PayPal™

# PayPal Permissions Service

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*PayPal Permissions Service*

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# What's New?

Permissions Service is intended for developers implementing solutions that require executing a PayPal API operation on behalf of an account holder. Check out what's new in the current release.

## Release 89 Changes

Maintenance release.

# Preface

With the Permissions Service, you can ask your customers for permission to make API calls on their behalf programmatically.

## Documentation Feedback

Help us improve this guide by sending feedback to:

documentationfeedback@paypal.com

# 1 About the PayPal Permissions Service

With permission, you can execute PayPal API operations for a PayPal account holder. The PayPal Permissions Service provides a way for account holders to grant permission to execute API operations on their behalf programmatically.

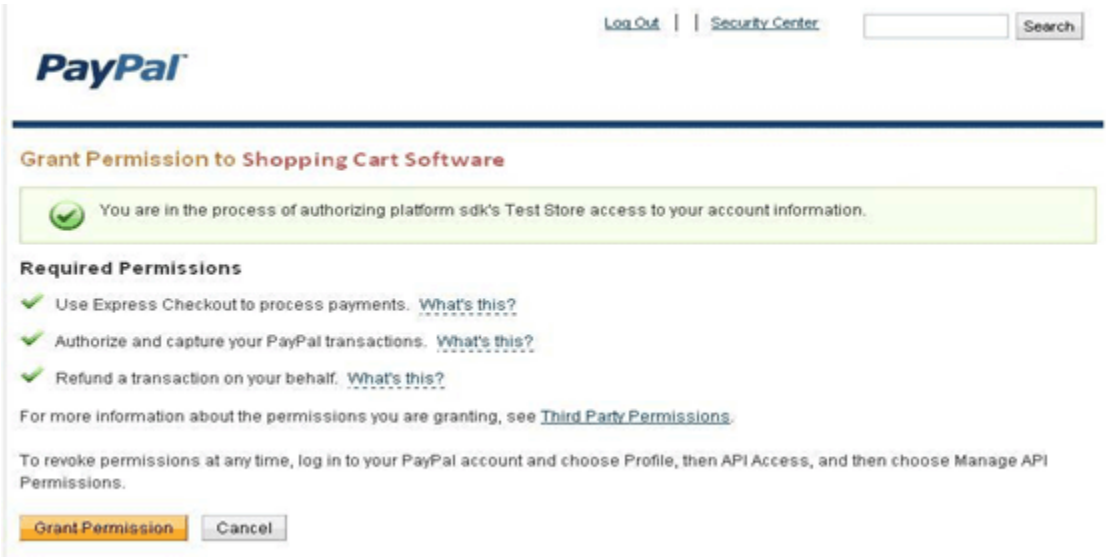
## Permissions Service Overview

Granting of permissions is handled by the Permissions Service API. If you call these API operations, the account holder need not set third-party permissions in the Profile and then explicitly notify you that permission has been granted. Your website or application can incorporate this task seamlessly by calling Permissions Service API operations.

The Permissions Service API enables you to request and obtain permission from PayPal account holders, such as the merchants or customers. Consider the following examples in which the Permissions Service API can be used:

- You provide a shopping cart for merchants and need to make calls to the Express Checkout API to complete payments into the merchant's account. As a shopping cart provider, you are a third party to the transaction between PayPal and the merchant and, thus, require permission from the merchant to take actions that affect the merchant's PayPal account. The Permissions Service API enables your cart to request permission to execute Express Checkout APIs on your behalf.
- You sell an application that provides reports and analyses of your customers' PayPal transactions. Accessing this information requires customers to grant you permission to call the PayPal `TransactionSearch` and `GetTransactionDetails` API operations to access their transactions. You can use the Permissions Service API to request permission of each customer to execute `TransactionSearch` and `GetTransactionDetails`.

After requesting permission, you redirect the account holder to PayPal to grant the permission:




Once permission has been granted, you can execute the PayPal API operations associated with the permissions on the account holder's behalf. To determine what permissions you need:

1. Determine the specific PayPal API operations that you will call as part of your application or service.
2. Identify the groups that contain these API operations.
3. Request permission to execute the API operations by group.

## Permission Groups

Permission groups are the bundles of PayPal APIs that you can request permission to call on behalf of a PayPal account holder. In your request, you specify one or more group IDs that cover the API operations you need to call.

| Display description | Group ID includes |
|---|---|
| Use Express Checkout to process payments. | `EXPRESS_CHECKOUT` includes<br>• `SetExpressCheckout`<br>• `GetExpressCheckout`<br>• `DoExpressCheckout`<br>• `GetPalDetails` |
| Process your customers' credit or debit card payments. | `DIRECT_PAYMENT` includes `DoDirectPayment` |

| Display description | Group ID includes |
|---|---|
| Consolidate funds from two or more child accounts into a master account. | `SETTLEMENT_CONSOLIDATION` includes Settlement Consolidation; valid for all countries except Indonesia, Turkey, Estonia, and the Russian Federation<br>**NOTE:** You must have prior approval from PayPal to request this permission. |
| Provide reporting for consolidated funds. | `SETTLEMENT_REPORTING` includes Settlement Reporting; valid for all countries except Indonesia, Turkey, Estonia, and the Russian Federation<br>**NOTE:** You must have prior approval from PayPal to request this permission. |
| Authorize and capture your PayPal transactions. | `AUTH_CAPTURE` includes<br>• `DoAuthorization`<br>• `DoCapture`<br>• `DoReauthorization`<br>• `DoVoid` |
| Use Express Checkout to process mobile payments. | `MOBILE_CHECKOUT` includes<br>• `SetMobileCheckout`<br>• `DoMobileCheckoutPayment`<br>• `CreateMobilePayment` |
| Obtain authorization for pre-approved payments and initiate pre-approved transactions. | `BILLING_AGREEMENT` includes<br>• `SetCustomerBillingAgreement`<br>• `CreateBillingAgreement`<br>• `BillAgreementUpdate`<br>• `GetBillingAgreementCustomerDetail`<br>**NOTE:** You must have prior approval from PayPal to request this permission. |
| Process a payment based on a previous transaction. | `REFERENCE_TRANSACTION` includes `DoReferenceTransaction`<br>**NOTE:** You must have prior approval from PayPal to request this permission. |
| Authorize transactions with Universal Air Travel Plans. | `AIR_TRAVEL` includes<br>• `DoUATPAuthorization`<br>• `DoUATPExpressCheckoutPayment` |
| Initiate transactions to multiple recipients in a single batch. | `MASS_PAY` includes `MassPay`<br>**NOTE:** You must have prior approval from PayPal to request this permission. |

| Display description | Group ID includes |
|---|---|
| Obtain transaction specific information. | `TRANSACTION_DETAILS` includes `GetTransactionDetails`<br>**NOTE:** You must have prior approval from PayPal to request this permission. |
| Search your transactions for items that match specific criteria and display the results. | `TRANSACTION_SEARCH` includes `TransactionSearch` |
| Create and manage recurring payments. | `RECURRING_PAYMENTS` includes<br>• `CreateRecurringPaymentsProfile`<br>• `GetRecurringPaymentsProfileDetails`<br>• `ManageRecurringPaymentsProfileStatus`<br>• `UpdateRecurringPaymentsProfile`<br>• `BillOutstandingAmount` |
| Obtain your PayPal account balance. | `ACCOUNT_BALANCE` includes `GetBalance`<br>**NOTE:** You must have prior approval from PayPal to request this permission. |
| Dynamically encrypt PayPal payment buttons on your web site. | `ENCRYPTED_WEBSITE_PAYMENTS` includes Encrypted Website Payments<br>**NOTE:** You must have prior approval from PayPal to request this permission. |
| Refund a transaction on your behalf. | `REFUND` includes<br>• `RefundTransaction`<br>• `Refund` |
| Issue a credit to a debit or credit card. | `NON_REFERENCED_CREDIT` includes `DoNonReferencedCredit`<br>**NOTE:** You must have prior approval from PayPal to request this permission. |
| Create and manage PayPal payment buttons on your behalf. | `BUTTON_MANAGER` includes<br>• `BMManageButtonStatus`<br>• `BMCreateButton`<br>• `BMUpdateButton`<br>• `BMSetInventory`<br>• `BMGetInventory`<br>• `BMButtonSearch` |
| Obtain basic attributes for specified user, such as first name, last name, and payer ID. | `ACCESS_BASIC_PERSONAL_DATA` required for `GetBasicPersonalData`<br>**NOTE:** You must have prior approval from PayPal to request this permission. |

| Display description | Group ID includes |
|---|---|
| Obtain advanced attributes for specified user, such as date of birth and phone. | `ACCESS_ADVANCED_PERSONAL_DATA` required for `GetAdvancedPersonalData`<br>**NOTE:** You must have prior approval from PayPal to request this permission. |
| Accept or deny a pending transaction. | `MANAGE_PENDING_TRANSACTION_STATUS` includes `ManagePendingTransactionStatus` |
| Reporting for recurring payments | `RECURRING_PAYMENT_REPORT`; valid for all countries except Indonesia, Turkey, Estonia, and the Russian Federation |
| Extended Pro processing | `EXTENDED_PRO_PROCESSING_REPORT`; valid for all countries except Indonesia, Turkey, Estonia, and the Russian Federation |
| Exception processing | `EXCEPTION_PROCESSING_REPORT`; valid for all countries except Indonesia, Turkey, Estonia, and the Russian Federation |
| Account Management Permission (MAM) | `ACCOUNT_MANAGEMENT_PERMISSION`; valid for all countries except Indonesia, Turkey, Estonia, and the Russian Federation |
| Manager your invoicing through a third party. | `INVOICING` includes:<br>• `UpdateInvoice`<br>• `CancelInvoice`<br>• `GetInvoiceDetails`<br>• `MarkInvoiceAsPaid`<br>• `SearchInvoices`<br>• `CreateInvoice`<br>• `SendInvoice`<br>• `CreateAndSendInvoice` |

## Permissions API Operations

The PayPal Permissions API includes operations to request, access, and cancel permissions. It also enables you to obtain the access token needed to determine permissions that an account holder has granted you.

| API Operation | Description |
|---|---|
| `CancelPermissions` | Use the `CancelPermissions` API operation to cancel access to a set of permissions. |
| `GetAccessToken` | Use the `GetAccessToken` API operation to obtain an access token for a set of permissions. |

| API Operation | Description |
|---|---|
| `GetPermissions` | Use the `GetPermissons` API operation to obtain the permissions associated with an access token. |
| `RequestPermissions` | Use the `RequestPermissions` API operation to request permissions to execute API operations on a PayPal account holder's behalf. |

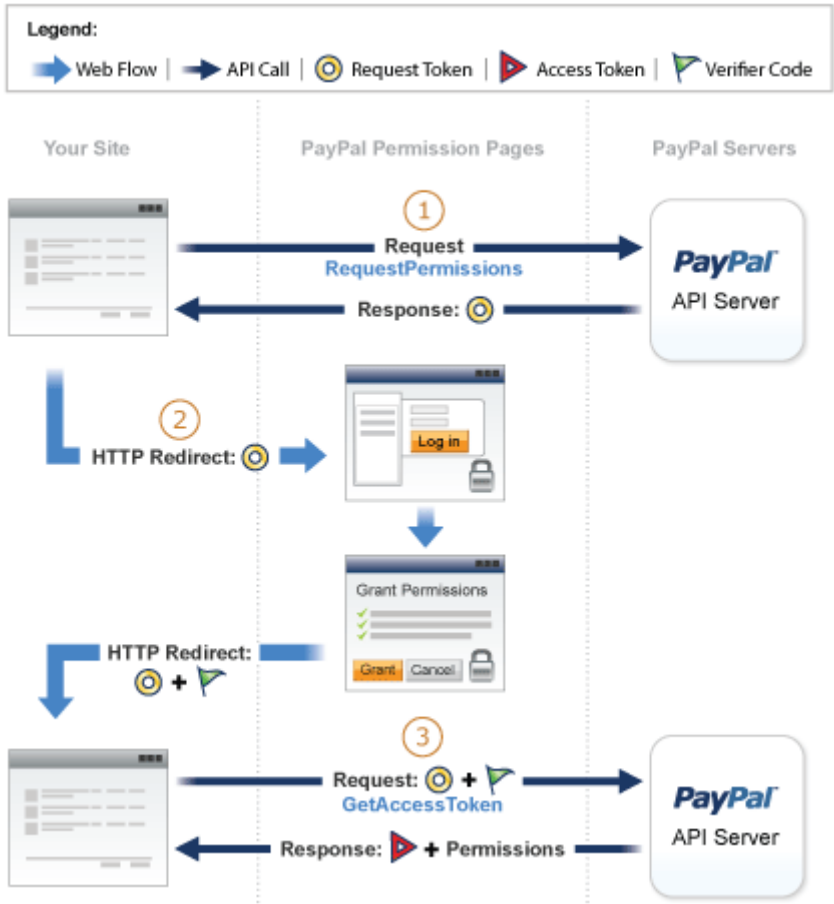
# 2 Using the Permissions Service

Use the Permissions Service API to obtain permission to execute PayPal API operations on behalf of PayPal account holders. You can use PayPal SDKs to generate authentication headers for PayPal Adaptive Payment and Adaptive Accounts APIs.

## Obtaining Permissions

To obtain permissions from an account holder, you call `RequestPermissions` to make the request, redirect to PayPal to enable the account holder to approve the request, and call `GetAccessToken` to obtain the permissions and an access token. The access token enables you to create a signature for calling API operations as a third party, determine the permissions you can access, and cancel access to the permissions.

The following diagram shows the basic execution flow for obtaining permission as a third party to PayPal and an account holder:




To obtain permissions from an account holder, follow these steps:

1. Set up your request and call the `RequestPermissions` API operation.
   - Specify the return URL in the `callback` field.
   - Specify one or more group IDs, such as `EXPRESS_CHECKOUT`, in the `scope` field; one string per group ID.
   - Send the request to the `https://svcs.paypal.com/Permissions/RequestPermission` endpoint.

   **NOTE:** Use `https://svcs.sandbox.paypal.com/Permissions/...` for the Sandbox.

```
curl -s --insecure
-H "X-PAYPAL-SECURITY-USERID: api_username"
-H "X-PAYPAL-SECURITY-PASSWORD: api_password"
-H "X-PAYPAL-SECURITY-SIGNATURE: api_signature"
-H "X-PAYPAL-REQUEST-DATA-FORMAT: NV"
-H "X-PAYPAL-RESPONSE-DATA-FORMAT: NV"
-H "X-PAYPAL-APPLICATION-ID: app_id"
https://svcs.sandbox.paypal.com/Permissions/RequestPermissions -d
"requestEnvelope.errorLanguage=en_US
&scope=EXPRESS_CHECKOUT
&callback=http://your_return_url"
```

PayPal responds with a request token that you use in following steps to obtain an access token.

**NOTE:** The request token from this step is different than the access token, which you use to access permissions that already have been granted.

2. Redirect the account holder's browser to PayPal and include the request token in the `request_token` parameter.

```
https://www.paypal.com/cgi-bin/webscr?
cmd=_grant-permission&request_token=token
```

PayPal initiates granting permissions. When the account holder grants permissions, PayPal returns a verification code, which you use in the next step.

**NOTE:** The verification code expires in about 15 minutes.

3. Set up your request and call the `GetAccessToken` API operation.
   - Specify the request token in the `token` field.
   - Specify the verification code in the `verifier` field.
   - Send the request to `https://svcs.paypal.com/Permissions/GetAccessToken`.

```
curl -s --insecure
-H "X-PAYPAL-SECURITY-USERID: api_username"
-H "X-PAYPAL-SECURITY-PASSWORD: api_password"
-H "X-PAYPAL-SECURITY-SIGNATURE: api_signature"
-H "X-PAYPAL-REQUEST-DATA-FORMAT: NV"
-H "X-PAYPAL-RESPONSE-DATA-FORMAT: NV"
-H "X-PAYPAL-APPLICATION-ID: app_id"
https://svcs.sandbox.paypal.com/Permissions/GetAccessToken -d
"requestEnvelope.errorLanguage=en_US
&token=token
&verifier=code"
```

PayPal responds with the scope, which is a list of the permissions granted by the account holder, and an access token and associated secret.

**After Completing This Task:**

You use the access token and associated secret to create an authentication header, `X-PAYPAL-AUTHORIZATION`. When you call PayPal API operations, the authentication header specifies whether you have permission to make the call on behalf of the account holder.

## Generating Signatures for the Authentication Header

After you have an access token and associated secret, you can create an authentication header, `X-PAYPAL-AUTHORIZATION`, and use it in calls to PayPal APIs. You use either the API signature or certificate from the account holder's profile when you create the header.

The `X-PAYPAL-AUTHORIZATION` header contains

- A timestamp
- The access token from the `GetAccessToken` response
- A signature generated from the following information:
  - Your API username
  - Your API password
  - The access token from the `GetAccessToken` response
  - The token secret from the `GetAccessToken` response
  - The endpoint for the PayPal API operation's request, such as `https://api.paypal.com/nvp`
  - The HTTPS delivery method, such as `POST`
  - Request parameters associated with the request

**NOTE:** You can use a certificate instead of the API username and API signature.

PayPal provides SDKs that you can use to generate authentication header signatures for Java, PHP, and .NET. When you use the SDK, you will get two values, such as the following:

```
Signature=tLWUfZU9Np/7qgPqWF1LMIWjY1s=
Timestamp=1285744515
```

Use the values to construct the header as follows:

```
X-PAYPAL-AUTHORIZATION=timestamp=1285744515,
token=5wZptMaHXQfihLKZFscuGjeKOPqQrlfHFPqRc1QlItX3vYi6,
signature=tLWUfZU9Np/7qgPqWF1LMIWjY1s=
```

### Java Example

The PayPal Java SDK provides a method for creating the `X-PAYPAL-AUTHORIZATION` header. See the `getAuthHeader` method in the `OauthSignature.java` file of the `com.paypal.sdk.util` package in `paypal_base.jar`.

```
import java.util.Iterator;
import java.util.Map;
import com.paypal.sdk.util.OAuthSignature;
import com.paypal.sdk.util.OAuthSignature.HTTPMethod;
public class TestOauthSignature {
 private static String apiUserName = "..._biz_api1.gmail.com";
 private static String apiPassword = "1255077037";
 private static String accessToken = "2WhQDDM4...";
 private static String tokenSecret = "j0YhbTgcy.K5VjpQa7Ru8oM...";
 private static HTTPMethod httpMethod = OAuthSignature.HTTPMethod.POST;
 private static String scriptURI = "https://api.sandbox.paypal.com/nvp";
 private static Map queryParams = null;
 public static void main(String[] args) {
  try{
     Map map = OAuthSignature.getAuthHeader(apiUserName, apiPassword,
          accessToken, tokenSecret, httpMethod, scriptURI, queryParams);
     // Display Signature and Timestamp to console.
     Iterator itr = map.entrySet().iterator();
     while(itr.hasNext()){
      Map.Entry entry = (Map.Entry)itr.next();
      System.out.println(entry.getKey() + ": " + entry.getValue());
     }
  }catch (Exception e) {
   // handle exception
  }
 }
}
```

## Granting Permission to Access Account Holder Information

After you have created an authentication header as described above, you can call `GetBasicPersonalData` and `GetAdvancedPersonalData` to obtain basic and advanced information about the account holder.

Basic information includes the following:

- First Name
- Last Name
- Email
- Full Name
- Business Name
- Country
- PayerID

Advanced information includes the following:

- Date of birth
- Postcode
- Street1
- Street2
- City
- State
- Phone

These two API calls work like all other APIs in PayPal – if you have permission, the call will succeed; if not, the call will fail. For both APIs, if the account holder has not given consent to access the requested data, the service will return an error indicating that you do not have permission to perform the action on behalf of another user.

The form of the call is as follows:

```
curl -s --insecure ^
 -H "X-PAYPAL-AUTHORIZATION: token=...,signature=..., timeStamp=..." ^
 -H "X-PAYPAL-REQUEST-DATA-FORMAT:NV" ^
 -H "X-PAYPAL-RESPONSE-DATA-FORMAT:NV" ^
 -H "X-PAYPAL-APPLICATION-ID:APP-1JE4291016473214C" ^
 -d "attributeList.attribute(0)=http://axschema.org/contact/email^
 &attributeList.attribute(1)=http://schema.openid.net/contact/fullname^
 &requestEnvelope.errorLanguage=en_US"
https://svcs.paypal.com/Permissions/GetBasicPersonalData
```

```
responseEnvelope.timestamp=2011-10-24T01%3A37%3A26.565-
07%3A00&responseEnvelope.ack=Success&responseEnvelope.correlationId=5d8bf19
13be02&responseEnvelope.build=2210301&response.personalData(0).personalData
Key=http%3A%2F%2Faxschema.org%2Fcontact%2Femail&response.personalData(0).pe
rsonalDataValue=jdoe%40someisp.com&response.personalData(1).personalDataKey
=http%3A%2F%2Fschema.openid.net%2Fcontact%2Ffullname&response.personalData(
1).personalDataValue=John+Doe
```

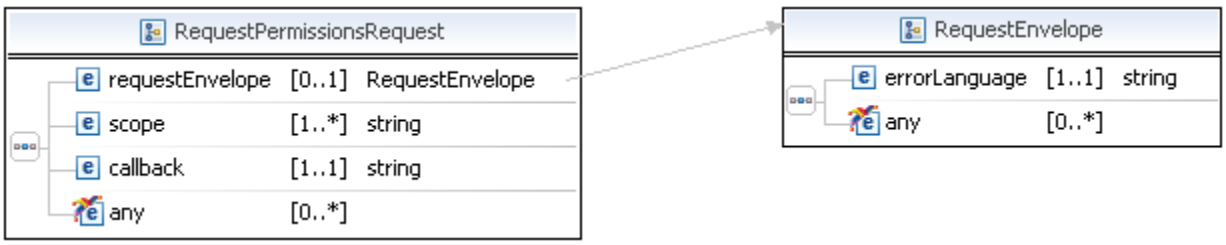
**Notes:**

1. The `X-PAYPAL-AUTHORIZATION` header was generated with URL "`https://svcs.paypal.com/Permissions/GetBasicPersonalData`".
2. `ACCESS_BASIC_PERSONAL_DATA` and `ACCESS_ADVANCED_PERSONAL_DATA` access permissions have been previously granted to the API caller.
3. This example illustrates use of the `GetBasicPersonalData` API. A request to `GetAdvancedPersonalData` would be the same except for the URI, and the response fields would differ.
4. The URL used in `curl` and the URL used to generate `X-PAYPAL-AUTHORIZATION` must be identical.

# 3 RequestPermissions API Operation

Use the `RequestPermissions` API operation to request permissions to execute API operations on a PayPal account holder's behalf.

## RequestPermissionsRequest Message



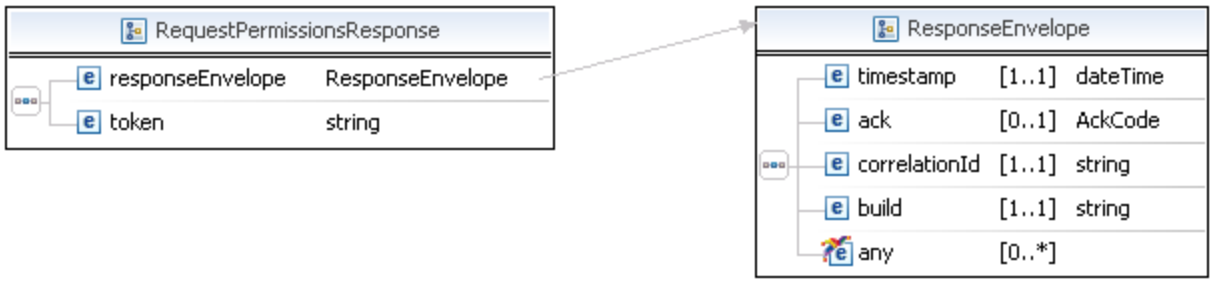
## RequestPermissions Request Fields

| Field | Description |
|---|---|
| `scope` | `xs:string`<br>*(Required)* At least 1 of the following permission categories:<br>• `EXPRESS_CHECKOUT` - Express Checkout<br>• `DIRECT_PAYMENT` - Direct payment by debit or credit card<br>• `SETTLEMENT_CONSOLIDATION` - Settlement consolidation<br>• `SETTLEMENT_REPORTING` - Settlement reporting<br>• `AUTH_CAPTURE` - Payment authorization and capture<br>• `MOBILE_CHECKOUT` - Mobile checkout<br>• `BILLING_AGREEMENT` - Billing agreements<br>• `REFERENCE_TRANSACTION` - Reference transactions<br>• `AIR_TRAVEL` - Express Checkout for UTAP<br>• `MASS_PAY` - Mass pay<br>• `TRANSACTION_DETAILS` - Transaction details<br>• `TRANSACTION_SEARCH` - Transaction search<br>• `RECURRING_PAYMENTS` - Recurring payments<br>• `ACCOUNT_BALANCE` - Account balance<br>• `ENCRYPTED_WEBSITE_PAYMENTS` - Encrypted website payments<br>• `REFUND` - Refunds<br>• `NON_REFERENCED_CREDIT` - Non-referenced credit<br>• `BUTTON_MANAGER` - Button Manager<br>• `MANAGE_PENDING_TRANSACTION_STATUS` includes `ManagePendingTransactionStatus`<br>• `RECURRING_PAYMENT_REPORT` - Reporting for recurring payments<br>• `EXTENDED_PRO_PROCESSING_REPORT` - Extended Pro processing<br>• `EXCEPTION_PROCESSING_REPORT` - Exception processing<br>• `ACCOUNT_MANAGEMENT_PERMISSION` - Account Management Permission (MAM)<br>• `ACCESS_BASIC_PERSONAL_DATA` - User attributes<br>• `ACCESS_ADVANCED_PERSONAL_DATA` - User attributes<br>• `INVOICING` - Invoicing |
| `callback` | `xs:string`<br>*(Required)* Your callback function that specifies actions to take after the account holder grants or denies the request. |
| `requestEnvelope` | `common:requestEnvelope`<br>*(Required)* Information common to each API operation, such as the language in which an error message is returned. |

### RequestEnvelope Fields

| Field | Description |
|---|---|
| `detailLevel` | `common:DetailLevelCode`<br>*(Optional)* Level of detail required by the client application for components. It is one of the following values:<br>• `ReturnAll` – This value provides the maximum level of detail (default). |
| `errorLanguage` | `xs:string`<br>*(Required)* RFC 3066 language in which error messages are returned; by default it is `en_US`, which is the only language currently supported. |

## RequestPermissionsResponse Message




### RequestPermissions Response Fields

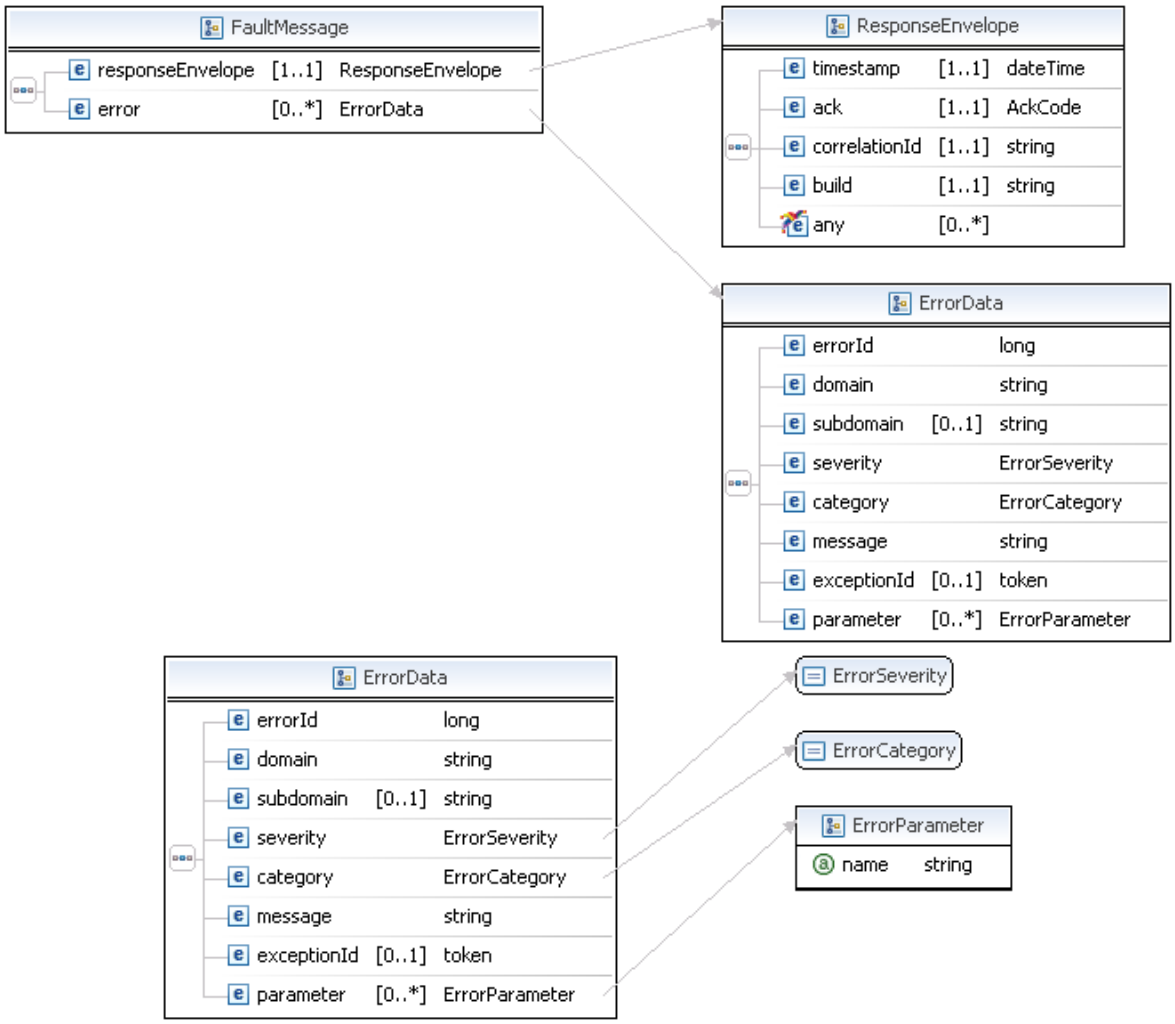
| Field | Description |
|---|---|
| `token` | `xs:string`<br>*(Required)* A token from PayPal that enables the request to obtain permissions. |
| `responseEnvelope` | `common:ResponseEnvelope`<br>Common response information, including a timestamp and the response acknowledgement status. |

## ResponseEnvelope Fields

| Field | Description |
|---|---|
| ack | common:AckCode<br>Acknowledgement code. It is one of the following values:<br>• Success – The operation completed successfully.<br>• Failure – The operation failed.<br>• Warning – Warning.<br>• SuccessWithWarning – The operation completed successfully; however, there is a warning message.<br>• FailureWithWarning – The operation failed with a warning message. |
| build | Build number; it is used only by Developer Technical Support. |
| correlationId | Correlation ID; it is used only by Developer Technical Support.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |
| timestamp | Date on which the response was sent. The time is currently not supported.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

## PPFault Message

The `PPFaultMessage` returns `ErrorData` and the `ResponseEnvelope` information to your application if an error occurs.




### FaultMessage Fields

| Field | Description |
|---|---|
| `error` | `common:ErrorData`<br>Detailed error information. |
| `responseEnvelope` | `common:ResponseEnvelope`<br>Common response information, including a timestamp and the response acknowledgement status. |

## ErrorData Fields

| Field | Description |
|---|---|
| `category` | `common:ErrorCategory`<br>The location where the error occurred.<br>Possible values are:<br>• `System` – The system encountered errors; try again<br>• `Application` – The application encountered errors; try again<br>• `Request` – The request was incorrect |
| `domain` | The domain to which this service belongs. |
| `errorId` | A number that uniquely identifies a particular error. |
| `exceptionID` | This field is not used. |
| `message` | A description of the error. |
| `parameter` | `common:ErrorParameter`<br>Represents contextual information about the error. |
| `severity` | `common:ErrorSeverity`<br>The severity of the error encountered.<br>Possible values are:<br>• `Error` – Processing of the request was interrupted<br>• `Warning` – Processing of the request was completed |
| `subdomain` | This field is not used. |

## ResponseEnvelope Fields

| Field | Description |
|---|---|
| `ack` | `common:AckCode`<br>Acknowledgement code. It is one of the following values:<br>• `Success` – The operation completed successfully.<br>• `Failure` – The operation failed.<br>• `Warning` – Warning.<br>• `SuccessWithWarning` – The operation completed successfully; however, there is a warning message.<br>• `FailureWithWarning` – The operation failed with a warning message. |
| `build` | Build number; it is used only by Developer Technical Support. |
| `correlationId` | Correlation ID; it is used only by Developer Technical Support.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

| Field | Description |
|---|---|
| `timestamp` | Date on which the response was sent. The time is currently not supported.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

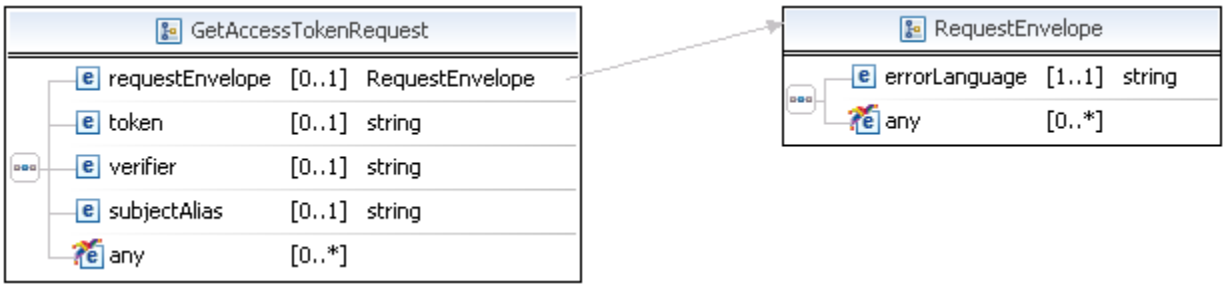
## RequestPermission Errors

| Code | Message | Additional Information |
|---|---|---|
| 520002 | Internal error | |
| 550001 | User is not allowed to perform this action | |
| 560022 | Invalid API Caller Account | |
| 580022 | Transaction refused because of an invalid argument. See additional error messages for details. | |
| 580028 | Invalid Redirect URL | |

# 4 GetAccessToken API Operation

Use the `GetAccessToken` API operation to obtain an access token for a set of permissions.

## GetAccessTokenRequest Message



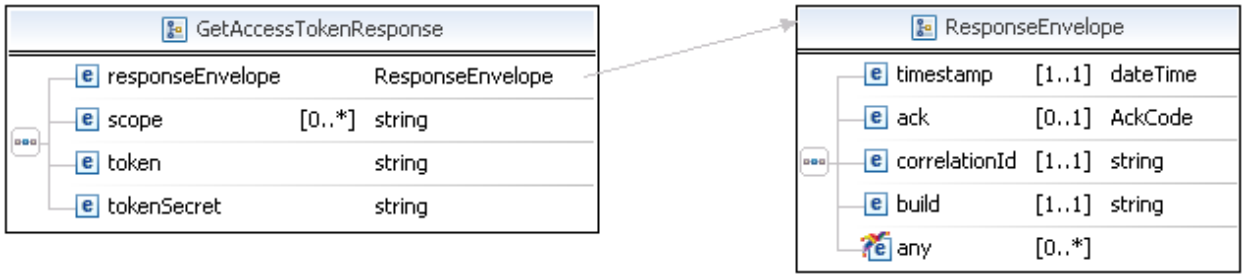

## GetAccessTokenRequest Fields

| Field | Description |
|---|---|
| `token` | `xs:string`<br>*(Required)* The request token from the response to `RequestPermissions`. |
| `verifier` | `xs:string`<br>*(Required)* The verification code returned in the redirect from PayPal to the return URL. |
| `subjectAlias` | `xs:string`<br>Do not use. |
| `requestEnvelope` | `common:requestEnvelope`<br>*(Required)* Information common to each API operation, such as the language in which an error message is returned. |

### RequestEnvelope Fields

| Field | Description |
|---|---|
| `detailLevel` | `common:DetailLevelCode`<br>*(Optional)* Level of detail required by the client application for components. It is one of the following values:<br>• `ReturnAll` – This value provides the maximum level of detail (default). |
| `errorLanguage` | `xs:string`<br>*(Required)* RFC 3066 language in which error messages are returned; by default it is `en_US`, which is the only language currently supported. |

## GetAccessToken Response Message



## GetAccessTokenResponse Fields

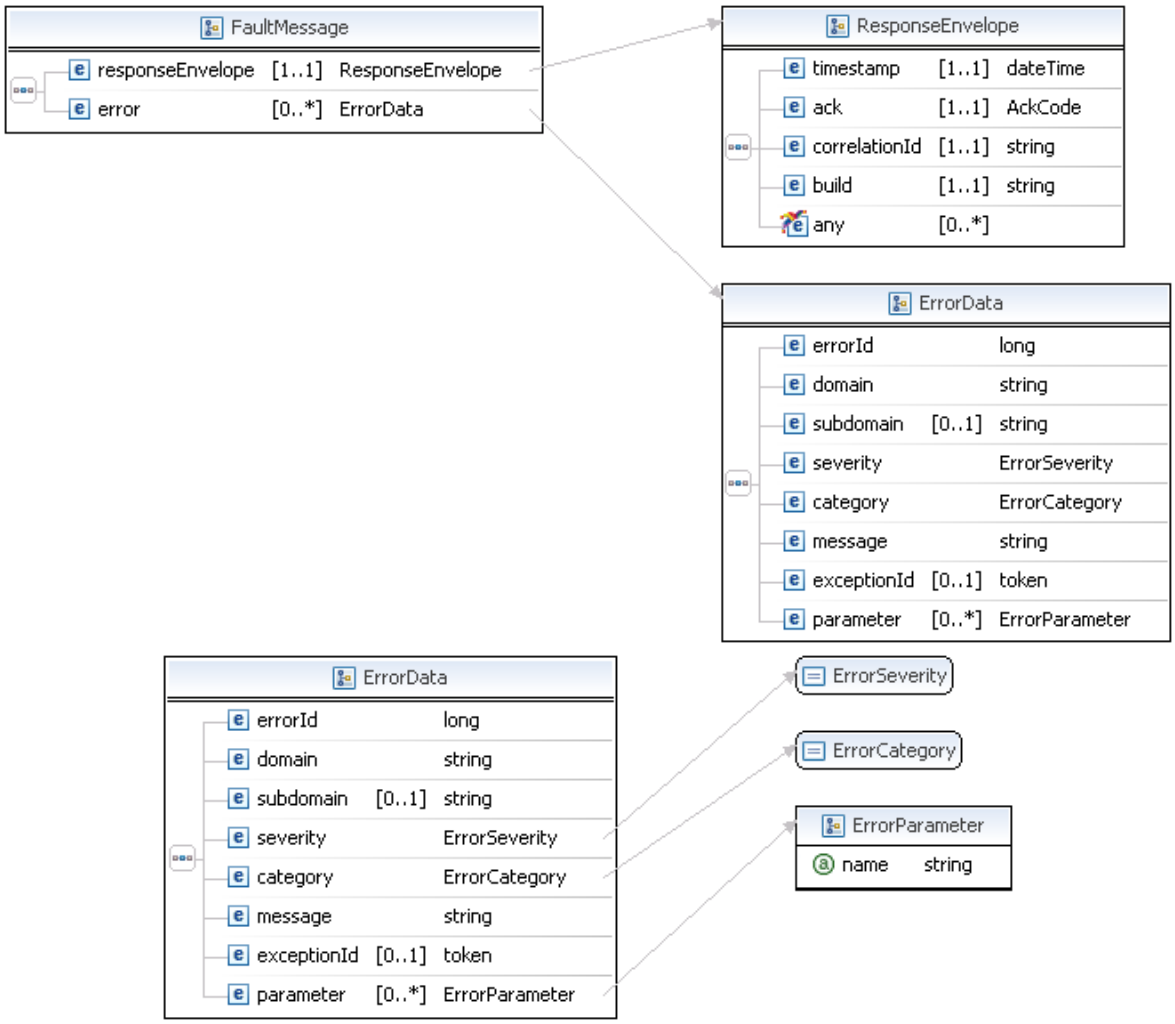
| Field | Description |
|---|---|
| scope | xs:string<br>The group IDs of the permission categories associated with the access token:<br>• EXPRESS_CHECKOUT - Express Checkout<br>• DIRECT_PAYMENT - Direct payment by debit or credit card<br>• SETTLEMENT_CONSOLIDATION - Settlement consolidation<br>• SETTLEMENT_REPORTING - Settlement reporting<br>• AUTH_CAPTURE - Payment authorization and capture<br>• MOBILE_CHECKOUT - Mobile checkout<br>• BILLING_AGREEMENT - Billing agreements<br>• REFERENCE_TRANSACTION - Reference transactions<br>• AIR_TRAVEL - Express Checkout for UTAP<br>• MASS_PAY - Mass pay<br>• TRANSACTION_DETAILS - Transaction details<br>• TRANSACTION_SEARCH - Transaction search<br>• RECURRING_PAYMENTS - Recurring payments<br>• ACCOUNT_BALANCE - Account balance<br>• ENCRYPTED_WEBSITE_PAYMENTS - Encrypted website payments<br>• REFUND - Refunds<br>• NON_REFERENCED_CREDIT - Non-referenced credit<br>• BUTTON_MANAGER - Button Manager<br>• MANAGE_PENDING_TRANSACTION_STATUS includes ManagePendingTransactionStatus<br>• RECURRING_PAYMENT_REPORT - Reporting for recurring payments<br>• EXTENDED_PRO_PROCESSING_REPORT - Extended Pro processing<br>• EXCEPTION_PROCESSING_REPORT - Exception processing<br>• ACCOUNT_MANAGEMENT_PERMISSION - Account Management Permission (MAM)<br>• ACCESS_BASIC_PERSONAL_DATA - User attributes<br>• ACCESS_ADVANCED_PERSONAL_DATA - User attributes<br>• INVOICING - Invoicing |
| token | xs:string<br>The access token that identifies a set of permissions. |
| tokenSecret | xs:string<br>The secret associated with the access token. |
| responseEnvelope | common:ResponseEnvelope<br>Common response information, including a timestamp and the response acknowledgement status. |

## ResponseEnvelope Fields

| Field | Description |
|---|---|
| ack | common:AckCode<br>Acknowledgement code. It is one of the following values:<br>• Success – The operation completed successfully.<br>• Failure – The operation failed.<br>• Warning – Warning.<br>• SuccessWithWarning – The operation completed successfully; however, there is a warning message.<br>• FailureWithWarning – The operation failed with a warning message. |
| build | Build number; it is used only by Developer Technical Support. |
| correlationId | Correlation ID; it is used only by Developer Technical Support.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |
| timestamp | Date on which the response was sent. The time is currently not supported.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

## PPFault Message

The `PPFaultMessage` returns `ErrorData` and the `ResponseEnvelope` information to your application if an error occurs.




### FaultMessage Fields

| Field | Description |
|---|---|
| `error` | `common:ErrorData`<br>Detailed error information. |
| `responseEnvelope` | `common:ResponseEnvelope`<br>Common response information, including a timestamp and the response acknowledgement status. |

## ErrorData Fields

| Field | Description |
|---|---|
| `category` | `common:ErrorCategory`<br>The location where the error occurred.<br>Possible values are:<br>• `System` – The system encountered errors; try again<br>• `Application` – The application encountered errors; try again<br>• `Request` – The request was incorrect |
| `domain` | The domain to which this service belongs. |
| `errorId` | A number that uniquely identifies a particular error. |
| `exceptionID` | This field is not used. |
| `message` | A description of the error. |
| `parameter` | `common:ErrorParameter`<br>Represents contextual information about the error. |
| `severity` | `common:ErrorSeverity`<br>The severity of the error encountered.<br>Possible values are:<br>• `Error` – Processing of the request was interrupted<br>• `Warning` – Processing of the request was completed |
| `subdomain` | This field is not used. |

## ResponseEnvelope Fields

| Field | Description |
|---|---|
| `ack` | `common:AckCode`<br>Acknowledgement code. It is one of the following values:<br>• `Success` – The operation completed successfully.<br>• `Failure` – The operation failed.<br>• `Warning` – Warning.<br>• `SuccessWithWarning` – The operation completed successfully; however, there is a warning message.<br>• `FailureWithWarning` – The operation failed with a warning message. |
| `build` | Build number; it is used only by Developer Technical Support. |
| `correlationId` | Correlation ID; it is used only by Developer Technical Support.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

| Field | Description |
|---|---|
| `timestamp` | Date on which the response was sent. The time is currently not supported.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

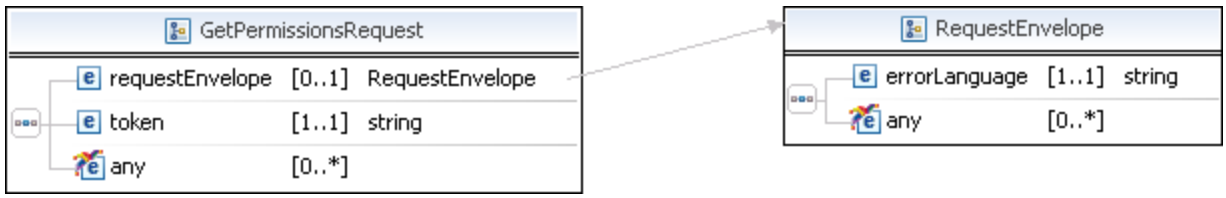
## GetAccessToken Errors

| Code | Message | Additional Information |
|---|---|---|
| 579058 | Request token is Expired | |
| 580022 | Invalid Request token or Verifier Code | |

# 5 GetPermissions API Operation

Use the `GetPermissions` API operation to obtain the permissions associated with an access token.

## GetPermissionsRequest Message



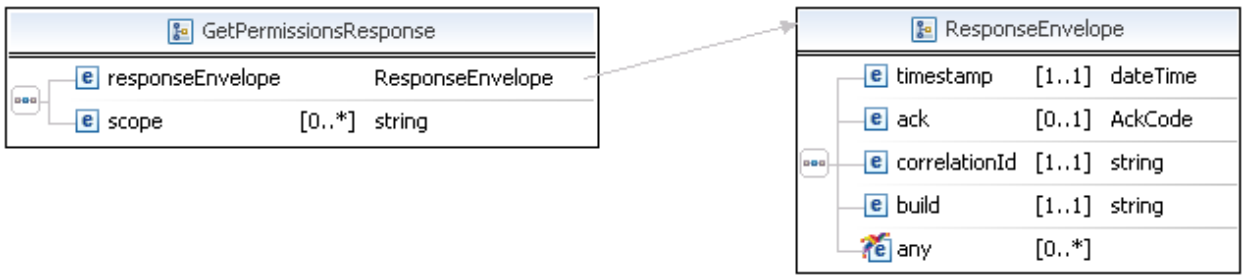

### GetPermissionsRequest Fields

| Field | Description |
|---|---|
| `token` | `xs:string`<br>*(Required)* The access token that identifies a set of permissions. |
| `requestEnvelope` | `common:requestEnvelope`<br>*(Required)* Information common to each API operation, such as the language in which an error message is returned. |

### RequestEnvelope Fields

| Field | Description |
|---|---|
| `detailLevel` | `common:DetailLevelCode`<br>*(Optional)* Level of detail required by the client application for components. It is one of the following values:<br>• `ReturnAll` – This value provides the maximum level of detail (default). |
| `errorLanguage` | `xs:string`<br>*(Required)* RFC 3066 language in which error messages are returned; by default it is `en_US`, which is the only language currently supported. |

## GetPermissionsResponse Message



## GetPermissionsResponse Fields

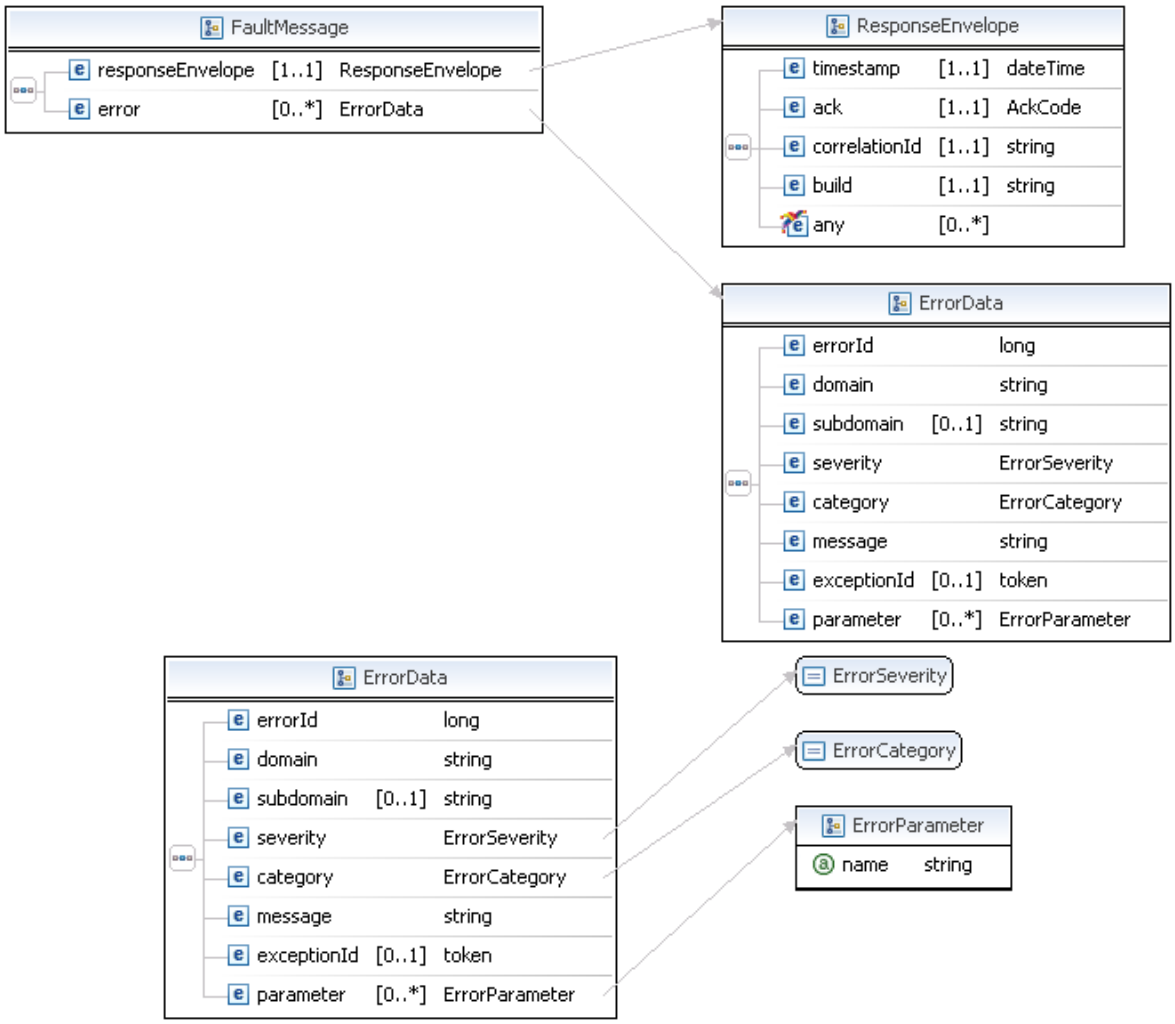
| Field | Description |
|---|---|
| scope | xs:string<br>Any number of permission categories from the following list:<br>• EXPRESS_CHECKOUT - Express Checkout<br>• DIRECT_PAYMENT - Direct payment by debit or credit card<br>• SETTLEMENT_CONSOLIDATION - Settlement consolidation<br>• SETTLEMENT_REPORTING - Settlement reporting<br>• AUTH_CAPTURE - Payment authorization and capture<br>• MOBILE_CHECKOUT - Mobile checkout<br>• BILLING_AGREEMENT - Billing agreements<br>• REFERENCE_TRANSACTION - Reference transactions<br>• AIR_TRAVEL - Express Checkout for UTAP<br>• MASS_PAY - Mass pay<br>• TRANSACTION_DETAILS - Transaction details<br>• TRANSACTION_SEARCH - Transaction search<br>• RECURRING_PAYMENTS - Recurring payments<br>• ACCOUNT_BALANCE - Account balance<br>• ENCRYPTED_WEBSITE_PAYMENTS - Encrypted website payments<br>• REFUND - Refunds<br>• NON_REFERENCED_CREDIT - Non-referenced credit<br>• BUTTON_MANAGER - Button Manager<br>• MANAGE_PENDING_TRANSACTION_STATUS includes ManagePendingTransactionStatus<br>• RECURRING_PAYMENT_REPORT - Reporting for recurring payments<br>• EXTENDED_PRO_PROCESSING_REPORT - Extended Pro processing<br>• EXCEPTION_PROCESSING_REPORT - Exception processing<br>• ACCOUNT_MANAGEMENT_PERMISSION - Account Management Permission (MAM)<br>• ACCESS_BASIC_PERSONAL_DATA - User attributes<br>• ACCESS_ADVANCED_PERSONAL_DATA - User attributes<br>• INVOICING - Invoicing |
| responseEnvelope | common:ResponseEnvelope<br>Common response information, including a timestamp and the response acknowledgement status. |

## ResponseEnvelope Fields

| Field | Description |
|---|---|
| ack | common:AckCode<br>Acknowledgement code. It is one of the following values:<br>• Success – The operation completed successfully.<br>• Failure – The operation failed.<br>• Warning – Warning.<br>• SuccessWithWarning – The operation completed successfully; however, there is a warning message.<br>• FailureWithWarning – The operation failed with a warning message. |
| build | Build number; it is used only by Developer Technical Support. |
| correlationId | Correlation ID; it is used only by Developer Technical Support.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |
| timestamp | Date on which the response was sent. The time is currently not supported.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

## PPFault Message

The `PPFaultMessage` returns `ErrorData` and the `ResponseEnvelope` information to your application if an error occurs.




### FaultMessage Fields

| Field | Description |
|---|---|
| `error` | `common:ErrorData`<br>Detailed error information. |
| `responseEnvelope` | `common:ResponseEnvelope`<br>Common response information, including a timestamp and the response acknowledgement status. |

## ErrorData Fields

| Field | Description |
|---|---|
| `category` | `common:ErrorCategory`<br>The location where the error occurred.<br>Possible values are:<br>• `System` – The system encountered errors; try again<br>• `Application` – The application encountered errors; try again<br>• `Request` – The request was incorrect |
| `domain` | The domain to which this service belongs. |
| `errorId` | A number that uniquely identifies a particular error. |
| `exceptionID` | This field is not used. |
| `message` | A description of the error. |
| `parameter` | `common:ErrorParameter`<br>Represents contextual information about the error. |
| `severity` | `common:ErrorSeverity`<br>The severity of the error encountered.<br>Possible values are:<br>• `Error` – Processing of the request was interrupted<br>• `Warning` – Processing of the request was completed |
| `subdomain` | This field is not used. |

## ResponseEnvelope Fields

| Field | Description |
|---|---|
| `ack` | `common:AckCode`<br>Acknowledgement code. It is one of the following values:<br>• `Success` – The operation completed successfully.<br>• `Failure` – The operation failed.<br>• `Warning` – Warning.<br>• `SuccessWithWarning` – The operation completed successfully; however, there is a warning message.<br>• `FailureWithWarning` – The operation failed with a warning message. |
| `build` | Build number; it is used only by Developer Technical Support. |
| `correlationId` | Correlation ID; it is used only by Developer Technical Support.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

| Field | Description |
|---|---|
| `timestamp` | Date on which the response was sent. The time is currently not supported.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

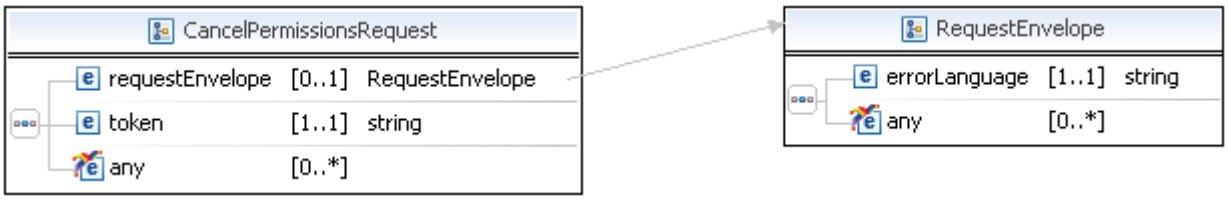
## GetPermissions Errors

| Code | Message | Additional Information |
|---|---|---|
| 580022 | Invalid Access Token | |

# 6 CancelPermissions API Operation

Use the `CancelPermissions` API operation to cancel access to a set of permissions.

## CancelPermissionsRequest Message



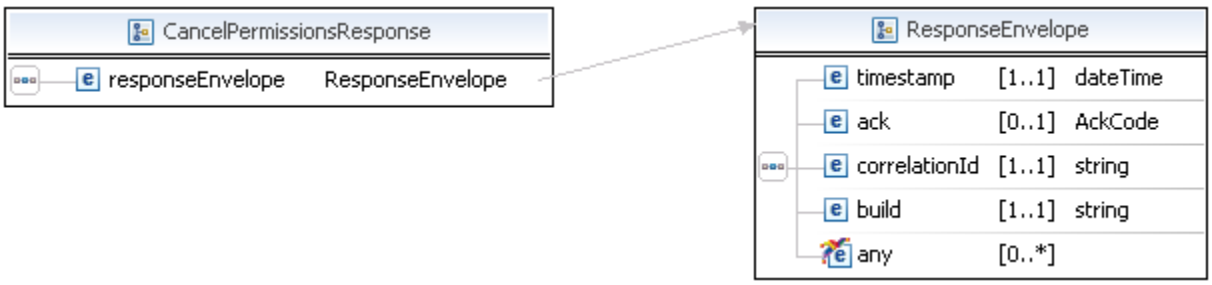

### CancelPermissionsRequest Fields

| Field | Description |
|---|---|
| `token` | `xs:string`<br>*(Required)* The access token that identifies a set of permissions to cancel. |
| `requestEnvelope` | `common:requestEnvelope`<br>*(Required)* Information common to each API operation, such as the language in which an error message is returned. |

### RequestEnvelope Fields

| Field | Description |
|---|---|
| `detailLevel` | `common:DetailLevelCode`<br>*(Optional)* Level of detail required by the client application for components. It is one of the following values:<br>• `ReturnAll` – This value provides the maximum level of detail (default). |
| `errorLanguage` | `xs:string`<br>*(Required)* RFC 3066 language in which error messages are returned; by default it is `en_US`, which is the only language currently supported. |

# CancelPermissionsResponse Message




## CancelPermissions Response Fields

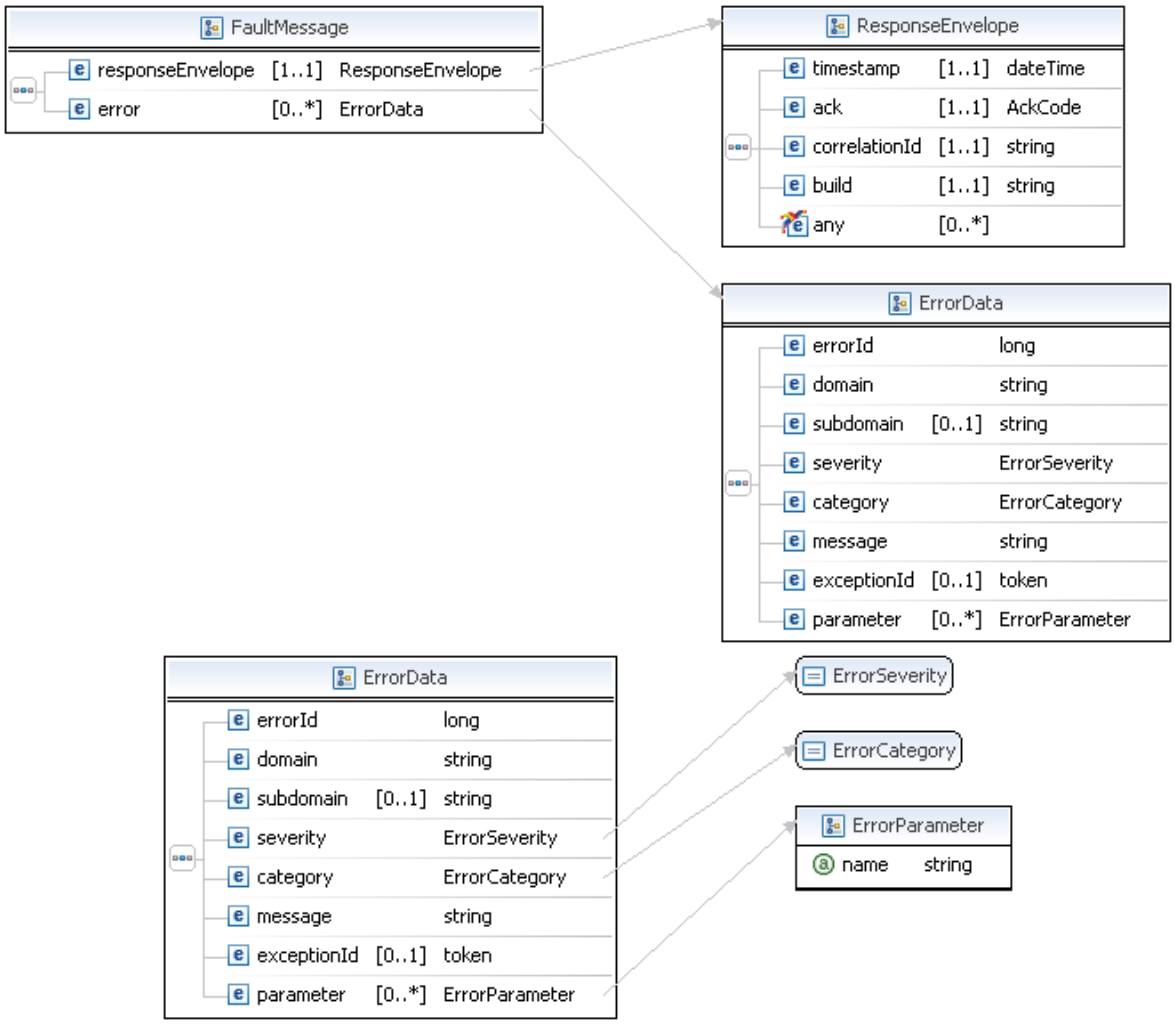
| Field | Description |
|---|---|
| `responseEnvelope` | `common:ResponseEnvelope`<br>Common response information, including a timestamp and the response acknowledgement status. |

## ResponseEnvelope Fields

| Field | Description |
|---|---|
| `ack` | `common:AckCode`<br>Acknowledgement code. It is one of the following values:<br>• `Success` – The operation completed successfully.<br>• `Failure` – The operation failed.<br>• `Warning` – Warning.<br>• `SuccessWithWarning` – The operation completed successfully; however, there is a warning message.<br>• `FailureWithWarning` – The operation failed with a warning message. |
| `build` | Build number; it is used only by Developer Technical Support. |
| `correlationId` | Correlation ID; it is used only by Developer Technical Support.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |
| `timestamp` | Date on which the response was sent. The time is currently not supported.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

## PPFault Message

The `PPFaultMessage` returns `ErrorData` and the `ResponseEnvelope` information to your application if an error occurs.




## FaultMessage Fields

| Field | Description |
|---|---|
| `error` | `common:ErrorData`<br>Detailed error information. |
| `responseEnvelope` | `common:ResponseEnvelope`<br>Common response information, including a timestamp and the response acknowledgement status. |

## ErrorData Fields

| Field | Description |
|---|---|
| `category` | `common:ErrorCategory`<br>The location where the error occurred.<br>Possible values are:<br>• `System` – The system encountered errors; try again<br>• `Application` – The application encountered errors; try again<br>• `Request` – The request was incorrect |
| `domain` | The domain to which this service belongs. |
| `errorId` | A number that uniquely identifies a particular error. |
| `exceptionID` | This field is not used. |
| `message` | A description of the error. |
| `parameter` | `common:ErrorParameter`<br>Represents contextual information about the error. |
| `severity` | `common:ErrorSeverity`<br>The severity of the error encountered.<br>Possible values are:<br>• `Error` – Processing of the request was interrupted<br>• `Warning` – Processing of the request was completed |
| `subdomain` | This field is not used. |

## ResponseEnvelope Fields

| Field | Description |
|---|---|
| `ack` | `common:AckCode`<br>Acknowledgement code. It is one of the following values:<br>• `Success` – The operation completed successfully.<br>• `Failure` – The operation failed.<br>• `Warning` – Warning.<br>• `SuccessWithWarning` – The operation completed successfully; however, there is a warning message.<br>• `FailureWithWarning` – The operation failed with a warning message. |
| `build` | Build number; it is used only by Developer Technical Support. |
| `correlationId` | Correlation ID; it is used only by Developer Technical Support.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

| Field | Description |
|---|---|
| `timestamp` | Date on which the response was sent. The time is currently not supported.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

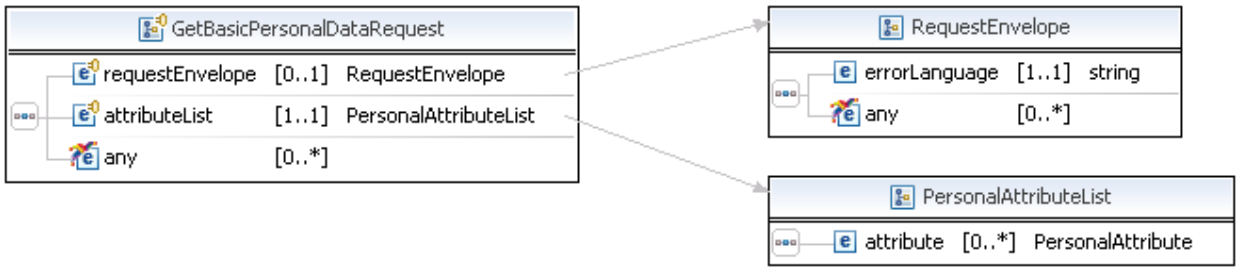
## CancelPermissions Errors

| Code | Message | Additional Information |
|---|---|---|
| 580022 | Invalid Access Token | |

# 7 GetBasicPersonalData API Operation

Use the `GetBasicPersonalData` API operation to obtain basic personal data for an account holder.

## GetBasicPersonalDataRequest Message




## GetBasicPersonalDataRequest Fields

| Field | Description |
|---|---|
| `attributeList` | `tns:PersonalAttributeList`<br>*(Required)* The list of personal attributes requested for this account. |
| `requestEnvelope` | `common:requestEnvelope`<br>*(Required)* Information common to each API operation, such as the language in which an error message is returned. |

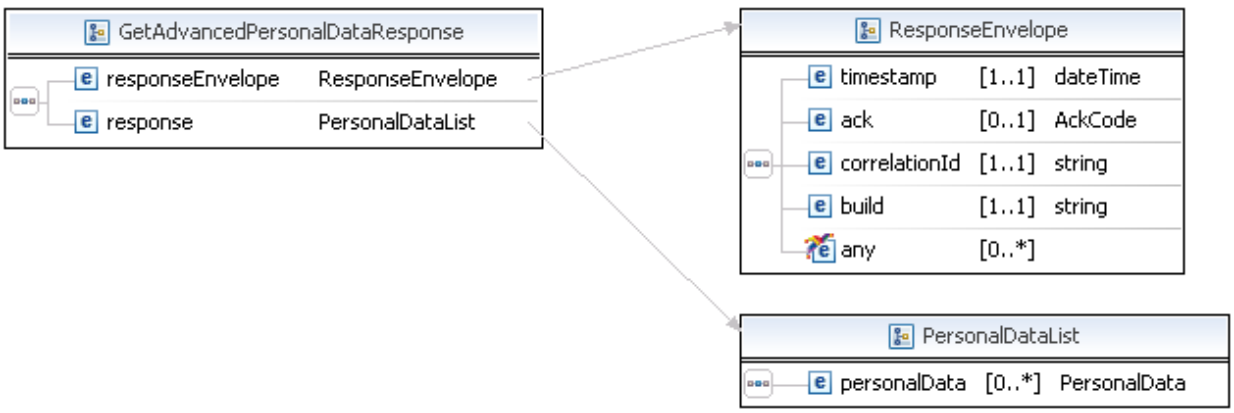
### PersonalAttributeList Fields

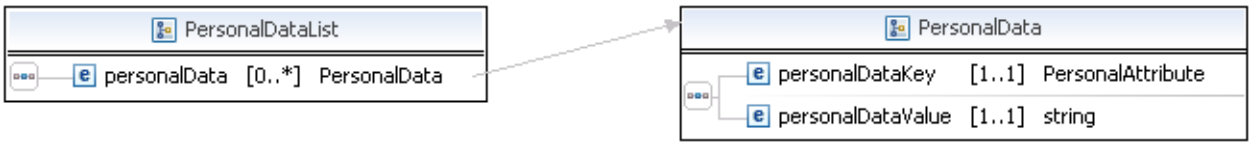
| Field | Description |
|---|---|
| `attribute` | `tns:PersonalAttribute`<br>The attributes whose values you are requesting. You specify one or more of the following URIs:<br>• `http://axschema.org/namePerson/first` – First name<br>• `http://axschema.org/namePerson/last` – last name<br>• `http://axschema.org/contact/email` – Email<br>• `http://schema.openid.net/contact/fullname` – Full name<br>• `http://openid.net/schema/company/name` – Business name<br>• `http://axschema.org/contact/country/home` – Country<br>• `https://www.paypal.com/webapps/auth/schema/payerID` – Payer ID |

### RequestEnvelope Fields

| Field | Description |
|---|---|
| `detailLevel` | `common:DetailLevelCode`<br>*(Optional)* Level of detail required by the client application for components. It is one of the following values:<br>• `ReturnAll` – This value provides the maximum level of detail (default). |
| `errorLanguage` | `xs:string`<br>*(Required)* RFC 3066 language in which error messages are returned; by default it is `en_US`, which is the only language currently supported. |

## GetBasicPersonalDataResponse Message






## GetBasicPersonalData Response Fields

| Field | Description |
|---|---|
| `response` | `tns:PersonalDataList`<br>The attributes for which you have been granted permission to access; one or more of the following URIs:<br>• `http://axschema.org/namePerson/first` – First name<br>• `http://axschema.org/namePerson/last` – last name<br>• `http://axschema.org/contact/email` – Email<br>• `http://schema.openid.net/contact/fullname` – Full name<br>• `http://openid.net/schema/company/name` – Business name<br>• `http://axschema.org/contact/country/home` – Country<br>• `https://www.paypal.com/webapps/auth/schema/payerID` – Payer ID |
| `responseEnvelope` | `common:ResponseEnvelope`<br>Common response information, including a timestamp and the response acknowledgement status. |

## PersonalDataList Fields

| Field | Description |
|---|---|
| `personalData` | `tns:PersonalData`<br>The list of name-value pairs of personal data in the response. |

## PersonalData Fields

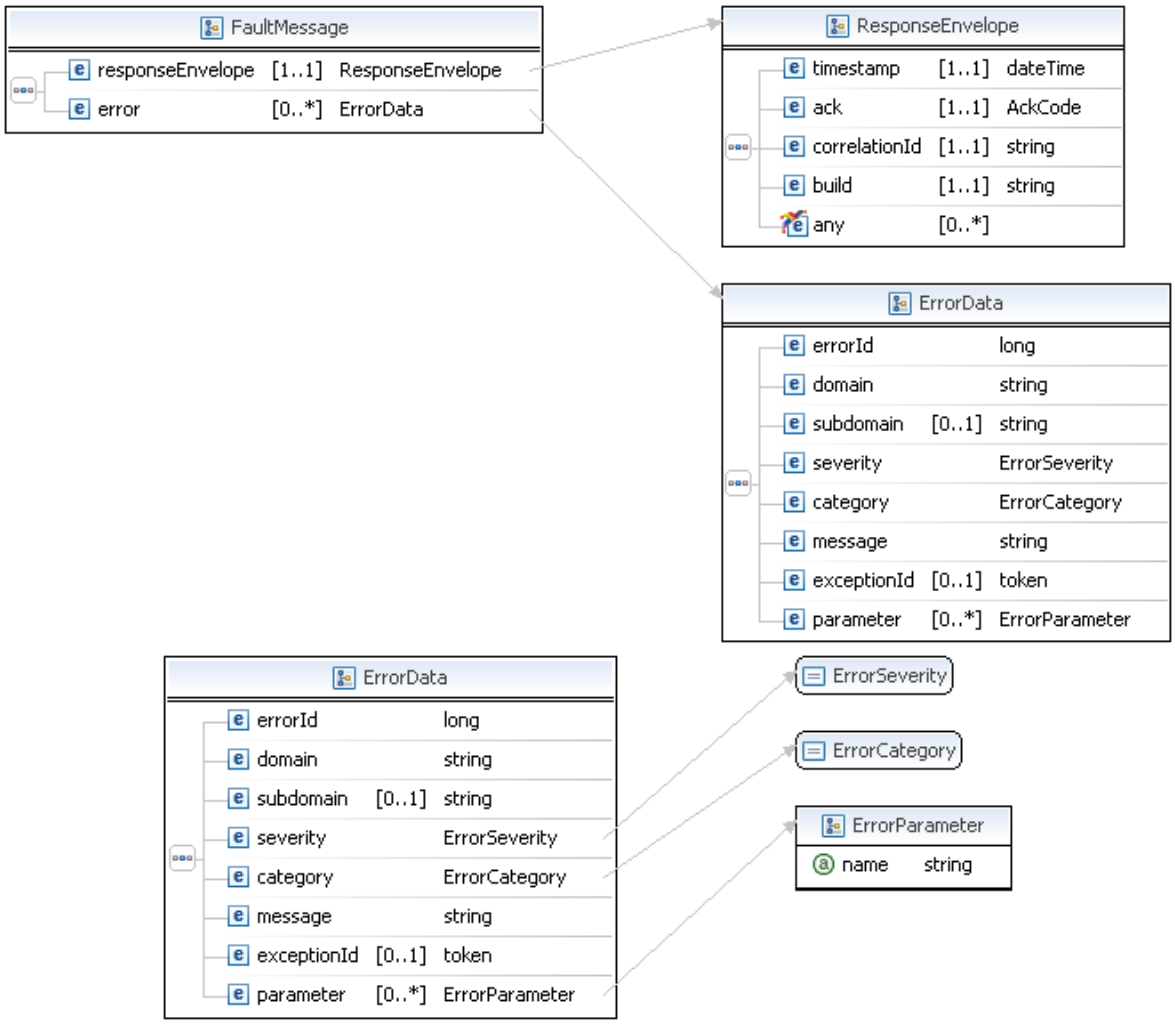
| Field | Description |
|---|---|
| `personalDataKey` | `tns:PersonalAttribute`<br>The attributes whose values you are requesting. You specify one or more of the following URIs:<br>• `http://axschema.org/namePerson/first` – First name<br>• `http://axschema.org/namePerson/last` – last name<br>• `http://axschema.org/contact/email` – Email<br>• `http://schema.openid.net/contact/fullname` – Full name<br>• `http://openid.net/schema/company/name` – Business name<br>• `http://axschema.org/contact/country/home` – Country<br>• `https://www.paypal.com/webapps/auth/schema/payerID` – Payer ID |
| `personalDataValue` | `xs:String`<br>The value associated with the key |

## ResponseEnvelope Fields

| Field | Description |
|---|---|
| `ack` | `common:AckCode`<br>Acknowledgement code. It is one of the following values:<br>• `Success` – The operation completed successfully.<br>• `Failure` – The operation failed.<br>• `Warning` – Warning.<br>• `SuccessWithWarning` – The operation completed successfully; however, there is a warning message.<br>• `FailureWithWarning` – The operation failed with a warning message. |
| `build` | Build number; it is used only by Developer Technical Support. |
| `correlationId` | Correlation ID; it is used only by Developer Technical Support.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |
| `timestamp` | Date on which the response was sent. The time is currently not supported.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

## PPFault Message

The `PPFaultMessage` returns `ErrorData` and the `ResponseEnvelope` information to your application if an error occurs.




## FaultMessage Fields

| Field | Description |
|---|---|
| `error` | `common:ErrorData`<br>Detailed error information. |
| `responseEnvelope` | `common:ResponseEnvelope`<br>Common response information, including a timestamp and the response acknowledgement status. |

## ErrorData Fields

| Field | Description |
|---|---|
| `category` | `common:ErrorCategory`<br>The location where the error occurred.<br>Possible values are:<br>• `System` – The system encountered errors; try again<br>• `Application` – The application encountered errors; try again<br>• `Request` – The request was incorrect |
| `domain` | The domain to which this service belongs. |
| `errorId` | A number that uniquely identifies a particular error. |
| `exceptionID` | This field is not used. |
| `message` | A description of the error. |
| `parameter` | `common:ErrorParameter`<br>Represents contextual information about the error. |
| `severity` | `common:ErrorSeverity`<br>The severity of the error encountered.<br>Possible values are:<br>• `Error` – Processing of the request was interrupted<br>• `Warning` – Processing of the request was completed |
| `subdomain` | This field is not used. |

## ResponseEnvelope Fields

| Field | Description |
|---|---|
| `ack` | `common:AckCode`<br>Acknowledgement code. It is one of the following values:<br>• `Success` – The operation completed successfully.<br>• `Failure` – The operation failed.<br>• `Warning` – Warning.<br>• `SuccessWithWarning` – The operation completed successfully; however, there is a warning message.<br>• `FailureWithWarning` – The operation failed with a warning message. |
| `build` | Build number; it is used only by Developer Technical Support. |
| `correlationId` | Correlation ID; it is used only by Developer Technical Support.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

| Field | Description |
|---|---|
| `timestamp` | Date on which the response was sent. The time is currently not supported.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

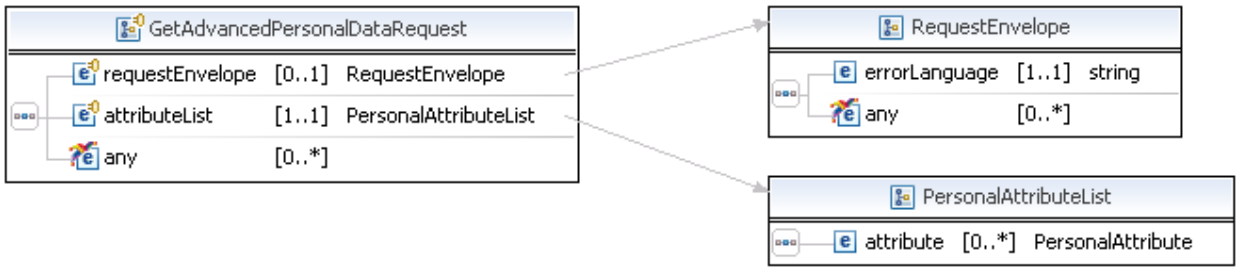
## GetBasicPersonalData Errors

| Code | Message | Additional Information |
|---|---|---|
| 580022 | Invalid Access Token | |

# 8 GetAdvancedPersonalData API Operation

Use the `GetAdvancedPersonalData` API operation to obtain sensitive personal data for an account holder.

## GetAdvancedPersonalDataRequest Message




## GetAdvancedPersonalDataRequest Fields

| Field | Description |
|---|---|
| `attributeList` | `tns:PersonalAttributeList`<br>*(Required)* The list of personal attributes requested for the account. |
| `requestEnvelope` | `common:requestEnvelope`<br>*(Required)* Information common to each API operation, such as the language in which an error message is returned. |

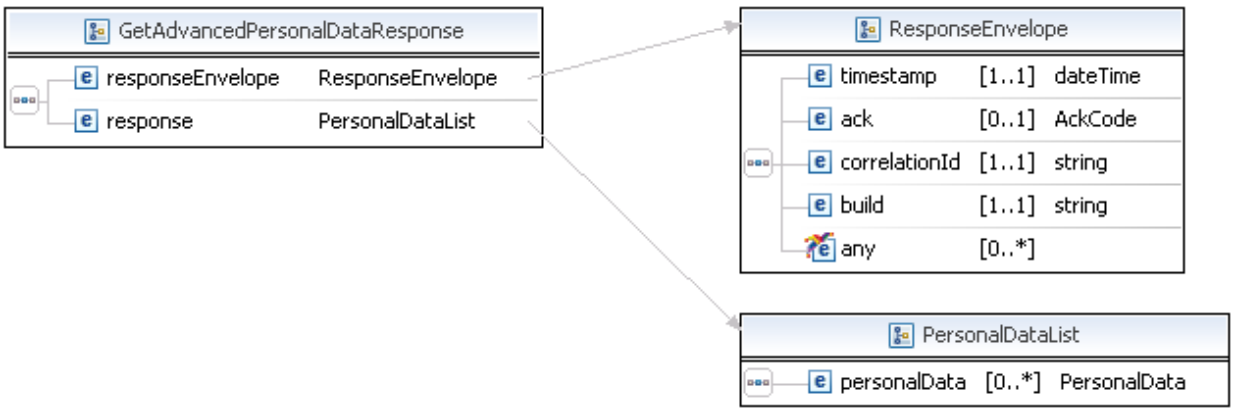
### PersonalAttributeList Fields

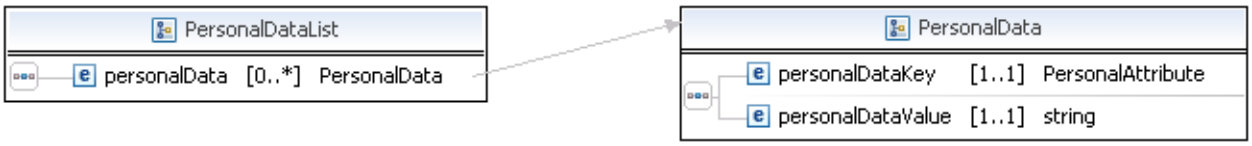
| Field | Description |
|---|---|
| `PersonalAttribute` | The attributes whose value you are requesting. You specify one or more of the following URIs:<br>• `http://axschema.org/birthDate` – Date of birth<br>• `http://axschema.org/contact/postalCode/home` – Postcode<br>• `http://schema.openid.net/contact/street1` – Street1<br>• `http://schema.openid.net/contact/street2` – Street2<br>• `http://axschema.org/contact/city/home` – City<br>• `http://axschema.org/contact/state/home` – State<br>• `http://axschema.org/contact/phone/default` – Phone |

### RequestEnvelope Fields

| Field | Description |
|---|---|
| `detailLevel` | `common:DetailLevelCode`<br>*(Optional)* Level of detail required by the client application for components. It is one of the following values:<br>• `ReturnAll` – This value provides the maximum level of detail (default). |
| `errorLanguage` | `xs:string`<br>*(Required)* RFC 3066 language in which error messages are returned; by default it is `en_US`, which is the only language currently supported. |

## GetAdvancedPersonalDataResponse Message






## GetAdvancedPersonalData Response Fields

| Field | Description |
|---|---|
| `responseEnvelope` | `common:ResponseEnvelope`<br>Common response information, including a timestamp and the response acknowledgement status. |

## PersonalDataListFields

| Field | Description |
|---|---|
| `personalData` | `tns:PersonalData`<br>The list of name-value pairs of personal data in the response. |

## PersonalData Fields

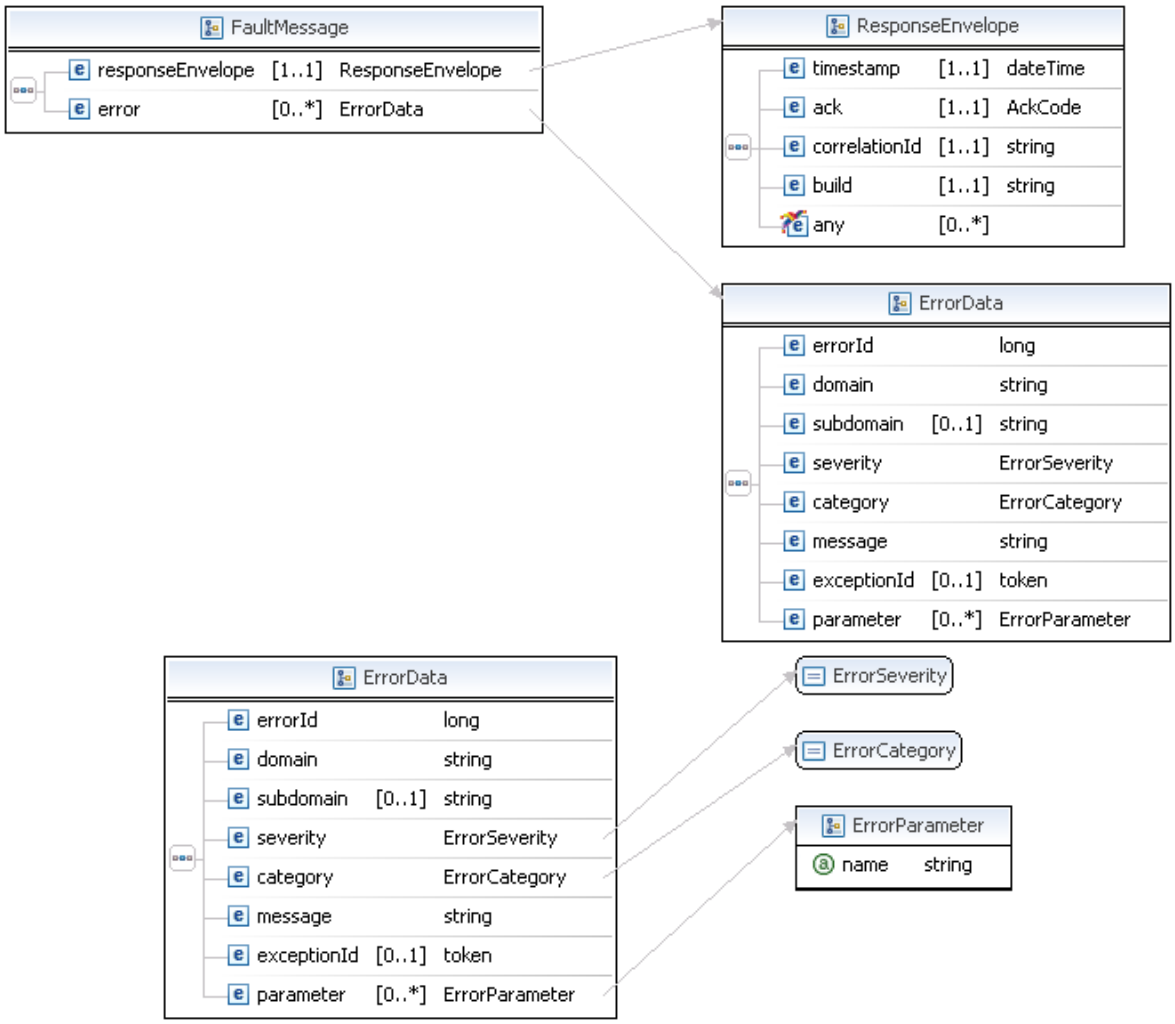
| Field | Description |
|---|---|
| `personalDataKey` | `tns:PersonalAttribute`<br>The attributes whose values you are requesting. You specify one or more of the following URIs:<br>• `http://axschema.org/namePerson/first` – First name<br>• `http://axschema.org/namePerson/last` – last name<br>• `http://axschema.org/contact/email` – Email<br>• `http://schema.openid.net/contact/fullname` – Full name<br>• `http://openid.net/schema/company/name` – Business name<br>• `http://axschema.org/contact/country/home` – Country<br>• `https://www.paypal.com/webapps/auth/schema/payerID` – Payer ID |
| `personalDataValue` | `xs:String`<br>The value associated with the key |

## ResponseEnvelope Fields

| Field | Description |
|---|---|
| ack | common:AckCode<br>Acknowledgement code. It is one of the following values:<br>• Success – The operation completed successfully.<br>• Failure – The operation failed.<br>• Warning – Warning.<br>• SuccessWithWarning – The operation completed successfully; however, there is a warning message.<br>• FailureWithWarning – The operation failed with a warning message. |
| build | Build number; it is used only by Developer Technical Support. |
| correlationId | Correlation ID; it is used only by Developer Technical Support.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |
| timestamp | Date on which the response was sent. The time is currently not supported.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

## PPFault Message

The `PPFaultMessage` returns `ErrorData` and the `ResponseEnvelope` information to your application if an error occurs.




## FaultMessage Fields

| Field | Description |
|---|---|
| `error` | `common:ErrorData`<br>Detailed error information. |
| `responseEnvelope` | `common:ResponseEnvelope`<br>Common response information, including a timestamp and the response acknowledgement status. |

## ErrorData Fields

| Field | Description |
|---|---|
| `category` | `common:ErrorCategory`<br>The location where the error occurred.<br>Possible values are:<br>• `System` – The system encountered errors; try again<br>• `Application` – The application encountered errors; try again<br>• `Request` – The request was incorrect |
| `domain` | The domain to which this service belongs. |
| `errorId` | A number that uniquely identifies a particular error. |
| `exceptionID` | This field is not used. |
| `message` | A description of the error. |
| `parameter` | `common:ErrorParameter`<br>Represents contextual information about the error. |
| `severity` | `common:ErrorSeverity`<br>The severity of the error encountered.<br>Possible values are:<br>• `Error` – Processing of the request was interrupted<br>• `Warning` – Processing of the request was completed |
| `subdomain` | This field is not used. |

## ResponseEnvelope Fields

| Field | Description |
|---|---|
| `ack` | `common:AckCode`<br>Acknowledgement code. It is one of the following values:<br>• `Success` – The operation completed successfully.<br>• `Failure` – The operation failed.<br>• `Warning` – Warning.<br>• `SuccessWithWarning` – The operation completed successfully; however, there is a warning message.<br>• `FailureWithWarning` – The operation failed with a warning message. |
| `build` | Build number; it is used only by Developer Technical Support. |
| `correlationId` | Correlation ID; it is used only by Developer Technical Support.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

| Field | Description |
|---|---|
| `timestamp` | Date on which the response was sent. The time is currently not supported.<br>**NOTE:** You must log and store this data for every response you receive. PayPal Technical Support uses the information to assist with reported issues. |

## GetAdvancedPersonalData Errors

| Code | Message | Additional Information |
|---|---|---|
| 580022 | Invalid Access Token | |

# 9 Permission Commands

The web flows associated with Permissions Service require you to redirect the account holder's browser to PayPal. When you redirect to the `webscr` endpoint, you must send a command that identifies the flow and associated parameters.

## _grant-permission Command

The account holder can log in to paypal.com and grant permissions to you when you redirect the account holder's browser to paypal.com with the `_grant-permission` command.

### Redirect to PayPal using the _grant-permission command

Redirect to PayPal:

```
https://www.paypal.com/cgi-bin/webscr?
cmd=_grant-permission&request_token=token
```

| Parameter | Description |
|---|---|
| **cmd** | *(Required)* `_grant-permission` |
| **request_token** | *(Required)* The token from the `RequestPermissions` response message. |

### Response to _grant-permission command from PayPal

PayPal redirects to the callback URL you set in the `RequestPermissions` request. It may include the following parameters:

| Parameter | Description |
|---|---|
| **verification_code** | Verification code; returned if the account holder agreed to grant permissions. Expires after 15 minutes. |
| **request_token** | The token from the `RequestPermissions` response message; returned if the account holder agreed to grant permissions. |
| **Error** | An error code, which is equal to **Internal Error** if an error occurred. |

If the account holder canceled, no parameters are returned.

# Past Releases

Permissions Service is intended for developers implementing solutions that require executing a PayPal API operation on behalf of an account holder. Enhancements introduced in past releases are described here.

## Release 84.0 Features

Release 84.0 of the Permissions API introduces two new permission groups and two new APIs.

**NOTE:** Changes to API operations are backward-compatible.

### Addition of Two New Groups

| Display description | Group ID includes |
|---|---|
| New:<br>Obtain basic attributes for specified user, such as first name, last name, and payer ID. | `ACCESS_BASIC_PERSONAL_DATA` required for `GetBasicPersonalData`<br>**NOTE:** You must have prior approval from PayPal to request this permission. |
| New:<br>Obtain advanced attributes for specified user, such as date of birth and phone. | `ACCESS_ADVANCED_PERSONAL_DATA` required for `GetAdvancedPersonalData`<br>**NOTE:** You must have prior approval from PayPal to request this permission. |

### Addition of Two New APIs

| API | Description |
|---|---|
| New:<br>`GetBasicPersonalData` | Request to retrieve basic personal data for an account holder. Accepts PersonalAttributeList as request, and responds with PersonalDataList. This call will accept only ‘Basic’ attributes and ignore others. |
| New:<br>`GetAdvancedPersonalData` | Request to retrieve more sensitive personal data for an account holder. Accepts PersonalAttributeList as request, and responds with PersonalDataList. This call will accept both ‘Basic’ and Advanced attributes. |

# Release 74.0 Features

Release 74.0 of the Permissions API introduces several new permission categories and, language support, and redirect response parameters.

**NOTE:** Changes to API operations are backward-compatible.

## Changes to Permission Categories

| Display description | Group ID includes |
|---|---|
| Consolidate funds from two or more child accounts into a master account. | `SETTLEMENT_CONSOLIDATION` includes Settlement Consolidation; valid for all countries except Indonesia, Turkey, Estonia, and the Russian Federation<br>**NOTE:** You must have prior approval from PayPal to request this permission. |
| Provide reporting for consolidated funds. | `SETTLEMENT_REPORTING` includes Settlement Reporting; valid for all countries except Indonesia, Turkey, Estonia, and the Russian Federation<br>**NOTE:** You must have prior approval from PayPal to request this permission. |
| New:<br>Reporting for recurring payments | `RECURRING_PAYMENT_REPORT`; valid for all countries except Indonesia, Turkey, Estonia, and the Russian Federation |
| New:<br>Extended Pro processing | `EXTENDED_PRO_PROCESSING_REPORT`; valid for all countries except Indonesia, Turkey, Estonia, and the Russian Federation |
| New:<br>Exception processing | `EXCEPTION_PROCESSING_REPORT`; valid for all countries except Indonesia, Turkey, Estonia, and the Russian Federation |
| New:<br>Account Management Permission (MAM) | `ACCOUNT_MANAGEMENT_PERMISSION`; valid for all countries except Indonesia, Turkey, Estonia, and the Russian Federation |

## Changes to RequestPermissionRequest Fields for Release 74.0

| Field | Description |
|---|---|
| scope | xs:string<br>*(Required)* New values:<br>• RECURRING_PAYMENT_REPORT - Reporting for recurring payments<br>• EXTENDED_PRO_PROCESSING_REPORT - Extended Pro processing<br>• EXCEPTION_PROCESSING_REPORT - Exception processing<br>• ACCOUNT_MANAGEMENT_PERMISSION - Account Management Permission (MAM) |

## Changes to GetAccessTokenRespone and GetPermissionsResponse Fields for Release 74.0

| Field | Description |
|---|---|
| scope | xs:string<br>New values:<br>• RECURRING_PAYMENT_REPORT - Reporting for recurring payments<br>• EXTENDED_PRO_PROCESSING_REPORT - Extended Pro processing<br>• EXCEPTION_PROCESSING_REPORT - Exception processing<br>• ACCOUNT_MANAGEMENT_PERMISSION - Account Management Permission (MAM) |

# Permissions Service Revision History

The revision history identifies changes to Permissions Service documentation at a high level.

| Date | Description |
|---|---|
| 05/02/12 | Maintenance release. |
| 02/09/12 | Maintenance release. |
| 10/09/11 | Added new groups and APIs for getting personal data. This version of the guide corresponds to release version 84. |
| 05/24/11 | Added new permission groups and information about return parameters for the redirect. This version of the guide corresponds to release version 74. |
| 04/05/11 | Initial release draft, which corresponds to release version 71. This guide replaces the earlier Permissions Service guide, last published in October, 2009, which was based on a non-platform API. |
| 10/22/10 | Initial draft for version 1.6.0. |

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