionID="123456" />
        </SaleData>
        <POIData>
            <POITransactionID TransactionID="000020" TimeStamp="2013-11-
20T15:00:51-05:00" />
        </POIData>
        <PaymentResult PaymentType="Normal">
            <AmountsResp AuthorizedAmount="50.00" TipAmount="10.00" />
            <PaymentAcquirerData AcquirerID="010278" AcquirerPOIID="25000221">
                <ApprovalCode>197194</ApprovalCode>
            </PaymentAcquirerData>
        </PaymentResult>
    </PaymentResponse>
</SaleToPOIResponse>
```

Payment response #2

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
```

```
    <MessageHeader MessageClass="Service" MessageCategory="Payment"
MessageType="Response"
        ServiceID="8716631668" SaleID="SaleTermA" POIID="POITerminal1" />
    <PaymentResponse>
        <Response Result="Success" />
        <SaleData>
            <SaleTransactionID TimeStamp="2013-11-20T15:02:14.500-05:00"
TransactionID="123456" />
        </SaleData>
        <POIData>
            <POITransactionID TransactionID="000021" TimeStamp="2013-11-
20T15:02:27-05:00" />
        </POIData>
        <PaymentResult PaymentType="Normal">
            <AmountsResp AuthorizedAmount="50.00" TipAmount="8.00" />
            <PaymentAcquirerData AcquirerID="010278" AcquirerPOIID="25000221">
                <ApprovalCode>197194</ApprovalCode>
            </PaymentAcquirerData>
        </PaymentResult>
    </PaymentResponse>
</SaleToPOIResponse>
```

Bill request notification #3

```
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Event" MessageCategory="Event"
MessageType="Notification"
        DeviceID="1328" SaleID="SaleTermA" POIID="POITerm1" />
    <EventNotification TimeStamp="2013-11-20T15:03:14.500-05:00"
EventToNotify="SaleWakeUp">
        <EventDetails>123456</EventDetails>
    </EventNotification>
</SaleToPOIRequest>
```

Abort request

```
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="8716631669"
        MessageType="Request" MessageCategory="Abort" MessageClass="Service" />
    <AbortRequest>
        <MessageReference MessageCategory="Payment" ServiceID="642" />
        <AbortReason>PAIDIF</AbortReason>
    </AbortRequest>
</SaleToPOIRequest>
```

Nomade

Nomade mode is used to accept payment for bills, when the terminal is disconnected from the POS, typically for delivery services.

In this mode, the POS load the terminal with a batch of bills.

The attendant can accept payments by entering the bill number and optionally its employee ID.

When the terminal is back and connected to the POS, the terminal will send event notifications to tell the POS the status of the transactions.

In the response, the POI might send:

- Transactions coming from several Batch request messages,
- Transactions not requested by the Sale system, but performed by the POI without connection to the
  Sale system.
- Split payment for one sale transaction
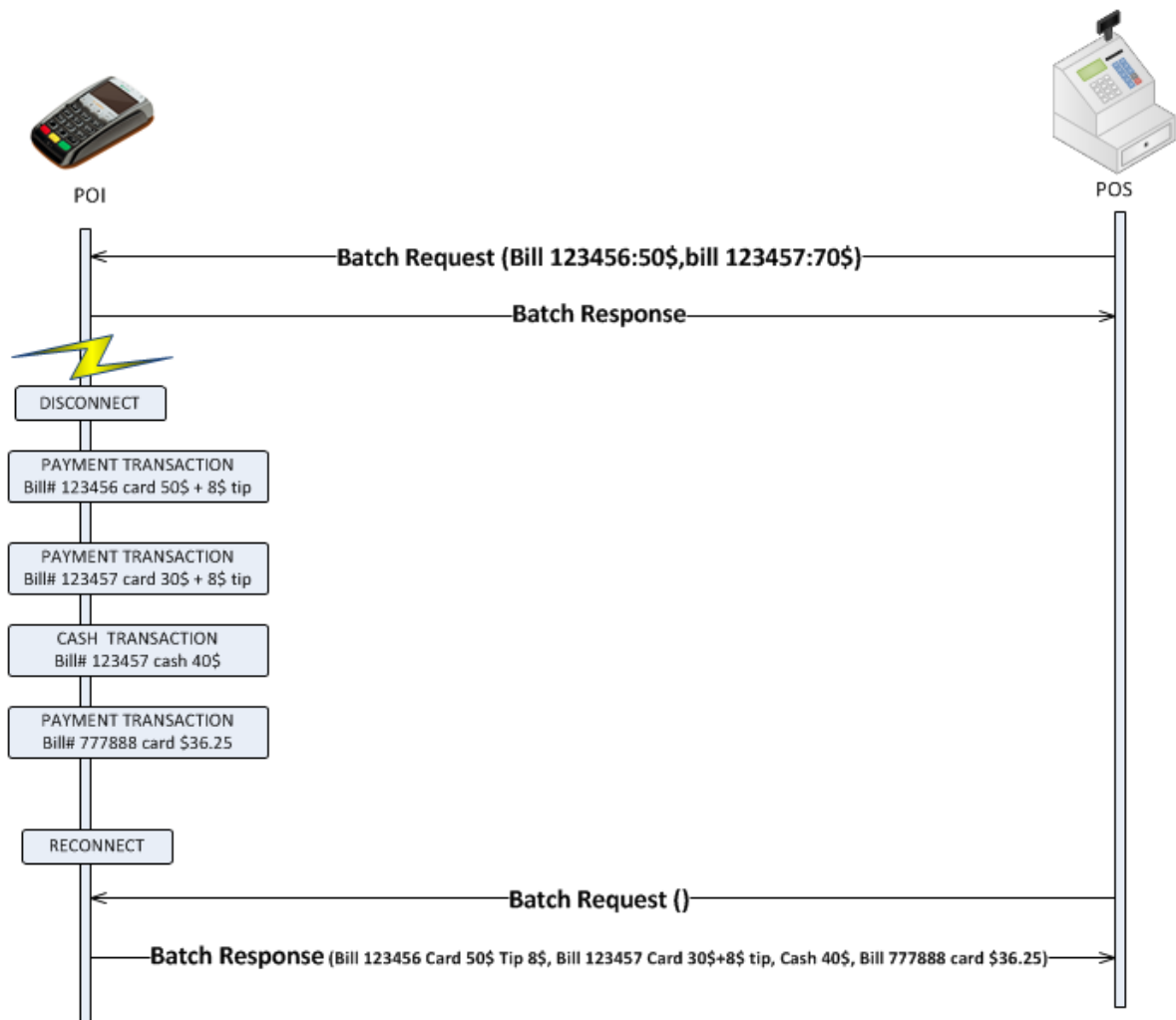
Request

Example #1

Load bills on the POI

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="8716631668"
        MessageType="Request" MessageCategory="Batch" MessageClass="Service" />
    <BatchRequest RemoveAllFlag="false">
        <TransactionToPerform>
            <PaymentRequest>
                <SaleData>
```

```xml
                    <SaleTransactionID TimeStamp="2013-11-20T15:02:14.500-05:00"
                        TransactionID="123456" />
                </SaleData>
                <PaymentTransaction>
                    <AmountsReq RequestedAmount="50.00" Currency="CAD" />
                </PaymentTransaction>
                <PaymentData PaymentType="Normal" />
            </PaymentRequest>
            <PaymentRequest>
                <SaleData>
                    <SaleTransactionID TimeStamp="2013-11-20T15:02:15.500-05:00"
                        TransactionID="123457" />
                </SaleData>
                <PaymentTransaction>
                    <AmountsReq RequestedAmount="70.00" Currency="CAD" />
                </PaymentTransaction>
                <PaymentData PaymentType="Normal" />
            </PaymentRequest>
        </TransactionToPerform>
    </BatchRequest>
</SaleToPOIRequest>
```

Example #2

Request the payment transactions performed by the POI and remove all bills not paid

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SaleToPOIRequest>
    <MessageHeader POIID="POITerminal1" SaleID="SaleTermA"
ServiceID="8716631668"
        MessageType="Request" MessageCategory="Batch" MessageClass="Service" />
    <BatchRequest RemoveAllFlag="true"></BatchRequest>
</SaleToPOIRequest>
```

Response

Example #1

Batch response: loading OK (no transaction performed)

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
    <MessageHeader MessageClass="Service" MessageCategory="Batch"
MessageType="Response"
        ServiceID="8716631668" SaleID="SaleTermA" POIID="POITerminal1" />
    <BatchResponse Result="Success"></BatchResponse>
</SaleToPOIResponse>
```

Example #2

Batch response with all transactions paid on the POI

```xml
<?xml version="1.0" encoding="UTF-8"?>
<SaleToPOIResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="EpasSaleToPOIMessages.xsd">
```

```xml
    <MessageHeader MessageClass="Service" MessageCategory="Batch"
MessageType="Response"
        ServiceID="8716631668" SaleID="SaleTermA" POIID="POITerminal1" />
    <BatchResponse Result="Success">
        <PerformedTransaction>
            <Response Result="Success" />
            <SaleData>
                <SaleTransactionID TimeStamp="2013-11-20T15:02:14.500-05:00"
                    TransactionID="123456" />
            </SaleData>
            <POIData>
                <POITransactionID TransactionID="000020" TimeStamp="2013-11-
20T15:02:27-05:00" />
            </POIData>
            <PaymentResult PaymentType="Normal">
                <AmountsResp AuthorizedAmount="50.00" TipAmount="8.00" />
                <PaymentAcquirerData AcquirerID="010278"
AcquirerPOIID="25000221">
                    <ApprovalCode>197194</ApprovalCode>
                </PaymentAcquirerData>
                <PaymentInstrumentData PaymentInstrumentType="Card" />
            </PaymentResult>
        </PerformedTransaction>
        <PerformedTransaction>
            <Response Result="Success" />
            <SaleData>
                <SaleTransactionID TimeStamp="2013-11-20T15:02:15.500-05:00"
                    TransactionID="123457" />
            </SaleData>
            <POIData>
                <POITransactionID TransactionID="000021" TimeStamp="2013-11-
20T17:02:27-05:00" />
            </POIData>
            <PaymentResult PaymentType="Normal">
                <AmountsResp AuthorizedAmount="30.00" TipAmount="5.00" />
                <PaymentAcquirerData AcquirerID="010278"
AcquirerPOIID="25000221">
                    <ApprovalCode>197195</ApprovalCode>
                </PaymentAcquirerData>
                <PaymentInstrumentData PaymentInstrumentType="Card" />
            </PaymentResult>
        </PerformedTransaction>
        <PerformedTransaction>
            <Response Result="Success" />
            <SaleData>
                <SaleTransactionID TimeStamp="2013-11-20T15:02:14.500-05:00"
                    TransactionID="123457" />
            </SaleData>
            <POIData>
                <POITransactionID TransactionID="000022" TimeStamp="2013-11-
20T17:04:27-05:00" />
            </POIData>
            <PaymentResult PaymentType="Normal">
                <AmountsResp AuthorizedAmount="40.00" />
                <PaymentInstrumentData PaymentInstrumentType="Cash" />
            </PaymentResult>
        </PerformedTransaction>
        <PerformedTransaction>
```

```xml
            <Response Result="Success" />
            <SaleData>
                <SaleTransactionID TimeStamp="2013-11-20T17:08:01.500-05:00"
                    TransactionID="777888" />
            </SaleData>
            <POIData>
                <POITransactionID TransactionID="000023" TimeStamp="2013-11-
20T17:08:27-05:00" />
            </POIData>
            <PaymentResult PaymentType="Normal">
                <AmountsResp AuthorizedAmount="36.25" />
                <PaymentAcquirerData AcquirerID="010278"
AcquirerPOIID="25000221">
                    <ApprovalCode>197198</ApprovalCode>
                </PaymentAcquirerData>
                <PaymentInstrumentData PaymentInstrumentType="Card" />
            </PaymentResult>
        </PerformedTransaction>
    </BatchResponse>
</SaleToPOIResponse>
```

🔖 Split payment for 1 POS sale, 1st payment : Card.

🔖 Bill not loaded by the POS, created by the POI.

Exceptions management

Message log

In order to support the system, we mandate the Sale system to maintain a transaction log containing all exchanges between the POS and the POI.

- Messages sent from the POS
- Messages received from the POI
- Event notification from the POS

General exception management

For Payment and reversal messages:

If the POS does not have a response from the POI, it must send a `TRANSACTIONSTATUS` message to the POI. There are 3 possibilities:

- `Success` : The payment response data is included in the message
- `In progress` : the POS can wait for the response or send an ABORT message
- `Not found` or no response from the POI : only manual procedures can manage the situation

For `ADMIN`, `LOGIN`, `RECONCILIATION`, `PRINT` and `INPUT` messages: It is up to the POS to have a dedicated error resolution process to manage the error cases using the available POI functions. For example :

- Repeat a login request
- Lookup POI event notifications to find out if a POI shutdown is in progress
- Send a DIAGNOSIS request
- ...etc

For `ADMIN`, `LOGIN`, `RECONCILIATION`, `PRINT` and `INPUT` requests: The request can be repeated or aborted depending on the use case. Repeating the request has no impact on the POI.

Lost POI response or time out

Apply the general exception management.

Lost communication with the POI

Use the event notification request log to have some diagnostic information

Unexpected reboot of the POI – Crash

If the POI reboots, no session is active. So that if the POS sends a request, the response will be "logged out". The POS will then need to send a new login request.

Abandoned transaction during a POI request

The transaction may be abandoned, for example if the cardholder cancels the transaction while the POI is awaiting a response to an `INPUT` request.

The POI then sends a notification event (`EventToNotify = ABORT`)

Then the POI sends the response to the POS request with (`Result=Failure` and `ErrorCondition=Cancel`)

The POS then must cancel the POI request and send a response to the POI with (`Result=Failure` and `ErrorCondition=Cancel`)

Timeouts

General exception management process apply when a timeout occur.

The POS must setup timeout parameters in order to allow POI to perform its functions without too many timeout failures.

The POS must also handle the KeepAlive message from the POI to reset its communication timeouts.

ePAS Messages not supported

- DISPLAY / PRINT / INPUT message from POS to PO
- INPUT UPDATE message from POI to POS and from POS to POI
- SOUND message from POI to POS and from POS to POI
- CARD READER message
- TRANSMIT message
- Stored Value messages
- Card acquisition messages
- Loyalty services
- Balance Inquiry messages
- Enable Service Messages

Acronyms and definitions

Acceptor: A retailer or any other entity, firm or corporation that enters into an agreement with an Acquirer to accept Card Transactions as payment for goods and services (including cash withdrawals) and displays the card schemes acceptance logo. The Payment will result in a transfer of funds in their favor. Sometimes also referred to as Merchant.

Acquirer: 'acquirer' means a payment service provider contracting with a payee to accept and process card-based payment transactions, which result in a transfer of funds to the payee;

Authorization: A Function which allows the Acceptor to make a decision to proceed with a Card Service or not. It can be processed off line by the Card Application or online to the Acquirer/Issuer or their agents. If processed online, the Authorization may also result in a partial approval.

Cancellation (Card Service): A Card Service which allows the card acceptor to cancel a previously approved transaction. Cancellation should only occur before the transaction is cleared to the issuer. It is sometimes called "Manual reversal". Its primary function is to prevent the transaction being processed and to readjust the Cardholder Available Funds.

Completion: A Function which provides information on how the transaction was completed. It includes all or some of the following steps:

- Complete the transaction for the Card Application
- Inform Cardholder, Attendant and/or Acquirer about the result of the transaction
- Deliver a receipt to Cardholder and/or Attendant

POI: Point of Interaction – An Acquirer dedicated application consisting of software and data used to perform a Card Service. It is the Monetico terminal. The POI is responsible for:

- Communication with the cardholder (EXCEPT in case of manual card entry)
- Card read (chip or magstripe)
- Cryptography
- Communication with the acquirer

POS: Point of Sale system: the system processing the purchase. The POS system is responsible for:

- Communication with the cashier
- Printing the cardholder receipt and the merchant receipt

Referral: A function where a Card Service is completed with a voice conversation to obtain an approval code. This Function does not necessarily involve the Card Application or the Cardholder.

Reversal: The partial or complete nullification of the effects of a previous Authorisation or Data Capture Transaction. A Reversal is sometimes also referred to as an authorisation adjustment.

Revision History

Changelog for ApiRetail 1.4.0 (02/2022)

- Enhancement - Add unit test for `XmlUtilis`
- Enhancement - Add unit test for `SaleToPoiRequestFactory`
- Security - Upgrade dependencies for **jackson**, **xerces** and **jaxb**
- Change - Refactor `XmlMapper()` and `xmlGregorianCalendar` initialization according to the new dependencies version
- Change - Hide all PCL functions visibility
- New - A new object has added called `ApiRetailUtils::object`, who contains the next functions `getPairedCompanion`, `isIngenicoDevice(addrr)`, `isCompanionConnected()`, `apiRetailVersionName`, `apiRetailCodeVersion`

- New - A new `ApiRetailServiceState::enum` has added used to track different service state
- New - A new interface has added who implement each functions `onServiceStateChanged(enum: ApiRetailServiceState)` who track service execution and `onServiceError(enum ; ApiRetailServiceState, error: String)` who called and retrieve all service errors
- Change - Adding new PCL-addon v2.15.00
- Enhancement - add permissions for android API 31
- BugFix - Potential fix for ANR

Changelog for ApiRetail 1.3.6 (11/2021)

- New - allow to customize the notification of the service running in background using `updateServiceNotification(smallIcon: Int, largeIcon: Bitmap?, title : String, description: String)`

Changelog for ApiRetail 1.3.5 (27/10/2021)

- Bugfix - fix **jacoco** problems due to the test coverage

Changelog for ApiRetail 1.3.4 (21/10/2021)

- Enhancement - Refactor for `TaskRunner::class` and migration to Coroutines
- New (Experimental) - added data class `TmsParameters(ipAddress: String, tcpPort: String, identifier: String, sslProfile: String)` used to simplify read and write action on TMS settings
- New (Experimental) - added `IOnTmsParameters::interface` callback used to get result from each actions read and write the **TMS** parameters of the current terminal by overriede the next functions : `onReadTmsParameters(tmsParameters: TmsParameters?)` and `onWriteTmsParameters(isSuccessful: Boolean)`, this interface must be implemented by the same activity who extend the `CommonsActivity` to update and write and read the terminal parameter using `lifecycleScope.setTmsParameters()` and `lifecycleScope.getTmsParameters()`
- New (Experimental) - added `CoroutineScope.setTmsParameters(callback: IOnTmsParameters, tmsParameters: TmsParameters)` : Asynchronous function used for set and update **TMS** parameters of the connected terminal
- New (Experimental) - added `CoroutineScope.getTmsParameters(callback: IOnTmsParameters)` : Asynchronous function used to get the current **TMS** parameter of the connected terminal
- New (Experimental) - added `IOnRemoteDownload::interface` callback used to get each update progress and result on finished by override the next functions : `onRemoteUpdateProgress(progress: Int)` and `onRemoteUpdateFinished(isSuccessful: Boolean)`, this interface must be implemented by the same activity who extend the `CommonsActivity` to make an update using `lifecycleScope.doRemoteUpdate()`

Changelog for ApiRetail 1.3.3 (09/2021)

- Enhancement - add deprecate annotation for old payment request functions
- Enhancement - Allow to get manual entry confirmation using `getConfirmationMessage(xmlInputStream: InputStream?) : String`
- New - Addin selling distance flag
- New - Adding payment request as Card Validity Check using

```
newCardValidityCheckRequest( messageHeader: MessageHeaderType,
transactionId: String ): SaleToPOIReques
```

- New - Adding payment request as No-Show using

```
newNoShowRequest( messageHeader: MessageHeaderType,
                  transactionId: String,
                  saleReferenceId: String?,
                  requestedAmount: Double,
                  operatorLanguage: String?,
                  initialTransactionId: String? ): SaleToPOIRequest
```

Changelog for ApiRetail 1.3.2 (08/2021)

- Enhancement - Improve PCL service life-cycle management
- BugFix   - Prevent crash when node is null on POI response

Changelog for ApiRetail 1.3.1 (07/2021)

- BugFix - Prevent crash when node is null on POI response
- BugFix - Fix completion reservation payment type

Changelog for ApiRetail 1.3.0 (06/2021)

- Enhancement - Kotlin migration for whole project

Changelog for ApiRetail 1.2.1 (05/2021)

- New : adding and manage payment request and response as *FirstReservation* using `newReservationRequest()`
- New : adding and manage payment request and response as *UpdateReservation* using `newUpdateReservationRequest()`
- New : adding and manage payment request and response as *CompletionReservation* using `newCompletionReservation()`
- Enhancement - Improve `getPaymentResult()` to make return `SaleReferenceId` and `ValidityDate`
- Change - Adding new PCL addon v2.13.00