

# INTEGRATION GUIDE

**mygate**

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This document is created for merchants and developers that want to integrate the Transaction Persistence Reporting. The document will provide you with all information required for a successful integration.

TPR  
version 2.1

## **Document Information**

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# INTRODUCTION

## Document Overview

This document is created for merchants and developers that want to integrate the Transaction Persistence Reporting solution. The document will provide you with all information required for a successful integration.

## Integration Support

### Merchants

If you are a merchant that has signed up with MyGate's TPR solution, you will have access to MyGate's Integration Help Desk for telephonic and email support. Telephonic support is available 8am to 5pm GMT +2. Email support is 8am to 5pm GMT + 2 and connects directly to our help desk through our ticketing system.

### Developers

If you are a developer that has registered on MyGate's developer website <http://developer.mygateglobal.com> you will have access to MyGate's Integration Help Desk for email support. Email support is 8am to 5pm GMT + 2 and connects directly to our help desk through our ticketing system.

If you send an email you will immediately be emailed back a reference to track your integration query.

### MyGate Developer Website – Online Information

Merchants and developers that have registered on MyGate's Developer website <http://developer.mygateglobal.com> will have access to developer forums, developer faqs and an extensive knowledge base as well as gaining access to the MyGate developer community.

Email: [integration@mygateglobal.com](mailto:integration@mygateglobal.com)

## Related Documentation

You may find additional documentation relating to TPR integration at <http://developer.mygateglobal.com>

- System Overviews
- Sample Code
- Test Centre

## Introduction to TPR

The Transaction Persistence Web Service is a secure date and time based web service designed to retrieve a merchants transactional information from the MyGate reporting database. The Web Service call is initiated by the Merchant, with the results being returned to the Merchant allowing for the transactional information to be populated into financial systems, ERP systems, additional databases or 3<sup>rd</sup> party applications.

## Communications Protocol

SOAP, originally defined as Simple Object Access Protocol, is a protocol specification for exchanging structured information in the implementation of Web Services in computer networks. It relies on eXtensible Markup Language (XML) as its message format, and usually relies on other Application Layer protocols (most

notably Remote Procedure Call (RPC) and HTTPS) for message negotiation and transmission. SOAP can form the foundation layer of a web services protocol stack, providing a basic messaging framework upon which web services can be built. This XML based protocol consists of three parts:

- An envelope - which defines what is in the message and how to process it.
- A set of encoding rules for expressing instances of application-defined datatypes.
- A convention for representing procedure calls and responses.

## Transaction Data Elements Returned

**This information includes:**

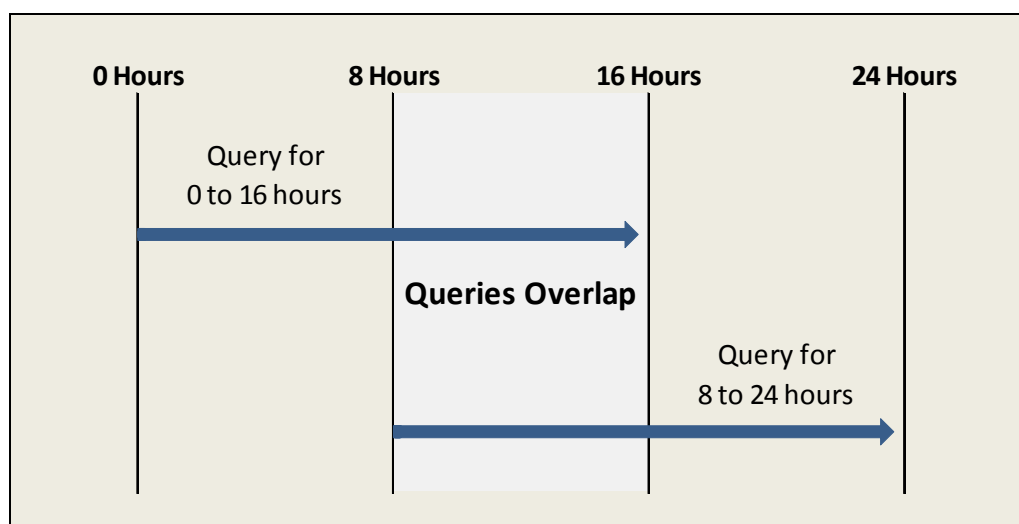
- Card Holder
- Card Number (First 6 and Last 4 Digits)
- Card Hash Value
- Card Type
- Authorization Code
- Merchant Reference
- Transaction Index
- Transaction Time Stamp
- Transaction Amount
- Refunded Amount
- Transaction Mode (Test or Live)
- Application Name
- Bank Response Code
- Bank Response Description
- IP Address
- IP Country
- BIN Country
- 3D-Secure Code
- 3D-Secure Description
- Secure Card ID
- Any additional custom field values submitted through Terminal

## Reporting Time Frames

The TPR query can be automated by a computer or viewed by a human; you can request this report as many times as you wish. You can request this report at any time during the day, starting up to 24 hours in the past and ending at the present time.

Because the query is passive, you can use it more than once with the same set of data. You are responsible for ensuring that orders that are converted are counted only once. For example, the figure below shows two queries for the same 24-hour period. The first query scans the immediate past 16 hours, whereas another query scans the past 8 to 24 hours. In the time period in which the queries overlap, you need to make sure that converted orders in one query are not counted also in the other query.

## Illustration: Reporting Overlapping



## TPR Features

- ✓ **Increased Data Integrity:** Ensures that your transactional data matches what has been processed through MyGate.
- ✓ **Automate Access to Data:** No longer a requirement to log into a Web Console to download transactional data to access current state of transactions.
- ✓ **Same Data Control:** Same functionality and control over credit card data.
- ✓ **Singular Integration:** The service can retrieve data from any of MyGate's credit card processing methods through a singular integration. Data from multiple applications can be retrieved through the web service.
- ✓ **Fewer Constrictions:** Operate without the burdensome required data controls and procedures.
- ✓ **Ease of Integration:** Seamlessly integrated into any IT environment enabling data to be transmitted to additional database sources.

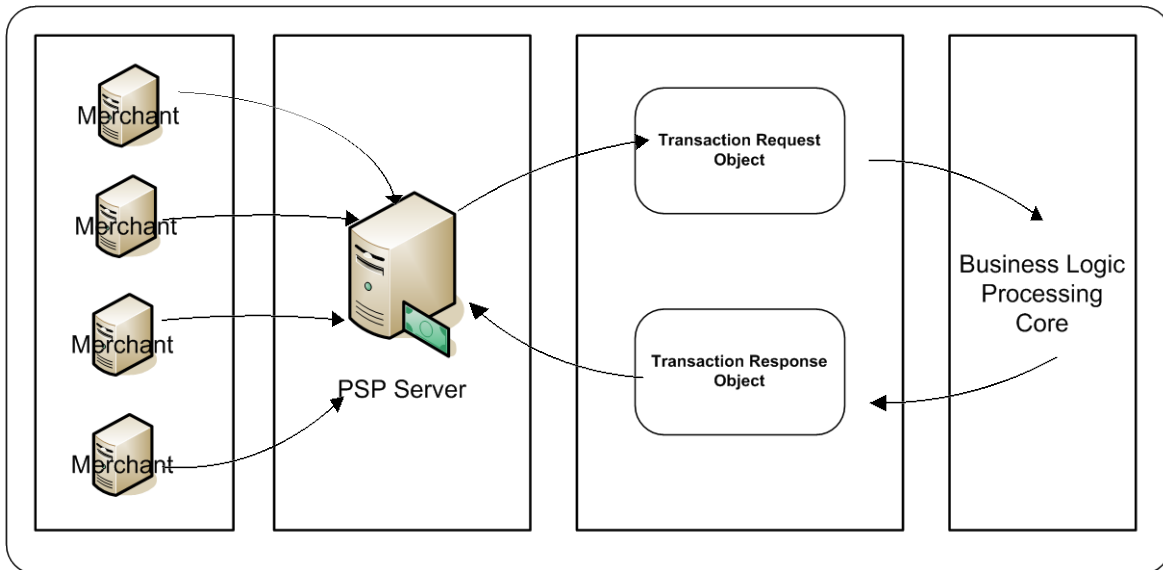
## TPR Transactional Process

The process flow can be described as follows:

- 1) The Service is invoked with the required information in the correct format.
- 2) The MyGate Persistence Engine accepts the request and performs the necessary validation checks on the submitted data.
- 3) The transactional information is retrieved from the database and compiled into an XML message.
- 4) The result, timestamp and xml message containing the transactional information is returned in an array format.

The below diagram provides a high level process flow of how the Transaction Persistence Report operates.





## General Requirements for Using TPR

- **Internet Merchant Account** – You are required to have a internet merchant account with a bank.
- **Internet Connectivity** – Internet connectivity is required to post the transaction.
- **Internet Service Provider (ISP)** – A ISP is required to host your site.
- **Static IP** – The web service is required to come from a static IP.
- **MyGate issued Customer ID and Application ID (for TPR)** – Required data elements when initiating your web service.

## Security – Server Passwords

You need to apply security best business practice to ensure that confidential data and card detail are protected while either being stored in the database or while data is being transmitted. It is suggested that you encrypt key information issued to you by MyGate such as customer ID, application ID and transaction index.

**Note:** To reduce fraud or potential incidents it is recommended to encrypt any passwords that give access to your server.

## SSL

SSL (Secure Socket Layer) is a security protocol that ensures that data being transmitted securely. You will be required to transmit the web service using SSL.

## INTEGRATION

### Configuring TPR

In the live environment, MyGate will be required to load the specific application that you want to perform TPR on. This will need to be done before going live.

## Preparation for Integration to TPR

You can follow the below steps to integrate your application to TPR:

1. Request that MyGate load your application to TPR.
2. Integrate your application. Ensure that you are using the correct Customer ID and Application ID issued to you. Ensure that there are test or live transactions that have been processed to ensure that you will receive transactional results when performing a TPR.

## Integration

This section will provide you with all the necessary information to begin your integration.

## Web Service URL

The Web Service URL is the MyGate URL used to submit the web service to.

Live URL's – <https://services.mygateglobal.com/wsPersistenceReport.wSDL>

## SPECIFICATION FORMAT

### The Transaction Pipeline Specification Format

This area of the document contains MyGate's Transaction Pipeline Specification Format for implementing TPR using MyGate's specification standards for processing all message types into MyGate. The transaction pipeline provides enough information necessary to build the message between the merchant and MyGate's system. All message types are managed within the Transaction Pipeline Specification.

#### Benefits

All merchants using MyGate' solutions or services utilize MyGate's transaction pipeline message standard.

## Transaction Pipeline Processing Terms and Acronyms

The Transaction Pipeline processing terms and acronyms are used in describing the logical flow of an message from one point to another. The following terms or acronyms are used in describing the Transaction Pipeline message format:

- Transaction Pipeline (TP)
- Request Data Element (RQE)
- Result Data Element (RSE)

## Transaction Pipeline Notations

The Transaction Pipeline Specification notations describe the Transaction Pipeline (TP) format.

The TP format is described with the following notations:

- Data Length
- Data Representation
- Date and Time
- Presence
- Presence Requirements

## Data Length Notations

Data length notations indicate the format of the data length.

Notation	Description
-digit(s)	Fixed length in number of positions. Example: "n-11" indicates a fixed-length numeric data element of 1–11 digits. Example: "an-10" indicates a 10-position alphanumeric data element.
...digit(s)	Variable length, with maximum number of positions specified. Example: "n...11" indicates a variable-length numeric data element of 1–11 digits. Example: "an...25" indicates a variable-length alphanumeric data element of 1–25 positions.

Notation	Description
LLVAR	Present with a variable-length data element attribute, indicates that the data element contains two fields:
LL	The length field and represents the number of positions in the variable-length data field that follows. The length field contains a value in the range 01–99.
VAR	The variable-length data field Example: "an...25; LLVAR" represents a variable-length alphanumeric data element with a length of 1–25 positions.
LLLVAR	Present with a variable-length data element attribute, indicates that the data element contains two fields:
LLL	The length field and represents the number of positions in the variable-length data field that follows. The length field contains a value in the range 001–999.
VAR	The variable-length data field Example: "an...500; LLLVAR" indicates a variable-length alphanumeric.

## Data Representation Notations

Data representation notations indicate how data is represented. All message data elements are aligned on byte boundaries. The following data types are encoded using EBCDIC, except for binary data.

Notation	Description
a	alphabetic characters A–Z and a–z
n	numeric digits 0–9
an	alphabetic and numeric characters (excluding spaces and special characters)
ans	alphabetic, numeric, space, and special characters
sp	Space
b	All binary data elements are constructed of bit-strings that have lengths that are an integral number of eight-bit bytes. No binary data element has a length of less than eight bits (one byte) “b-8” indicates a fixed-length binary field of eight characters (eight bytes, 64 bits).
s	special character

## Subfield Data Notations

Subfield Data notations indicate where additional subfield data exists in the data element.

Notation	Description
Contents of subfields	Subfield number or number range Example: Contents of subfields 1–8
Contents of position(s)	Position number or number range Example: Contents of positions 1–8
N/A	Not applicable

## Data Justification Notations

Data justification indicates the position of the data in the data element.

Notation	Description
<b>Left</b>	Data is left justified
<b>Right</b>	Data is right justified
<b>N/A</b>	Not applicable

## Date and Time Notations

Date and time notations indicate the format of the data that represents date and time.

Notation	Description
<b>MM</b>	month (two digits; 01–12)
<b>DD</b>	day (two digits; 01–31)
<b>YY</b>	year (last two digits of calendar year; 00–99)
<b>hh</b>	hour (two digits; 00–23)
<b>mm</b>	minute (two digits; 00–59)
<b>ss</b>	second (two digits; 00–59)

## Presence Notations

Presence notations indicate if and how data is present.

Notation	Description
<b>M</b>	Mandatory. The data element is required in the message.
<b>C</b>	Conditional. The data element is required in the message if the conditions described in the accompanying text apply.
<b>O</b>	Optional. The data element is not required, but may be included in the message at the message initiator's option.
<b>ME</b>	Mandatory Echo. The data element is required in a request message if it was present in the original request or response message, and it must contain the same value ("echoed") from the original request or response message.
<b>CE</b>	Conditional Echo. The data element is required in a request message if it was present in the original request or response message, and it must contain the same value ("echoed") from the original request or response message.
<b>3DE</b>	3D Secure Echo. The data element must contain the value from the original CMPI Response, if present.
<b>N/A</b>	Not Required or Not Applicable. The data element is not required or is not applicable.

## MESSAGE DEFINITION AND FLOWS

### List of Message Types

The below table represents the message types that the TP supports and indicates the entity that originates the message type. Message Identifiers (MI) are listed under the MI Column.

MTI	Message Type	Merchant	MyGate
0100	TPR Request	X	
0110	TPR Response		X

### Message Definitions

Message definitions describe the general purpose, type, routing, and response information of each System message type.

#### TPR Request

The TPR message requests transactional data from the reporting database.

Type	Data	
Request Process	Merchant	MyGate
	1	2
Response	A TPR Response is required.	

#### TPR Response

The TPR Response must be sent in response to an TPR Request message; it carries the transactional data request based on the requests criteria.

Type	Data	
<b>Response Process</b>	<b>Merchant</b>	<b>MyGate</b>
	2	1
<b>Response</b>	N/A	

## MESSAGE LAYOUT

### Message Type Layouts

This section describes the mandatory, conditional, optional data element layouts for all messages that the Transaction Pipeline supports for the TPR Solution.

### Message Request Layout

The below are data elements applicable to this message.

DE ID	Data Element Name	Presence	Comments
1	MerchantID	M	Each merchant is given a Merchantid. This will identify the merchant on MyGate's Back Office system.
2	ApplicationID	M	Each merchant is issued with an Application ID by MyGate. The application ID is linked to your website or application. A merchant can have multiple Application ID's. The Application ID is linked to the Merchantid.
3	TransactionIndex	C	The transaction index is a unique identifier created by MyGate for a each transaction for tracking and reconciliation purposes. The transaction index is mandatory for certain message types.
4	DateFrom	C	This field needs to be sent through if you want to retrieve all transactions within a time period.
5	DateTo	O	This field needs to be sent through for a valid date range of transactions to return. If this variable is not sent through, the Transactional Persistence Engine will default this value to the current DateTime.

### Message Response Layout

The below are data elements applicable to this message.

DE ID	Data Element Name	Presence	Comments
6	Result	M	This response field indicates the result of the TPR request.
7	TransactionData	C	This is the transaction data is information related to a specific transaction.
8	AcquirerDateTime	M	This is the time and date that the TPR request was processed by MyGate.
9	TransactionIndex	M	This is the transaction index related to the TPR web service call performed.
10	ErrorCode	C	In the event that Result data element fails (-1) this data element will describe the failure reason.

## DATA ELEMENTS

### Data Elements Overview

Data Elements are used to form a message type and either be populated by merchant (request) or by MyGate (Response) in the transaction pipeline. In the message type layout they are described numerically under the **DE ID** header. The below outlines the **entire** data element listing that applies to all message types throughout all of MyGate’s solutions.

## Data Element Layout

Following is the data element structure for describing data elements.

Attributes	Data
Length of Field:	Indicates a distinct or variable in length
Data Length:	Annotation and data length (fixed or variable in length)
Data Justification:	Left, Right, or N/A
Subfields:	Indicates number of subfields or N/A
<b>Usage</b>	
Following is the usage of DE # (whether it is mandatory, conditional, optional, system provided, or not required) in applicable messages:	
Message Types application to data field	Presence Value
<b>Interface Methods:</b>	Interface Listing
<b>Values</b>	Valid values and names of values listed.

## Subfield Data Layout

Following is the data element structure for describing subfield data elements.

Attributes	Data
Sub Element ID	The ID attributed to the sub element.
Length of Field:	Indicates a distinct or variable in length
Data Length:	Annotation and data length (fixed or variable in length)
Data Justification:	Left, Right, or N/A
Subfields:	Indicates number of subfields or N/A
<b>Usage</b>	
Following is the usage of DE # (whether it is mandatory, conditional, optional, system provided, or not required) in applicable messages:	
Message Types application to data field	Presence Value
<b>Interface Methods:</b>	Interface Listing
<b>Values</b>	Valid values and names of values listed.

## Data Elements Definitions

The following lists all the available data elements and any subfields linked to these data elements.

<b>DE 1 - Customer ID</b>	
Each merchant is issued a Customer ID by MyGate. This will identify the merchant on MyGate's Back Office system.	

<b>Attributes</b>	<b>Data</b>
Length of Field	36
Data Length	ans-36
Data Justification	N/A
Subfields	N/A
Input Parameter	MerchantID
<b>Usage</b>	
Following is the usage of DE 1 (whether it is mandatory, conditional, optional, system provided, or not required) in applicable messages:	
	<b>Presence</b>
Message Request	M
<b>Values</b>	
The customer ID was issued to you by MyGate on registration.	
<b>Example Data:</b>	
<b>DE 2 - Application ID</b>	
Each merchant is issued with an Application ID by MyGate. The application ID is linked to your website or application. The Application ID is linked to the Customer ID.	
<b>Attributes</b>	<b>Data</b>
Length of Field	36
Data Length	ans-36
Data Justification	N/A
Subfields	N/A
Input Parameter	ApplicationID
<b>Usage</b>	
Following is the usage of DE 2 (whether it is mandatory, conditional, optional, system provided, or not required) in applicable messages:	
	<b>Presence</b>
Message Request	M
<b>Values</b>	
The Application ID value was issued to you by MyGate.	
<b>Example Data:</b>	
<b>DE 3 - Transaction Index</b>	
The transaction index is a unique identifier created by MyGate for a each transaction for tracking and reconciliation purposes.	
<b>Attributes</b>	<b>Data</b>
Length of Field	36
Data Length	ans-36
Data Justification	N/A
Subfields	N/A
Input Parameter	TransactionIndex
<b>Usage</b>	
Following is the usage of DE 2 (whether it is mandatory, conditional, optional, system provided, or not required) in applicable messages:	
	<b>Presence</b>



Message Request	C - Required if no Date From is specified
Message Request	M
<b>Values</b>	
This data element must contain a valid transaction index that MyGate generated from a Authorization Response.	
<b>Example Data:</b>	7E4FEF88-DAC0-4CAE-B57A-129F3F369B07
<b>DE 4 - Date From</b>	
This field needs to be sent through if you want to retrieve all transactions within a time period.	
<b>Attributes</b>	<b>Data</b>
Length of Field	16
Data Length	ns-16
Data Justification	N/A
Subfields	N/A
Input Parameter	DateFrom
<b>Usage</b>	
Following is the usage of DE 2 (whether it is mandatory, conditional, optional, system provided, or not required) in applicable messages:	
	<b>Presence</b>
Message Request	C - Required if no Transaction Index is specified
<b>Values</b>	
Date and time format is yyyy/MM/ddhh:mm	
<b>Example Data:</b>	2012/06/15/12:12
<b>DE 5 - Date To</b>	
This field needs to be sent through for a valid date range of transactions to return. If this variable is not sent through, the Transactional Persistence Engine will default this value to the current DateTime.	
<b>Attributes</b>	<b>Data</b>
Length of Field	16
Data Length	n-16
Data Justification	N/A
Subfields	N/A
Input Parameter	DateTo
<b>Usage</b>	
Following is the usage of DE 2 (whether it is mandatory, conditional, optional, system provided, or not required) in applicable messages:	
	<b>Presence</b>
Message Request	O - If this variable is not sent through, the Transactional Persistence Engine will default this value to the current DateTime.
<b>Values</b>	
Date and time format is yyyy/MM/ddhh:mm	
<b>Example Data:</b>	2012/06/15/12:12
<b>DE 6 - Result</b>	
This response field indicates the result of the TPR request.	
<b>Attributes</b>	<b>Data</b>
Length of Field	2

Data Length	n...2
Data Justification	N/A
Subfields	N/A
Input Parameter	Result
<b>Usage</b>	
Following is the usage of DE 2 (whether it is mandatory, conditional, optional, system provided, or not required) in applicable messages:	
	<b>Presence</b>
Message Response	M
<b>Values</b>	
Date and time format is yyyy/MM/ddhh:mm	
<b>Data Value</b>	<b>Data Presentation</b>
-1	Failure
0	Successfull
<b>DE 7 - Transaction Data</b>	
Transaction data is information related to a specific transaction.	
<b>Attributes</b>	<b>Data</b>
Length of Field	max
Data Length	ans...max
Data Justification	N/A
Subfields	19
Input Parameter	TransactionData
<b>Usage</b>	
Following is the usage of DE 2 (whether it is mandatory, conditional, optional, system provided, or not required) in applicable messages:	
	<b>Presence</b>
Message Response	C
<b>Values</b>	
No data is present in this field. All data is presented in subfields.	
<b>Subfield 1 - Card Holder</b>	
This is the name of the card holder.	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	ans...255
Data Justification	N/A
Data Field	Contents of position 1
<b>Values</b>	
The value will be the name on the card.	
<b>Example Data</b>	John Doe
<b>Subfield 2 - Merchant Reference</b>	
The is the reference submitted by the merchant.	
<b>Attributes</b>	<b>Data</b>

Length of Field	38
Data Length	ans...38
Data Justification	N/A
Data Field	Contents of position 2
<b>Values</b>	
The reference created and submitted by merchant.	
<b>Example Data</b>	INV123
<b>Subfield 3 - Transaction Reference</b>	
This is the original transaction reference created by MyGate for this transaction.	
<b>Attributes</b>	<b>Data</b>
Length of Field	36
Data Length	ans...36
Data Justification	N/A
Data Field	Contents of position 3
<b>Values</b>	
A unique reference created by MyGate.	
<b>Example Data</b>	7E4FEF88-DAC0-4CAE-B57A-129F3F369B07
<b>Subfield 4 - Time and Date Stamp</b>	
Defines the acquirer date and time of the transaction.	
<b>Attributes</b>	<b>Data</b>
Length of Field	22
Data Length	ns-22
Data Justification	N/A
Data Field	Contents of position 4
<b>Values</b>	
Must be year/month/day and then time.	
<b>Example Data</b>	YYYY/MM/DD 11:42:10 AM
<b>Subfield 5 - Card Number</b>	
This is first four and last six digits of the card number.	
<b>Attributes</b>	<b>Data</b>
Length of Field	19
Data Length	n...19
Data Justification	N/A
Data Field	Contents of position 5
<b>Values</b>	
The card number is hashed.	
<b>Example Data</b>	411111*****1111
<b>Subfield 6 - Transaction Amount</b>	
This is the amount in value of the transaction.	
<b>Attributes</b>	<b>Data</b>

Length of Field	9
Data Length	n...9
Data Justification	N/A
Data Field	Contents of position 6
<b>Values</b>	
The value will always have two decimals.	
<b>Example Data</b>	1.00
<b>Subfield 7 - Credit Amount</b>	
In the event that the transaction was refunded this is the amount in value of the credit.	
<b>Attributes</b>	<b>Data</b>
Length of Field	9
Data Length	n...9
Data Justification	N/A
Data Field	Contents of position 7
<b>Values</b>	
The value will always have two decimals.	
<b>Example Data</b>	1.00
<b>Subfield 8 - Live Transaction</b>	
This identifies whether the transaction was a live or test transaction.	
<b>Attributes</b>	<b>Data</b>
Length of Field	5
Data Length	a...5
Data Justification	N/A
Data Field	Contents of position 8
<b>Values</b>	
<b>Data Value</b>	<b>Data Presentation</b>
TRUE	Option 1
FALSE	Option 2
<b>Subfield 9 - Transaction Status</b>	
This identifies the state of the transaction.	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	as...255
Data Justification	N/A
Data Field	Contents of position 9
<b>Values</b>	
<b>Example Data</b>	Authorized

<b>Subfield 10 - Application Name</b>	
This is the name given to the merchant application within the MyGate system.	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	ans...255
Data Justification	N/A
Data Field	Contents of position 10
<b>Values</b>	
The application name often reflects the website url name.	
<b>Example Data</b>	<a href="http://www.shopping.co.za">www.shopping.co.za</a>
<b>Subfield 11 - Bank Response Code</b>	
This is the response code returned by the bank.	
<b>Attributes</b>	<b>Data</b>
Length of Field	2
Data Length	n-2
Data Justification	N/A
Data Field	Contents of position 11
<b>Values</b>	
Refer to Bank Response codes for a list of response codes.	
<b>Example Data</b>	51
<b>Subfield 12 - Bank Response Status</b>	
The result code indicates whether the transaction was successful or failed.	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	ans...255
Data Justification	N/A
Data Field	Contents of position 12
<b>Values</b>	
The transaction request will include a successful, failed or succesful with warning data element.	
<b>Data Value</b>	<b>Data Presentation</b>
0	Successful
-1	Failed
1	Successful with Warning
<b>Subfield 13 - Card Type</b>	
This is the card type or also known as the association type.	
<b>Attributes</b>	<b>Data</b>
Length of Field	50
Data Length	as...50
Data Justification	N/A
Data Field	Contents of position 13
<b>Values</b>	

The value will associated to the card type processed.	
<b>Example Data</b>	Visa
<b>Subfield 14 - IP Address</b>	
This is a value extracted out of the cardholders browser when they are on the merchants payment page.	
<b>Attributes</b>	<b>Data</b>
Length of Field	15
Data Length	n...15
Data Justification	N/A
Data Field	Contents of position 14
<b>Values</b>	
This will only be displayed if this information was submitted by merchant in the authorization.	
<b>Example Data</b>	172.16.32.182
<b>Subfield 15 - IP Country</b>	
This is the country that the IP originated from.	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	ans...255
Data Justification	N/A
Data Field	Contents of position 15
<b>Values</b>	
This will only be displayed if this is a recognized IP in MyGate's database.	
<b>Example Data</b>	United Kingdom
<b>Subfield 16 - BIN Country</b>	
This is the country where the BIN originated.	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	ans...255
Data Justification	N/A
Data Field	Contents of position 16
<b>Values</b>	
This will only be displayed if this is a recognized BIN in MyGate's database.	
<b>Example Data</b>	United Kingdom
<b>Subfield 17 - 3D Secure Code</b>	
This is the ECI indicator returned from the ACS during a 3D Secure transactional process.	
<b>Attributes</b>	<b>Data</b>
Length of Field	2
Data Length	n-2
Data Justification	N/A
Data Field	Contents of position 17
<b>Values</b>	

This will only be displayed if a 3D Secure transaction was performed to the ACS.	
<b>Example Data</b>	7
<b>Subfield 18 - 3D Secure Status</b>	
This is an indicator showing whether the 3D Secure transaction was successful.	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	ans...255
Data Justification	N/A
Data Field	Contents of position 18
<b>Values</b>	
This will only be displayed if a 3D Secure transaction was performed to the ACS.	
<b>Example Data</b>	Non 3D Secure
<b>Subfield 19 - Custom Fields</b>	
These are custom fields created in My Terminal	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	ans...255
Data Justification	N/A
Data Field	Contents of position 18
<b>Values</b>	
This will only be displayed if custom fields were used in My Terminal.	
<b>Example Data</b>	Ticket 12345
<b>DE 8 - Time and Date - TPR</b>	
This is the time and date that the TPR request was processed by MyGate.	
<b>Attributes</b>	<b>Data</b>
Length of Field	22
Data Length	ns-22
Data Justification	N/A
Subfields	N/A
Input Parameter	AcquirerDateTime
<b>Usage</b>	
Following is the usage of DE 2 (whether it is mandatory, conditional, optional, system provided, or not required) in applicable messages:	
	<b>Presence</b>
Message Response	M
<b>Values</b>	
Must be year/month/day and then time.	
<b>Example</b>	2010/05/27 16:06
<b>DE 9 - Transaction Index - TPR</b>	
This is the transaction index related to the TPR web service call performed.	

<b>Attributes</b>	<b>Data</b>
Length of Field	36
Data Length	ans...36
Data Justification	N/A
Subfields	N/A
Input Parameter	TransactionIndex
<b>Usage</b>	
Following is the usage of DE 2 (whether it is mandatory, conditional, optional, system provided, or not required) in applicable messages:	
	<b>Presence</b>
Message Response	M
<b>Values</b>	
This is a Unique Identifier that uniquely identifies the request and can be used at a later stage for reconciliation should the need arise.	
<b>Example</b>	7E4FEF88-DAC0-4CAE-B57A-129F3F369B07
<b>DE 9 - Error Code</b>	
This variable will only be populated and returned in the event of an error.	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	ans...255
Data Justification	N/A
Subfields	N/A
Input Parameter	ErrorCode
<b>Usage</b>	
Following is the usage of DE 2 (whether it is mandatory, conditional, optional, system provided, or not required) in applicable messages:	
	<b>Presence</b>
Message Response	C
<b>Values</b>	
This is a Unique Identifier that uniquely identifies the request and can be used at a later stage for reconciliation should the need arise.	
<b>Example</b>	ErrorCode  1056  Reporting Validation_0.0.1  SSL Required  This service must be called using SSL (https). If this problem persists, please contact Support at techsupport@mygateglobal.com
<b>Subfield 1 - Result Description</b>	
The Result Description states the transaction is in a error state.	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	a...255
Data Justification	N/A
Data Field	Contents of position 1
<b>Values</b>	
The values will include a message description.	
<b>Data Value</b>	<b>Data Presentation</b>
ErrorCode	Option 1



<b>Subfield 2 - Response Code</b>	
Response codes are only provided in the event that an error result description is received in DE 33 SE 1.	
<b>Attributes</b>	<b>Data</b>
Length of Field	4
Data Length	n...4
Data Justification	N/A
Data Field	Contents of position 2
<b>Values</b>	
Refer MyGate's listing of Bank Response Codes and MyGate Response Codes	
<b>Example Data:</b>	8000
<b>Subfield 3 - Error Validation</b>	
Validation identifies the process area in which the transaction failed or was declined.	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	an...255
Data Justification	N/A
Data Field	Contents of position 3
<b>Values</b>	
Used by MyGate's plugin architecture terms.	
<b>Example Data:</b>	Service.Validate
<b>Subfield 4 - Error Message</b>	
The error message is a brief message relating to the Response Code.	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	ans...255
Data Justification	N/A
Data Field	Contents of position 4
<b>Values</b>	
Refer to MyGate's listing of Bank Response Codes and MyGate Response Codes	
<b>Subfield 5 - Error Description</b>	
The message description is a detailed description of the error message.	
<b>Attributes</b>	<b>Data</b>
Length of Field	255
Data Length	ans...255
Data Justification	N/A
Data Field	Contents of position 5
<b>Values</b>	
Refer MyGate's listing of Bank Response Codes and MyGate Response Codes	

## MESSAGE TYPE EXAMPLES

### Searching On Multiple Applications

The Transaction Persistence Reporting Engine provides the capability of retrieving transactional data on more than one application at a time.

This can be done by modifying the security settings in the MyGate Back Office and allocating multiple applications to the Reporting application.

By doing this, when a merchant invokes the Persistence Report Webservice, the transactions for the Application ID which is sent through as well as all transactions linked to the applications that have been associated to the submitted ApplicationID will be returned.

The information returned will then be separated by an Application ID XML tag and the transactions that occurred on each application will be contained within.

### Multiple Application Association Example

```
<Report>
  <ApplicationID>
    <Transaction>
    </Transaction>
    <Transaction>
    </Transaction>
  </ApplicationID>
  <ApplicationID>
    <Transaction>
    </Transaction>
    <Transaction>
    </Transaction>
    <Transaction>
    </Transaction>
  </ApplicationID>
</Report>
```

## Individual Transaction Request Example

```
<?php
$client = new SoapClient("https://www.yourserver.com/persistencereport.cfc?wsdl");
$MERCHANT_ID = "D59EDA6A-9720-47EB-838C-591AF17025F8";
$APPLICATION_ID = "2222D0AD-5177-47AA-85AE-BF2F861B651A";
$TRANSACTION_INDEX = "7E4FEF88-DACO-4CAE-B57A-129F3F369B07";
$DATEFROM = "";
$DATETO = "";
$arrResults = $client->fProcess(
    $MERCHANT_ID,
    $APPLICATION_ID,
    $TRANSACTION_INDEX,
    $DATEFROM,
    $DATETO
);
foreach ($arrResults as $result)
{
    echo($result);
    echo("<br />");
}
?>
```

## Individual Transaction Response Example

Response Data	
Result0	<pre>&lt;?xml version=1.0 encoding=UTF-8?&gt; &lt;report&gt; &lt;2222D0AD-5177-47AA-85AE-BF2F861B651A&gt; &lt;transaction&gt;&lt;cardholder&gt;M Raa&lt;/cardholder&gt; &lt;merchantreference&gt;Order1&lt;/merchantreference&gt; &lt;transactionreference&gt;7E4FEF88-DACO-4CAE-B57A-129F3F369B07&lt;/transactionreference&gt; &lt;datetime&gt;2010-05-25 08:29:07.45&lt;/datetime&gt; &lt;cardnumber&gt;478769*****4013&lt;/cardnumber&gt; &lt;transactionamount&gt;0.0100&lt;/transactionamount&gt; &lt;refundedamount&gt;0.0000&lt;/refundedamount&gt; &lt;livettransaction&gt;true&lt;/livettransaction&gt; &lt;transactionstatus&gt;Authorised&lt;/transactionstatus&gt; &lt;applicationname&gt;FNB&lt;/applicationname&gt; &lt;bankresponsecode&gt;00&lt;/bankresponsecode&gt; &lt;bankresponsestatus&gt;Approved Or Completed Successfully&lt;/bankresponsestatus&gt; &lt;cardtype&gt;Visa&lt;/cardtype&gt; &lt;ipaddress&gt;&gt;null&lt;/ipaddress&gt; &lt;ipcountry&gt;&gt;null&lt;/ipcountry&gt; &lt;bincountry&gt;South Africa&lt;/bincountry&gt; &lt;threedsecurecode&gt;07&lt;/threedsecurecode&gt; &lt;threedsecurestatus&gt;Non 3D Secure&lt;/threedsecurestatus&gt; &lt;fieldName1&gt;FieldValue1&lt;/fieldName1&gt; &lt;fieldName2&gt;FieldValue2&lt;/fieldName2&gt; &lt;fieldName3&gt;FieldValue3&lt;/fieldName3&gt; &lt;fieldName4&gt;FieldValue4&lt;/fieldName4&gt; &lt;/transaction&gt; &lt;/2222D0AD-5177-47AA-85AE-BF2F861B651A&gt; &lt;/report&gt;</pre>
TransactionData	
AcquirerDateTime	2010/05/28 10:03:57 AM
TransactionIndex	32495A78-5A7A-42FB-96A5-FE997B1BE8D3

## Multiple Transaction Request Example

```
$client = new SoapClient("https://www.yourserver.com/persistencereport.cfc?wsdl");
$MERCHANT_ID = "D59EDA6A-9720-47EB-838C-591AF17025F8";
$APPLICATION_ID = "2222D0AD-5177-47AA-85AE-BF2F861B651A";
$TRANSACTION_INDEX = "";
$DATEFROM = "2010/05/25 00:00";
$DATETO = "2010/05/25 23:00";
$arrResults = $client->fProcess(
```

```

$MERCHANT_ID,
$APPLICATION_ID,
$TRANSACTION_INDEX,
$DATEFROM,
$DATETO
);
foreach ($arrResults as $result)
{
    echo($result);
    echo("<br />");
}
?>

```

## Multiple Transaction Response Example

Response Data	
Result0	<pre> &lt;report&gt; &lt;2222D0AD-5177-47AA-85AE-BF2F861B651A&gt; &lt;transaction&gt; &lt;cardholder&gt;M Raa&lt;/cardholder&gt; &lt;merchantreference&gt;Order1&lt;/merchantreference&gt; &lt;transactionreference&gt;7E4FEF88-DACO-4CAE-B57A-129F3F369B07&lt;/transactionreference&gt; &lt;datetime&gt;2010-05-25 08:29:07.45&lt;/datetime&gt; &lt;cardnumber&gt;478769*****4013&lt;/cardnumber&gt; &lt;transactionamount&gt;0.0100&lt;/transactionamount&gt; &lt;refundedamount&gt;0.0000&lt;/refundedamount&gt; &lt;livetranasaction&gt;true&lt;/livetranasaction&gt; &lt;transactionstatus&gt;Authorised&lt;/transactionstatus&gt; &lt;applicationname&gt;FNB&lt;/applicationname&gt; &lt;bankresponsecode&gt;00&lt;/bankresponsecode&gt; &lt;bankresponsestatus&gt;Approved Or Completed Successfully&lt;/bankresponsestatus&gt; &lt;cardtype&gt;Visa&lt;/cardtype&gt; &lt;ipaddress&gt;&gt;null&lt;/ipaddress&gt; &lt;ipcountry&gt;&gt;null&lt;/ipcountry&gt; &lt;bincountry&gt;South Africa&lt;/bincountry&gt; &lt;threedsecurecode&gt;07&lt;/threedsecurecode&gt; &lt;threedsecurestatus&gt;Non 3D Secure&lt;/threedsecurestatus&gt; &lt;fieldName1&gt;FieldValue1&lt;/fieldName1&gt; &lt;/transaction&gt; TransactionData &lt;transaction&gt; &lt;cardholder&gt;M Raa&lt;/cardholder&gt; &lt;merchantreference&gt;Order1&lt;/merchantreference&gt; &lt;transactionreference&gt;16DC2787-FB56-4332-9EAF-5CB40485AF3F&lt;/transactionreference&gt; &lt;datetime&gt;2010-05-25 08:29:11.873&lt;/datetime&gt; &lt;cardnumber&gt;478769*****4013&lt;/cardnumber&gt; &lt;transactionamount&gt;0.0100&lt;/transactionamount&gt; &lt;refundedamount&gt;0.0000&lt;/refundedamount&gt; &lt;livetranasaction&gt;true&lt;/livetranasaction&gt; &lt;transactionstatus&gt;Authorised&lt;/transactionstatus&gt; &lt;applicationname&gt;FNB&lt;/applicationname&gt; &lt;bankresponsecode&gt;00&lt;/bankresponsecode&gt; &lt;bankresponsestatus&gt;Approved Or Completed Successfully&lt;/bankresponsestatus&gt; &lt;cardtype&gt;Visa&lt;/cardtype&gt; &lt;ipaddress&gt;&gt;null&lt;/ipaddress&gt; &lt;ipcountry&gt;&gt;null&lt;/ipcountry&gt; &lt;bincountry&gt;South Africa&lt;/bincountry&gt; &lt;threedsecurecode&gt;07&lt;/threedsecurecode&gt; &lt;threedsecurestatus&gt;Non 3D Secure&lt;/threedsecurestatus&gt; &lt;fieldName1&gt;FieldValue1&lt;/fieldName1&gt; &lt;/transaction &gt; &lt;/2222D0AD-5177-47AA-85AE-BF2F861B651A&gt; &lt;/report&gt; </pre>
AcquirerDateTime	2010/05/28 10:18:12 AM
TransactionIndex	2B023219-9E6F-4916-8641-E6B65628CB20

## Failed Transaction Request Example

```
$client = new SoapClient("https://www.yourserver.com/persistencereport.cfc?wsdl");
$MERCHANT_ID = "D59EDA6A-9720-47EB-838C-591AF17025F8";
$APPLICATION_ID = "2222D0AD-5177-47AA-85AE-BF2F861B651A";
$TRANSACTION_INDEX = "";
$DATEFROM = "";
$DATETO = "";
$arrResults = $client->fProcess(
    $MERCHANT_ID,
    $APPLICATION_ID,
    $TRANSACTION_INDEX,
    $DATEFROM,
    $DATETO
);
foreach ($arrResults as $result)
{
    echo($result);
    echo("<br />");
}
?>
```

## Failed Transaction Response Example

Response Data	
Result	-1
ErrorCode	Error   1081  Reporting Validation_0.0.1  Incomplete Search Criteria  Neither a TransactionIndex nor a date range was specified. If this problem persists, please contact Support at support@mygateglobal.com
AcquirerDateTime	2010/05/28 10:28:55 AM
TransactionIndex	5F290B97-15F3-4950-9E20-BF8D400B2D3B