

# FIS XML Alerts

Technical Integration Guide  
Version 3

August 2018

Empowering  
the Financial World





## Revision History

Date	Revision Number	Description	Author
10/29/2010	1.1	Draft	BSA Team
3/22/2011	1.2	Added Enrollment messages	BSA Team
3/22/2011	1.3	Additional Enrollment messages	BSA Team
9/7/2011	1.4	Added Group Codes	BSA Team
5/1/2013	1.5	Added Transaction Flows	BSA Team
11/17/2014	1.6	Updated URL's, Payload and Response documentation and connectivity to Internet and client provided certificate method only.	BSA Team
09/2017	2.0	Updated XML Elements to identify fields that, although included in the XML feed, are not populated from the data base at this time (future use); Updated API URL data; Provided additional info in the Alerts Acknowledgement section	BSA Team
09/2018	3.0	Updated the connectivity methods Included oAuth 2.0 in the connection framework Included XML Field specification Included CardNumber Masking detail	BSA Team



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## Introduction

The “**FIS XML Alerts**” is part of the **FIS Alerts** family of products. It provides you near-real-time delivery of the data you require to initiate cardholder alerts via your Text Message, Email or other alerting systems.

We will do the following:

- Identify which accounts are configured for receipt of XML Alerts
- Identify the triggering event that occurred on the FIS platform (e.g. Authorization Approval, Authorization Decline, etc.),
- Identify the media type to be generated (i.e. XML),
- Populate all data values needed within the XML message to be generated and sent to the customer.
- Retry the transmission of the alert (DLQ – Dead Letter Queue) if the alert was failed for some reason.

Costs associated with the initial deployment and ongoing use of the service include:

- Initial, one-time Setup costs
- Per Transaction costs for each message sent and successfully delivered to the client via the agreed upon delivery mechanism (subject to a Monthly Minimum charge for use of the service)

For specific pricing, please contact your FIS Account Manager.

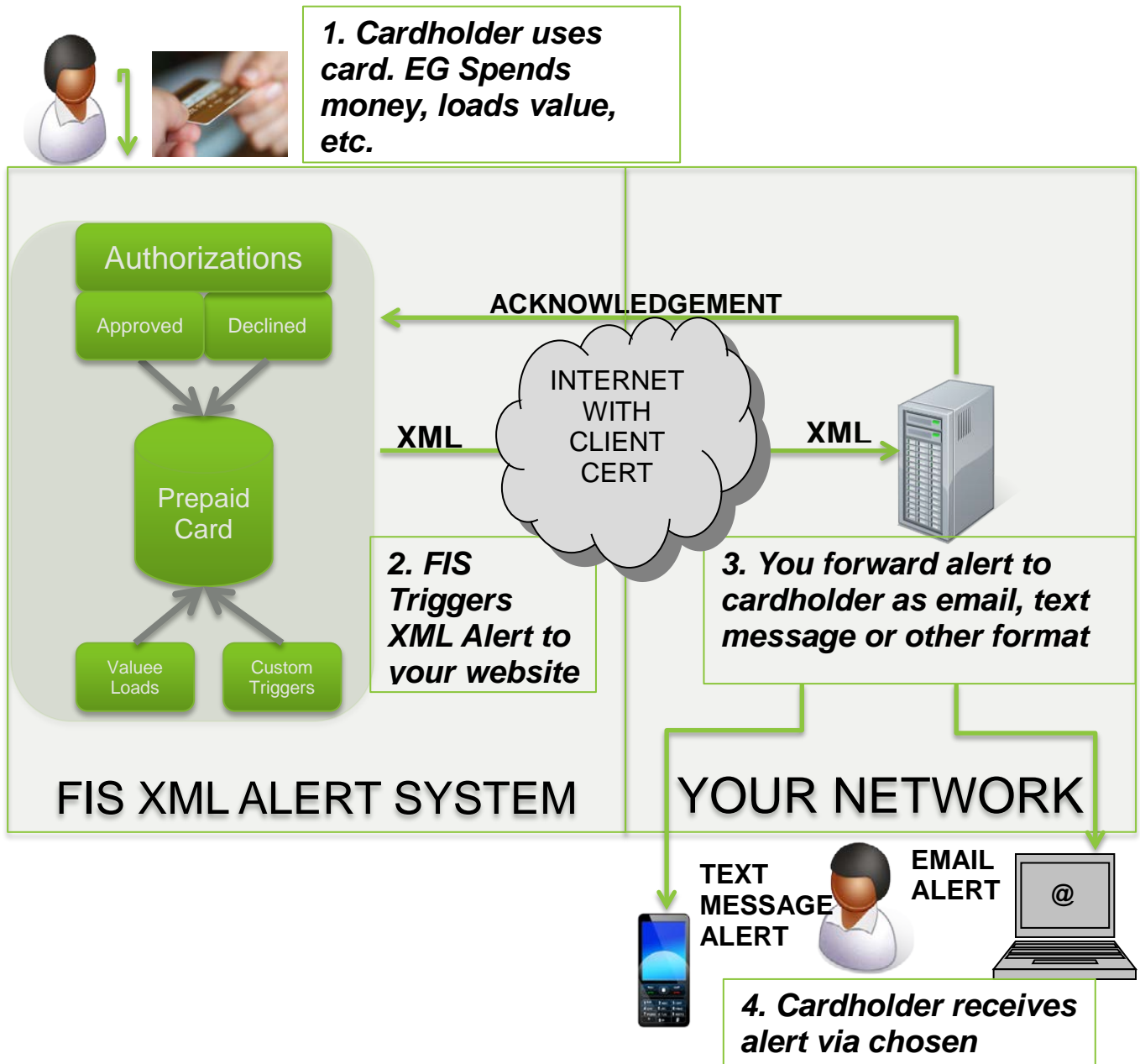


Figure 1: FIS XML Alerts Diagram



## Triggering Event Support

### Standard Supported Events

The following card-related events can be configured for XML Alerts

- **Value Load** – Triggered when a Value Load transaction occurs. For specific event triggers, see [Mapping of Group/Transaction codes to Alert Types](#)
- **Authorization Approval** Triggered when an Authorization transaction occurs at a point of sale or ATM. For specific event triggers, see [Mapping of Group/Transaction codes to Alert Types](#). *NOTE: Authorization Alerts are triggered when the authorization occurs, not when it settles.*
- **Authorization Decline** Triggered when an Authorization Decline is provided by FIS for any Purchase or ATM Withdrawal transaction. For specific event triggers, see [Mapping of Group/Transaction codes to Alert Types](#)

### Custom Supported Events

In addition to the above standard alerts, FIS Prepaid has many custom alerts available for configuration. Please review **the FIS XML Alerts Configuration Request Form** for the current listing of available custom alerts.

### New Custom Triggering Events

In addition to the standard and custom alerts already available and supported, you may request custom development to add support for additional “Event Types” to meet your specific messaging needs. See [Transaction Codes](#) for which custom alerts can be configured.

### Multi-Alert Triggering Events

When a single event occurs that qualifies for multiple messages (i.e.; MsgId), a single notification will be sent with containing all of the alert detail.

Example: An authorization performed via the internet (CardNotPresent) on an international site (International Transaction) will result in 1 XML alert containing the three separate alert details.



```
</Notification>
- <Notifications>
- <Message MsgType="RTN">
  <Msg MsgAddress="Test@crest.com" LanguageId="1" PANLevel="true" UniqueMsgID="362DC7F4-D74E-4DEB-8452-32AE7A2132E5" MsgId="MT15"/>
  <Msg MsgAddress="Test@crest.com" LanguageId="1" PANLevel="true" UniqueMsgID="0322959A-34D5-4FAA-B49D-9828F59AE456" MsgId="MT16"/>
  <Msg MsgAddress="Test@crest.com" LanguageId="1" PANLevel="false" UniqueMsgID="9304F7F3-5972-4F23-B178-45106102849C" MsgId="MT7"/>
</Message>
</Notifications>
</Event>
```

## Integration Steps

### Step 1: Establish Connectivity

FIS delivers XML alerts via HTTPS and supports the following optional authentication methods for delivering the XML alerts.

- A. HTTPS with user name / password
- B. HTTPS with Client Certificate
- C. HTTPS with OAuth 2.0

Also to establish the connectivity we need the following

1. FIS Prepaid provides the client with our IP Address for whitelisting
2. Client provides FIS Prepaid with their IP address(s) for whitelisting
3. Client provides a destination URL for XML Alerts

### HTTPS with User name and Password

A user name and password can be configured in our system, so that FIS will be providing the user name and password in every HTTPS connection in the header section. Client can validate the authenticity of the transmission with this user name and password.

### HTTPS with Client Certificate

Client certificate is a type of digital certificate that is used by client systems to make authenticated requests to a remote server. Client certificates play a key role in many mutual authentication designs, providing strong assurances of a requester's identity.

Client issues FIS a digital certificate to be stored on the FIS database.

- a. The certificate will be used to authenticate the XML alert payload to the client
- b. Client should specify the Certificate Serial Number in the setup form. This is required to initiate the XML alert in FIS system.





## HTTPS with OAuth 2.0

OAuth is an open standard for access delegation, commonly used as a way for Internet users to grant websites or applications access to their information on other websites but without giving them the passwords. This mechanism is used by companies such as Amazon, Google, Facebook, Microsoft and Twitter to permit the users to share information about their accounts with third party applications or websites.

### Steps involved in OAuth 2.0 Authentication

1. FIS registers with Client, and obtains a secret and an ID.
2. When alert is being initiated, FIS will request the client via OAuth 2.0 webservice and gets token information. This token will have certain period of life time.
3. FIS will transmit the alert in HTTPS format along with the token information in the header section.
4. The same key will be used for the subsequent alerts triggered from FIS.
5. Before the token expires, FIS will request new token and will be using that for subsequent alerts.

FIS can support OAuth2.0 authentication method for Real Time Notification (RTN / XML) alert integration, provided the following are available.

- The Client who requires the OAuth2.0 authentication, should already have hosted the OAuth2.0 Token service
- The Client to provide the Token Endpoint URL to FIS  
Example: `https://hostname.com/oauth/token_service`
- Supported Grant Type is "Client Credential" only
- The Client should provide the following uniquely identifiable values to FIS
  - Client ID
  - Client Secret
- FIS will hit the Client's Token Endpoint URL with the provided Client ID, Client Secret and in the following method
  - **Method:** HTTP POST
  - **ContentType:** application/x-www-form-urlencoded
  - **Post Data:**  
`grant_type=client_credentials&client_id=ClientID_provided_to_FIS&client_secret=ClientSecret_provided_to_FIS`



- The Client's Token Service should respond in JSON format for both Successful and Unsuccessful response as described in the following documentation

<https://www.oauth.com/oauth2-servers/access-tokens/access-token-response/>

- The Successful Response should contain the following (fields are case-sensitive as shown in the sample)
  - Access token
  - Token type (Bearer)
  - Expiration time (in milliseconds)
  - Scope (optional)

### Example for Successful Reponse

```
HTTP/1.1 200 OK
Content-Type: application/json
Cache-Control: no-store
Pragma: no-cache

{
  "access_token": "MTQ0NjJkZmQ5OTM2NDE1ZTZjNGZmZjI3",
  "token_type": "bearer",
  "expires_in": 3600,
  "scope": "create"
}
```

- The Unsuccessful Response should contain the following (fields are case-sensitive as shown in the sample)
  - Error number
  - Error description

### Example for Failed Reponse

```
HTTP/1.1 400 Bad Request
Content-Type: application/json; charset=UTF-8
Cache-Control: no-store
Pragma: no-cache

{
  "error": "invalid_request",
  "error_description": "Invalid Client credentials."
}
```



- FIS will use the “access\_token” provided by the Client for further XML alerts transmissions in HTTP POST until it expires
- Upon expiration of the provided “access\_token”, FIS will hit the Token Endpoint again to get the new token
- The following will be added to the Header of XML alert transmission method
  - Authorization: Bearer *access\_token*
  - Content-Type: text/xml; encoding='utf-8' (or) application/x-www-form-urlencoded
  - Optional Headers:
    - timestamp: *MM/DD/YYYY hh:mm:ss AM/PM*
    - Other static custom Headers can be added if requested

## Step 2: Configure Cardholder Enrollments

If the alert is required only for the enrolled cardholders, you must establish that cardholder as enrolled. To support this, we have three API calls, initiated by you, using our A2A service, via a HTTPS Post call, which will allow you to manage cardholder enrollments:

- GetClientConfig
- GetCardholderEnrollmentWithAddIParams
- SetCardholderEnrollmentWithAddIParams

Full documentation available at:

<https://clientportal.fnfis.com/sites/prepaid2a/A2A%20Calls/Forms/View%20A2A%20Calls.aspx>  
<https://clientportal.fnfis.com/sites/prepaid2a/Reference%20%20WSDLs/Forms/AllItems.aspx>

XML Alerts can be configured at the subprogram level, the program level or the Top Client ID level. Each of these configuration options allow for the individual Cardholder Enrollment option. Clients may also opt for no cardholder enrollment option, resulting in XML alerts for all cards with transactions for which an AlertID is configured.

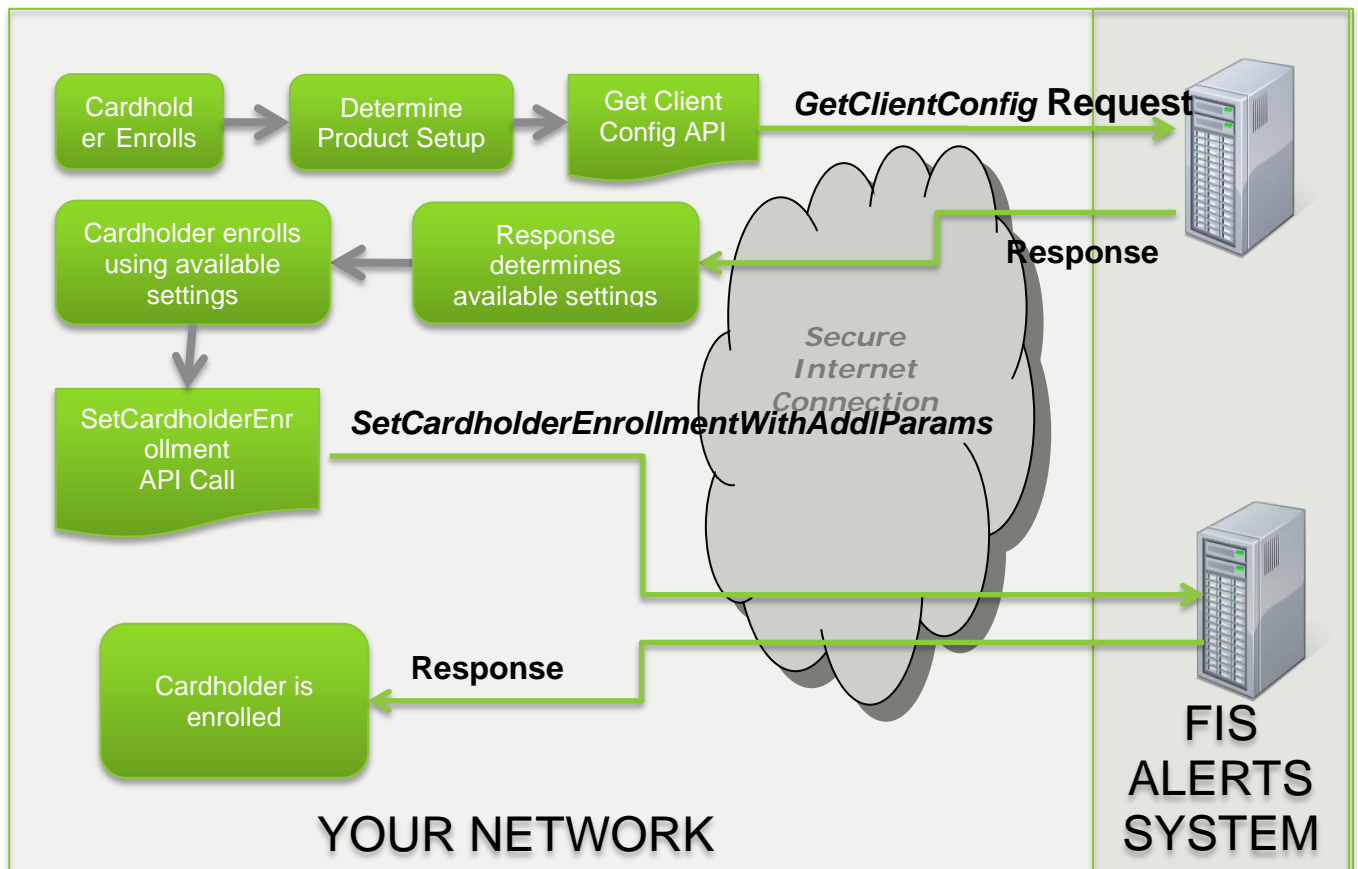


Figure 2: Enrolling Cardholders

You can read the above documentation with a simple SSL connection. However, to proceed with testing, you will need the following:

- SSL Connection AND IP Filtered by FIS AND a Digital Certificate

URL for testing:

<https://a2a.uatfisprepaid.com/a2asoa/v2008/001/notification.aspx>

Production URL:

<https://a2a.fisprepaid.com/a2asoa/v2008/001/notification.aspx>



## GetClientConfig

### Purpose:

Use this API call to determine the availability for enrollment at a card, Client, Program or Subprogram level. Note that when selecting this call at the card level, it tells you what the card is **eligible** to be configured for. It does not tell you what the card is currently configured for (use GetCardholderEnrollmentWithAddIParams for this instead),

### Critical Data Elements:

#### MsgId/MsgDescription:

MT6=Value Load

MT7=Authorization Approval

MT8=Authorization decline

#### ClientConfigStatus:

0=Not Configured

1=Configured

## GetCardholderEnrollmentWithAddIParams

### Purpose:

Use this API call to determine if a cardholder is enrolled (if the configuration is set to cardholder opt-in), and if so, what messages they are enrolled for.

### Critical Data Elements:

#### Status

0=Cardholder is not Enrolled, no enrollment requested

1=Pending. Cardholder has not yet confirmed their enrollment

2=Active. Cardholder is enrolled

3=Inactive. Cardholder requested enrollment, and did not confirm their enrollment within the allotted time

## SetCardholderEnrollmentWithAddIParams

### Purpose:

Use this API call for all of the following purposes:

- Enroll a cardholder
- Update an existing enrollment, including:
  - changing the email address to which an email alert will be sent
  - changing the telephone number to which a text message alert will be sent
  - changing which messages are sent
- Remove a cardholders previous enrollment

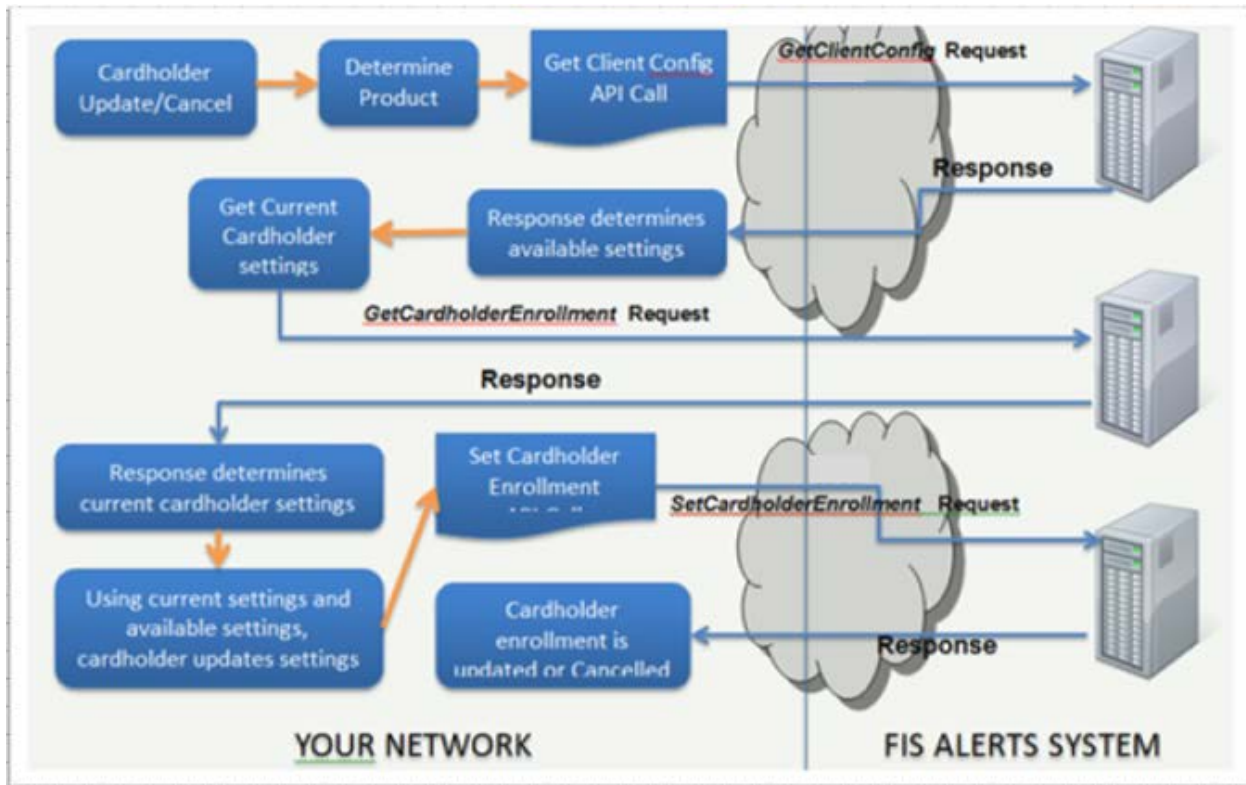


Figure 3: Update/Remove Cardholder Enrollment

Step 3: Receive Alerts

Step 3a: XML Alert Payload from FIS to you

When an event occurs for which you are configured, FIS will send you an XML Alert. The alert will be delivered in the attached format. Please refer to the "Test\_XML\_M17\_Alert\_Client.xml" and "Payload.xsd" attachments.

The XML alert will be delivered in HTTPS post. FIS supports only ASCII and UTF8 content types.



## Explanations of XML Elements

The table below describes the different elements that may appear in your XML Alert payloads.

Group	Element	Mandatory	Type	Comments
Address	Line 1	Future Use	String(50)	Street Address Line 1
	Line 2		String(50)	Street Address Line 2
	City		String(35)	Could be a town or locality in some countries
	State		String(25)	Generic, can be state, province, county, etc
	Zip		String(30)	Generic, can be postal code, Indian PIN, etc.
	Country		ComplexType	Country Information
	: Countrycode		Integer(3)	See <a href="#">Country Code</a> Table
	: VisaCode		String(2)	See <a href="#">Visa Code</a> Table
	: PhoneCode		Integer(5)	See <a href="#">Phone Code</a> Table
	Phone		ComplexType	Telephone Number
	:Extension		String(8)	Telephone Extension
Name	First	Complex Type	String(50)	Cardholders first name
	Middle		String(1)	Cardholders middle initial
	Last		String(50)	Cardholders last name
Value	CurrCode	Future Use	String(3)	See <a href="#">CURRENCY CODE-NUMERIC</a> Table
	CurrAlpha		String(3)	See <a href="#">CURRENCY CODE-ALPHA</a> Table
Person	Person ID	Future Use	Integer(10)	Numeric personal identifier on the FIS system
	SSN		String(9)	Social Security Number
	Name		Complex Type	This is the name that appears on the card, if any
	Relation		Integer(3)	See <a href="#">Relationship Type Map</a> (Code Column)
	: Description		String(12)	See <a href="#">Relationship Type Map</a> (description Column)
	Address		ComplexType	See <a href="#">Address</a> Group above



Group	Element	Mandatory	Type	Comments
Client	Client ID	Y	Integer(10)	The Client ID on the FIS Hierarchy on which the alert event took place
	Client Name	Y	String(30)	The Client name associated with the above Client ID
	Client Acronym	N	String(6)	Non-Unique six letter acronym representing the client name (not normally used)
	Client Specific ID	N	String(36)	This is an ID you can optionally configure on the FIS hierarchy to map an FIS Client ID to an identifier that means something to you, such as a Branch ID.
	Domain Name		ComplexType	For FIS Internal use
	:DomainName	N	String(100)	
	: DomainID	N	Integer(10)	
	CsPhone	N	String(15)	
SubProgram	SubProgramID	Y	Integer(10)	This identifies the SubProgram on which the Alert took place
	SubProgramName	N	String(80)	This is the name associated with the above SubProgram
	MinLoadAmt	Future Use	Numeric(19,4)	Minimum amount that can be loaded to cards on this SubProgram in a single value load
	maxLoadAmt	Future Use	Numeric(19,4)	Maximum amount that can be loaded to cards on this SubProgram in a single value load
Purse	PurseNumber		ComplexType	In a Subprogram that has multiple 'purses' of funds for different purposes, this identifies the specific purse for the Alert. Most SubPrograms do not have multiple purses.
	:PurseNumber	Y	Integer(10)	Purse Number
	:Description	Future Use	String	Description of purse
	AuthBalance	Y	Numeric(19,4)	Open to Buy Balance
	SettleBalance	Y	Numeric(19,4)	Remaining funds after transaction settled
	StartingBalance	N	Numeric(19,4)	Original Balance when card was first issued
	TotalValue	N	Numeric(19,4)	Cumulative total of all value loaded to card over card lifetime





Group	Element	Mandatory	Type	Comments
Card	CardNumber	Y	String(19)	Card number for the Alert. By default, will present in the clear. If proxy is also setup for the program, can be configured to be masked and will present with first six numbers masked. <b>Example: xxxxxx1234567890</b>
	Proxy	Conditional	String(30)	If the card has a proxy number, it will be presented. When Proxy is present, can be configured for CardNumber masking.
	Status		ComplexType	Card status at the time of the alert. See <a href="#">CARD STATUS MAP</a> .
	:Status	Y	Integer(10)	Numeric status. See <a href="#">CARD STATUS MAP</a> for a list of valid numeric status codes.
	:name	Y	String(10)	Descriptive name. See <a href="#">CARD STATUS MAP</a> for a list of valid names.
	OriginalActivationDate	N	String(25)	Original Card Activation date. Refers to the Card, not the account.
	PersonID	N	Integer(10)	Non-Personalized cards may not always have an associated person, therefore they will not have an associated Person ID
	SubProgram	N	<a href="#">ComplexType</a>	Contains SubProgram ID and SubProgram Name
	PAN	Y	Boolean(1)	Will be “true” if this is the Primary Account Number, “false” if this is a secondary or other non-primary card.
Account	Card		ComplexType	See <a href="#">Card</a> Group Above
	Purse		ComplexType	See <a href="#">Purse</a> Group Above
	DirectAccess		ComplexType	If the Account is configured for using the ACH network, it will have DirectAccess
	:DAAcct	Future Use	String(13)	Account Number for ACH
	:TRN	Future Use	String(9)	Routing transit Number for ACH
Transaction	TXNUID	Y	String(36)	Transactions Unique Identifier
	RequestCode		ComplexType	FIS Request Code. (Most users will ignore this value)



	:RequestCode	Y	Integer(10)	Request Code ID
	:Name	Y	String(20)	Request Code Name
	TXNTypeCode	N	ComplexType	See <a href="#">Transaction Codes</a> table
	:TXNTypeCode	N	Integer(10)	See codes in <a href="#">Transaction Codes</a> table
	:TXNTypeName	N	String(50)	See descriptions in <a href="#">Transaction Codes</a> table
	CardNumber	N	String(19)	CardNumber through which transaction took place. ref: Account/Card[CardNumber]
	PurseNumber	N	Integer(10)	Card's Purse in which transaction took place.
	Amount	N	Numeric(19,4)	Money amount of transaction applied to the Purse
	LocalAmount	N	Numeric(19,4)	Money amount of transaction in local currency
	TxnSign	N	Byte(5)	Negative vs Positive transaction amount value. Example: 0,1,-1
	AcqRefNum	N	String(23)	Reference Number used by acquirer
	RetrievalRefNo	N	String(23)	FIS unique identifier for each transaction
	ClientRefNum	N	String(40)	For value loads, client-specified unique transaction ID
	SourceCode	Y	ComplexType	
	:SourceCode	Y	Integer(10)	Identify FIS application used for transaction, if any
	:Description	Y	String(25)	Description of Source Code
	ReasonCode	Y	Integer(10)	FIS Reason Code
	ResponseCode	N	Integer(10)	FIS Response Code. See <a href="#">RESPONSE CODE MAP</a>
	AuthCode	N	Integer(6)	FIS Authorization Code
	AuthReversed	N	Boolean(1)	1=Auth has been reversed 0=Auth has NOT been reversed
	MCC	N	Integer(10)	Merchant Category Code
	MerchantName	Y	ComplexType	Name of Merchant



	:MerchantName	Y	String(40)	Merchant name sent in the authorization transaction
	:MerchantNumber	N	String(16)	Merchant ID
	WCSLocalInserted	Y	String(25)	Transaction's timestamp in EST
	WCSUTCInserted	Y	String(25)	Transaction's timestamp in UTC
	WCSUTCUpdated	N	String(25)	If the transaction was updated ,this will contain the last update timestamp, in UTC.
<b>Message</b>	MsgType		String(20)	This will be always "RTN".
	Msg		ComplexType	
	:MsgID	Y	String(20)	
	:UniqueMsgID	Y	String(36)	Message's Unique Identifier
	:PANLevel	Y	Boolean(5)	Indicates if message configured at PAN Level. That is, if all Cardholders within Account should be notified regardless of on which Card did the transaction happen Example: "true"
	:AltUniqueMsgID	Future Use	String(36)	This is an alternative Id for the message. UniqueMsgID is a GUID. If you cannot process GUID's, you can instead use AntUniqueMsgID.
	:LanguageId	Future Use	Integer(10)	See Language ID's Table
	:MsgAddress	Future Use	String(500)	Target address for the message. e.g: a mobile phone number or an email address
	:MsgAddressPrefix	Future Use	String(5)	e.g.: Country Phone Code to prefix mobile phone on MsgAddress with
	:MsgAddressCarrier	Future Use	String(50)	e.g.: Mobile Phone's CarrierId
	:ReturnAddress	Future Use	String(500)	From" address to send the message with for the Cardholders to respond to if needed



	:ReturnAddressType	Future Use	String(30)	e.g.: Email address, ShortCode, BigTxt, etc
	:PersonID	Future Use	Integer(10)	PersonId referencing the recipient of the notification.
<b>Event</b>	Client		ComplexType	See <a href="#">Client</a> Group Above
	Account		ComplexType	See <a href="#">Account</a> Group Above
	Transaction		ComplexType	See <a href="#">Transaction</a> Group Above
	Notifications		ComplexType	<a href="#">Notifications</a> triggered by Event
	:Message		ComplexType	See <a href="#">Message</a> Group Above
	Persons		ComplexType	See <a href="#">Person</a> Group Above

*NOTE: XML elements mentioned as “Future Use” is not available in the current XML payload. And it is mentioned for future purpose. So FIS suggesting to consider the elements as mentioned in the payload.XSD file.*

*XML Element will not be available in the payload, if the relevant data is NULL or BLANK in the database.*



### Step 3b: XML Acknowledgement from you to FIS

When you receive the Alert, you will need to acknowledge to FIS that you received the Payload using the response payload format with an HTTPS 200 OK status.

Any response other than 200, will be considered a failure by FIS and a re-transmission of the alert will be sent in accordance with the process noted below.

Please refer to the “Response.xsd” and Response-Success.xml” attachments for the FIS expected format.

**NOTE:** If FIS does not receive an acknowledgement from you due to a connectivity or any other issue, the alert will be considered as fail in our system. If “Reliable” feature in XML alert setup is enabled, we will retry the transmission of the same XML alert on every 15 mins until we receive an acknowledgement from you. This is will be retried for the period of 1 hour (configurable). If we do not receive an acknowledgement within 1 hour, the event is considered expired and we will no longer attempt to send it to you.



## Appendices

### Sample Transaction Flows

	<u>Txn</u> <u>TypeCode</u>	<u>Monetary Impact</u>	<u>TxnSign</u>	<u>Reversed</u>
<u>TxnTypeName</u>				
<b>Balance Inquiry</b>				
Balance Inquiry	2	No Impact	0	0
<b>Purchase Declined</b>				
Purchase Declined	13	No Impact	-1	0
<b>VISA/MasterCard Purchase Authorization and Settlement</b>				
Purchase Approved NotSettled	10	Decrease AuthBal	-1	0
Purchase Approved Settled	11	Decrease SettleBal	-1	0
* Purchase Return	15	Increase AuthBal /SettleBal	1	0
<i>* Return was received in settlement only, not authorization</i>				
<b>VISA/MasterCard Purchase Authorization and Settlement</b>				
Purchase Approved NotSettled	10	Decrease AuthBal	-1	0
Purchase Approved Settled	11	Decrease SettleBal	-1	0
Purchase Return	15	Increase AuthBal	1	0
* Purchase Return	15	Increase SettleBal	1	0
<i>* Return was received in auth and settlement.</i>				
<i>** This might appear as a 'duplicate' with alerts since the txnTypeCode doesn't change however, the first is the auth and the second is the settlement</i>				
<b>VISA/MasterCard Purchase Auth and Settlement with Variance</b>				
Purchase Approved NotSettled	10	Decrease AuthBal	-1	0
Purchase Approved Settled	11	Increase AuthBal Decrease SettleBal	-1	0
<b>VISA/MasterCard Purchase / Reversal</b>				
Purchase Approved NotSettled	10	Decrease AuthBal	-1	0
Purchase Reversed	14	Increase AuthBal	-1	1



	Reversal	89	No \$ impact	0	0
<b>VISA/MasterCard Purchase (PreAuth) / Completion and Settlement</b>					
	Purchase Approved NotSettled	10	Decrease AuthBal	-1	0
	Purchase Reversed	14	Increase AuthBal	-1	1
	Purchase Approved NotSettled	10	Decrease AuthBal	-1	0
	Purchase Approved Settled	11	Decrease SettleBal	-1	0
<b>Settle No-Auth</b>					
	Purchase Approved Settled NoAuth	12	Decrease AuthBal and SettleBal	-1	0
<b>NYCE Purchase (Pre-Auth) / Completion and Settlement</b>					
	Pre Auth	56	Decrease AuthBal	-1	0
	Pre Auth Reversed	57	Increase AuthBal	-1	1
	Purchase Approved NotSettled	10	Decrease AuthBal	-1	0
	Purchase Approved Settled	11	Decrease SettleBal	-1	0
<b>ATM Auth and Settlement</b>					
	ATM Approved NotSettled	20	Decrease AuthBal	-1	0
	ATM Approved Settled	21	Decrease SettleBal	-1	0
<b>Maestro/Interlink Purchase (PreAuth) / Completion and Settlement</b>					
	Pre Auth	56	Decrease AuthBal	-1	0
	Pre Auth Reversed	57	Increase AuthBal	-1	1
	Purchase Approved NotSettled	10	Decrease AuthBal	-1	0
	Purchase Approved Settled	11	Decrease SettleBal	-1	0



## Mapping of Group/Transaction codes to Alert Types

Group		Transaction Type		XML ALERT
Code	Description	Code	Name	
1	Purchase	11	Purchase Approved Settled	Custom
		12	Purchase Approved Settled NoAuth	Custom
		17	Purchase Representment	Custom
		18	Purchase Batch	Custom
		21	ATM Approved Settled	Custom
		22	ATM Approved Settled NoAuth	Custom
		27	ATM Representment	Custom
		32	Purchase Approved Settled Reversed Auth	Custom
		33	ATM Approved Settled Reversed Auth	Custom
		34	OTC Approved Settled Reversed Auth	Custom
		53	PBM Authorization Settled	Custom
		91	OTC Approved Settled	Custom
		92	OTC Approved Settled NoAuth	Custom
		97	OTC Representment	Custom
2	Value Load	1	ValueLoad	Valueload
3	Adjustment	7	Adjustment	Custom
		35	DDA/SVG DEBIT TRANSFER	Custom
4	Decline	13	Purchase Declined	Decline
		23	ATM Declined	Decline
		30	Auth process not completed	Decline
		31	Declined	Decline
		67	Retail Load/Money Transfer Decline	Decline
		88	Back Office Rejects	Decline
		93	OTC Declined	Decline
5	Outstanding Purchase	10	Purchase Approved NotSettled	Approval
		20	ATM Approved NotSettled	Approval
		50	PBM Authorization pending Auth	Approval
		51	PBM Authorization with Auth	Approval
		90	OTC Approved NotSettled	Approval





Group		Transaction Type		XML ALERT
6	Returns	15	Purchase Return	Custom
		19	Purchase Return Batch	Custom
		25	ATM Return	Custom
		78	Optional Issuer Fee Return	Custom
		95	OTC Return	Custom
7	Fees	61	Fee Auth	Custom
		62	Fee WCS	Custom
		63	Banked ATM Txn Fee	Custom
		65	Optional Issuer Fee	Custom
		66	Retail Load Service Fee	Custom
		77	Optional Issuer Fee - Chargeback	Custom
8	Reversal	14	Purchase Reversed	Custom
		24	ATM Reversed	Custom
		52	PBM Authorization Reversed	Custom
		57	Pre Auth Reversed	Custom
		71	Fee Auth Reversed	Custom
		72	Fee WCS Reversed	Custom
		73	Banked ATM Txn Fee Reversed	Custom
		74	Balanced Fee Reversed	Custom
		76	Retail Load Service Fee Reversed	Custom
		89	Reversal	Custom
9	Chargeback	16	Purchase ChargeBack	Custom
		26	ATM ChargeBack	Custom
		96	OTC ChargeBack	Custom
10	DDA Req	5	DDA Requests	Custom
11	Non Monetary Transaction	2	Balance Inquiry	Custom
		9	NonMonetary	Custom
		40	Add Reset uses for Fee Track	Custom
		41	POS Card Activation	Custom
12	Pre Auth	56	Pre Auth	Custom



Group		Transaction Type		XML ALERT
13	Pharmacy Benefit Management	50	PBM Authorization pending Auth	<i>Custom</i>
14	Balanced Fee	64	Balanced Fee	<i>Custom</i>
15	Debit	7	Adjustment	<i>Custom</i>
		10	Purchase Approved NotSettled	<i>Custom</i>
		11	Purchase Approved Settled	<i>Custom</i>
		17	Purchase Representment	<i>Custom</i>
		18	Purchase Batch	<i>Custom</i>
		20	ATM Approved NotSettled	<i>Custom</i>
		21	ATM Approved Settled	<i>Custom</i>
		22	ATM Approved Settled NoAuth	<i>Custom</i>
		27	ATM Representment	<i>Custom</i>
		35	DDA/SVG DEBIT TRANSFER	<i>Custom</i>
		50	PBM Authorization pending Auth	<i>Custom</i>
		51	PBM Authorization with Auth	<i>Custom</i>
		53	PBM Authorization Settled	<i>Custom</i>
		61	Fee Auth	<i>Custom</i>
		62	Fee WCS	<i>Custom</i>
		63	Banked ATM Txn Fee	<i>Custom</i>
		64	Balanced Fee	<i>Custom</i>
		65	Optional Issuer Fee	<i>Custom</i>
		66	Retail Load Service Fee	<i>Custom</i>
		77	Optional Issuer Fee - Chargeback	<i>Custom</i>
		90	OTC Approved NotSettled	<i>Custom</i>
		91	OTC Approved Settled	<i>Custom</i>
		92	OTC Approved Settled NoAuth	<i>Custom</i>
		97	OTC Representment	<i>Custom</i>



## Transaction Codes

Code	Description	Monetary
0	N/A	No
1	Value Load	Yes
2	Balance Inquiry	No
5	DDA Requests	No
6	Card Checks	No
7	Adjustment	Yes
8	Adjustment Purse	Yes
9	Non-Monetary	No
10	Purchase Approved NotSettled	Yes
11	Purchase Approved Settled	Yes
12	Purchase Approved Settled NoAuth	Yes
13	Purchase Declined	Yes
14	Purchase Reversed	Yes
15	Purchase Return	Yes
16	Purchase ChargeBack	Yes
17	Purchase Representment	Yes
18	Purchase Batch	Yes
19	Purchase Return Batch	Yes
20	ATM Approved NotSettled	Yes
21	ATM Approved Settled	Yes
22	ATM Approved Settled NoAuth	Yes
23	ATM Declined	Yes
24	ATM Reversed	Yes
25	ATM Return	Yes
26	ATM ChargeBack	Yes
27	ATM Representment	Yes
30	Auth process not completed	Yes
31	Declined	Yes
32	Purchase Approved Settled Reversed Auth	Yes
33	ATM Approved Settled Reversed Auth	Yes
34	OTC Approved Settled Reversed Auth	Yes
35	DDA/SVG DEBIT TRANSFER	Yes
40	Add Reset uses for Fee Track	No
41	POS Card Activation	No



Code	Description	Monetary
50	PBM Authorization pending Auth	No
51	PBM Authorization with Auth	No
52	PBM Authorization Reversed	No
53	PBM Authorization Settled	No
56	Pre Auth	No
57	Pre Auth Reversed	No
61	Fee Auth	Yes
62	Fee WCS	Yes
63	Banked ATM Txn Fee	Yes
64	Balanced Fee	Yes
65	Optional Issuer Fee	Yes
66	Retail Load Service Fee	Yes
67	Retail Load Decline	Yes
71	Fee Auth Reversed	Yes
72	Fee WCS Reversed	Yes
73	Banked ATM Txn Fee Reversed	Yes
74	Balanced Fee Reversed	Yes
75	Optional Issuer Fee Reversed	Yes
76	Retail Load Service Fee Reversed	Yes
77	Optional Issuer Fee - Chargeback	Yes
78	Optional Issuer Fee Return	Yes
88	Backoffice Rejects	No
89	Reversal	Yes
90	OTC Approved NotSettled	Yes
91	OTC Approved Settled	Yes
92	OTC Approved Settled NoAuth	Yes
93	OTC Declined	Yes
94	OTC Reversed	Yes
95	OTC Return	Yes
96	OTC ChargeBack	Yes
97	OTC Representment	Yes
100	Invisible transactions	No



## Relationship Type Map

Code	Description
0	Self
1	Spouse
2	Child
3	parent
4	Sibling
5	Ex-Spouse
6	Friend
7	Adjuster
8	Buyer
9	3-partyClm
10	Contractor
11	Policyholder
12	Vendor
13	Beneficiary
14	FinContact
15	Uncoupled
16	CareOf
17	Sec Sponsor
18	Companion
19	User
20	Client
21	Purchaser



## Card Status Map

Status	Name
0	DORMANT
1	READY
2	ACTIVE
3	CLOSED
4	LOST
5	REPLACED
6	SUSPENDED
7	EXPIRED
8	SACTIVE
9	REVOKED
11	CCCLOSED
12	MBCLOSED
14	FRAUD
15	PFRAUD
16	LAST STMT
17	CHARGEOFF
18	DECEASED
19	WARNING
20	MUCLOSED
21	VOID
22	NONRENEWAL
23	DESTROYED



## Response Code Map

Response Code	Name	Description
0	OK	Approval
1	REFER	Referral to card issuer
3	INVMERCH	Invalid Merchant
4	PICKUP	Pickup card- other (not lost or stolen)
5	DECL	Decline
6	ERROR	ERROR
7	PICKUSPEC	Pick up card- special condition (not lost or stolen)
10	PARTIAL	Partial Preauth approval
12	INVTXN	Invalid Txn
13	InvalidAmt	Invalid Amount
14	INVALIDCARD	Invalid Card Number
19	REENTER	Re-Enter Transaction
23	CARDUSED	Cancellation declined—card already in use
30	FMT	Format Error- reject
39	NOCREDACCT	No Credit Account
41	PICKUPL	Pickup card- lost
43	PICKUPS	Pickup card- stolen
51	NSF	Insufficient funds
54	EXP	Expired card
55	BADPIN	Incorrect PIN
57	BADTXN	Transaction is not permitted
59	Fraud Decline	Declined Responsecode for Suspect Fraud
61	AUTHLIM	Request exceeds current maximum amount limit
62	REST	Service Restricted
64	AMTLARG	Transaction amount is greater than the original transaction amount
65	AUTHCNT	Request exceeds current periodic transaction count
68	RESPLATE	Response Received late
75	BADPINCT	Excessive PIN attempts
76	CHKVAL	Check value mismatch
78	NOACT	No Account
81	INVPIN	STIP: Invalid PIN Crypto Error
82	BADCVV	Invalid CVV



Response Code	Name	Description
83	VERIFY	Unable to verify
85	BADREQCODE	Bad Request Code
86	VERIFY	Cannot Verify PIN
89	CVVFAIL	Card verification value (CVV) verification failed (nopickup)
91	SYSMAL	System Malfunction
92	COMMMDN	Communications link down
96	SYS	System Malfunction
99	NOPURSE	Account does not have a purse
200	FORCAUTHDUP	Forced Duplicate Authorization
1004	CASHBACKLARG	Cashback greater than preauth
1007	CVV2FAIL	CVV2 Failure
1008	AMTLARG	Amt greater than preauth
3165	P5	P5: CHIP Transaction Pin Mgmt Decline
3166	P6	P6: CHIP Transaction Unsafe Pin Decline
3199	S9	Exp Date Mismatch
319313	SM	Exceeds Purchase Frequency limit





## Country Information

Country Name	Country Code	Visa Code	Phone Code
Afghanistan	4	AF	93
Albania	8	AL	355
Algeria	12	DZ	213
American Samoa	16	AS	1 684
Andorra	20	AD	376
Angola	24	AO	244
Anguilla	660	AI	1 264
Antarctica	10	AQ	672
Antigua-Barbuda	28	AG	1 268
Argentina	32	AR	54
Armenia	51	AM	374
Aruba	533	AW	297
Australia	36	AU	61
Austria	40	AT	43
Azerbaijan	31	AZ	994
Bahamas	44	BS	1 242
Bahrain	48	BH	973
Bangladesh	50	BD	880
Barbados	52	BB	1 246
Belarus	112	BY	375
Belgium	56	BE	32
Belize	84	BZ	501
Benin	204	BJ	229
Bermuda	60	BM	1 441
Bhutan	64	BT	975
Bolivia, Plurinational State of	68	BO	591
Bosnia and Herzegovina	70	BA	387
Botswana	72	BW	267
Bouvet Island	74	BV	No Telephone Service
Brazil	76	BR	55
British Indian Ocean Territory	86	IO	No Telephone Service
British Virgin Islands	92	VG	1 284
Brunei Darussalam	96	BN	673



Country Name	Country Code	Visa Code	Phone Code
Bulgaria	100	BG	359
Burkina Faso	854	BF	226
Burundi	108	BI	257
Cambodia	116	KH	855
Cameroon	120	CM	237
Canada	124	CA	1
Cape Verde Island	132	CV	238
Cayman Islands	136	KY	1 345
Central African Republic	140	CF	236
Chad	148	TD	235
Chile	152	CL	56
China	156	CN	86
Christmas Island	162	CX	61
Cocos (Keeling) Island	166	CC	61
Colombia	170	CO	57
Comoro Islands	174	KM	269
Congo	178	CG	242
Cook Islands	184	CK	682
Costa Rica	188	CR	506
Croatia	191	HR	385
Cuba	192	CU	53
Cyprus	196	CY	357
Czech Republic	203	CZ	420
Democratic Republic of the Congo	180	CD	243
Denmark	208	DK	45
Djibouti	262	DJ	253
Dominica	212	DM	1 767
Dominican Republic	214	DO	1 809
Ecuador	218	EC	593
Egypt	818	EG	20
El Salvador	222	SV	503
Equatorial Guinea	226	GQ	240
Eritrea	232	ER	291
Estonia	233	EE	372
Ethiopia	231	ET	251
Faeroe Islands	234	FO	298
Falkland Islands (Malvinas)	238	FK	500
Fiji	242	FJ	679



Country Name	Country Code	Visa Code	Phone Code
Finland	246	FI	358
France	250	FR	33
France, Metropolitan	249	FX	33
French Guiana	254	GF	594
French Polynesia	258	PF	689
French Southern Territories	260	TF	689
Gabon	266	GA	241
Gambia	270	GM	220
Georgia	981	GE	995
Germany	280	DE	49
Ghana	288	GH	233
Gibraltar	292	GI	350
Greece	300	GR	30
Greenland	304	GL	299
Grenada	308	GD	1 473
Guadeloupe	312	GP	590
Guam	316	GU	1 671
Guatemala	320	GT	502
Guinea	324	GN	224
Guinea-Bissau	624	GW	245
Guyana	328	GY	592
Haiti	332	HT	509
Heard and McDonald Islands	334	HM	No Telephone Service
Honduras	340	HN	504
Hong Kong	344	HK	852
Hungary	348	HU	36
Iceland	352	IS	354
India	356	IN	91
Indonesia	360	ID	62
Iran	364	IR	98
Iraq	368	IQ	964
Ireland	372	IE	353
Israel	376	IL	972
Italy	380	IT	39
Ivory Coast	384	CI	225
Jamaica	388	JM	1 876
Japan	392	JP	81
Jordan	400	JO	962



Country Name	Country Code	Visa Code	Phone Code
Kazakhstan	398	KZ	7
Kenya	404	KE	254
Kiribati	296	KI	686
Korea, Democratic Peoples Republic of	408	KP	850
Korea, Republic of	410	KR	82
Kuwait	414	KW	965
Kyrgyzstan	417	KG	996
Lao	418	LA	856
Latvia	428	LV	371
Lebanon	422	LB	961
Lesotho	426	LS	266
Liberia	430	LR	231
Libyan Arab Jamahiriya	434	LY	218
Lichtenstein	438	LI	423
Lithuania	440	LT	370
Luxembourg	442	LU	352
Macau	446	MO	853
Macedonia	807	MK	389
Madagascar	450	MG	261
Malawi	454	MW	265
Malaysia	458	MY	60
Maldives	462	MV	960
Mali	466	ML	223
Malta	470	MT	356
Marshall Islands	584	MH	692
Martinique	474	MQ	596
Mauritania	478	MR	222
Mauritius	480	MU	230
Mayotte	175	YT	262
Mexico	484	MX	52
Micronesia	583	FM	691
Midway Islands	488	MI	808
Moldova	498	MD	373
Monaco	492	MC	377
Mongolia	496	MN	976
Montenegro	499	ME	382
Montserrat	500	MS	1 664



Country Name	Country Code	Visa Code	Phone Code
Morocco	504	MA	212
Mozambique	508	MZ	258
Myanmar	104	MM	95
Namibia	516	NA	264
Nauru	520	NR	674
Nepal	524	NP	977
Netherlands	528	NL	31
Netherlands, Antilles	530	AN	599
New Caledonia	540	NC	687
New Zealand	554	NZ	64
Nicaragua	558	NI	505
Niger	562	NE	227
Nigeria	566	NG	234
Niue Island	570	NU	683
Norfolk Island	574	NF	672
Northern Marianas Island	580	MP	1 670
Norway	578	NO	47
Oman	512	OM	968
Pakistan	586	PK	92
Palau	585	PW	680
Palestinian Territory, Occupied	275	PS	970
Panama	591	PA	507
Papua New Guinea	598	PG	675
Paraguay	600	PY	595
Peru	604	PE	51
Philippines	608	PH	63
Pitcairn Islands	612	PN	870
Poland	616	PL	48
Portugal	620	PT	351
Puerto Rico	630	PR	1
Qatar	634	QA	974
Republic of Serbia	688	RS	381
Reunion Island	638	RE	262
Romania	642	RO	40
Russian Federation	643	RU	7
Rwanda	646	RW	250
Saint Helena	654	SH	290
Saint Kitts-Nevis	659	KN	1 869



Country Name	Country Code	Visa Code	Phone Code
Saint Lucia	662	LC	1 758
Saint Pierre and Miquelo	666	PM	508
Saint Vincent and the Grenadines	670	VC	1 784
Samoa	882	WS	685
San Marino	674	SM	378
Sao Tome and Principe	678	ST	239
Saudi Arabia	682	SA	966
Senegal	686	SN	221
Serbia and Montenegro	891	CS	381
Seychelles	690	SC	248
Sierra Leone	694	SL	232
Singapore	702	SG	65
Slovakia	703	SK	421
Slovenia	705	SI	386
Solomon Islands	90	SB	677
Somalia	706	SO	252
South Africa	710	ZA	27
South Georgia and South Sandwich Islands	239	GS	No Telephone Service
Spain	724	ES	34
Sri Lanka	144	LK	94
Sudan	736	SD	249
Suriname	740	SR	597
Svalbard and Jan Mayen Islands	744	SJ	47
Swaziland	748	SZ	268
Sweden	752	SE	46
Switzerland	756	CH	41
Syrian Arab Republic	760	SY	963
Taiwan	158	TW	886
Tajikistan	762	TJ	992
Tanzania	834	TZ	255
Thailand	764	TH	66
Timor Leste	626	TL	670
Togo	768	TG	228
Tokelau Island	772	TK	690
Tonga	776	TO	676
Trinidad and Tobago	780	TT	1 868
Tunisia	788	TN	216



Country Name	Country Code	Visa Code	Phone Code
Turkey	792	TR	90
Turkmenistan	795	TM	993
Turks and Caicos Islands	796	TC	1 649
Tuvalu	798	TV	688
Uganda	800	UG	256
Ukraine	980	UA	380
UN Interim Admin Mission in Kosovo (UNMIK)	900	QZ	No Telephone Service
United Arab Emirates	784	AE	971
United Kingdom	826	GB	44
United States	840	US	1
United States Minor Outlying Islands	581	UM	No Telephone Service
United States Virgin Islands	850	VI	1 340
Uruguay	858	UY	598
Uzbekistan	860	UZ	998
Vanuatu	548	VU	678
Vatican City	336	VA	39
Venezuela, Bolivarian Republic of	862	VE	58
Vietnam	704	VN	84
Wake Island	872	WK	808
Wallis and Futuna Island	876	WF	681
Western Sahara	732	EH	212
Yemen	887	YE	967
Zambia	894	ZM	260
Zimbabwe	716	ZW	263



## Currency Codes

CURRENCY CODE-ALPHA	CURRENCY CODE-NUMERIC	CURRENCY NAME	COUNTRY/USING AREAS
AED	784	<a href="#">United Arab Emirates dirham</a>	<a href="#">United Arab Emirates</a>
AFN	971	<a href="#">Afghan afghani</a>	<a href="#">Afghanistan</a>
ALL	8	<a href="#">Albanian lek</a>	<a href="#">Albania</a>
AMD	51	<a href="#">Armenian dram</a>	<a href="#">Armenia</a>
ANG	532	<a href="#">Netherlands Antillean guilder</a>	Caribbean Netherlands, Curaçao, Sint Maarten
AOA	973	<a href="#">Angolan kwanza</a>	<a href="#">Angola</a>
ARS	32	<a href="#">Argentine peso</a>	<a href="#">Argentina</a>
AUD	36	<a href="#">Australian dollar</a>	Australia, Australian Antarctic Territory, Christmas Island, Cocos (Keeling) Islands, Heard and McDonald Islands, Kiribati, Nauru, Norfolk Island, Tuvalu
AWG	533	<a href="#">Aruban florin</a>	<a href="#">Aruba</a>
AZN	944	<a href="#">Azerbaijani manat</a>	<a href="#">Azerbaijan</a>
BAM	977	<a href="#">Bosnia and Herzegovina convertible mark</a>	<a href="#">Bosnia and Herzegovina</a>
BBD	52	<a href="#">Barbados dollar</a>	<a href="#">Barbados</a>
BDT	50	<a href="#">Bangladeshi taka</a>	<a href="#">Bangladesh</a>
BGN	975	<a href="#">Bulgarian lev</a>	<a href="#">Bulgaria</a>
BHD	48	<a href="#">Bahraini dinar</a>	<a href="#">Bahrain</a>
BIF	108	<a href="#">Burundian franc</a>	<a href="#">Burundi</a>
BMD	60	<a href="#">Bermudian dollar (customarily known as Bermuda dollar)</a>	<a href="#">Bermuda</a>
BND	96	<a href="#">Brunei dollar</a>	Brunei, Singapore
BOB	68	<a href="#">Boliviano</a>	<a href="#">Bolivia</a>
BOV	984	Bolivian Mvdol (funds code)	<a href="#">Bolivia</a>
BRL	986	<a href="#">Brazilian real</a>	<a href="#">Brazil</a>
BSD	44	<a href="#">Bahamian dollar</a>	<a href="#">Bahamas</a>
BTN	64	<a href="#">Bhutanese ngultrum</a>	<a href="#">Bhutan</a>
BWP	72	<a href="#">Botswana pula</a>	<a href="#">Botswana</a>
BYR	974	<a href="#">Belarusian ruble</a>	<a href="#">Belarus</a>
BZD	84	<a href="#">Belize dollar</a>	<a href="#">Belize</a>
CAD	124	<a href="#">Canadian dollar</a>	<a href="#">Canada</a>
CDF	976	<a href="#">Congolese franc</a>	<a href="#">Democratic Republic of Congo</a>





CURRENCY CODE-ALPHA	CURRENCY CODE-NUMERIC	CURRENCY NAME	COUNTRY/USING AREAS
CHE	947	WIR Bank (complementary currency)	<a href="#">Switzerland</a>
CHF	756	<a href="#">Swiss franc</a>	Switzerland, Liechtenstein
CHW	948	WIR Bank (complementary currency)	<a href="#">Switzerland</a>
CLF	990	<a href="#">Unidad de Fomento (funds code)</a>	<a href="#">Chile</a>
CLP	152	<a href="#">Chilean peso</a>	<a href="#">Chile</a>
CNY	156	<a href="#">Chinese yuan</a>	<a href="#">China (Mainland)</a>
COP	170	<a href="#">Colombian peso</a>	<a href="#">Colombia</a>
COU	970	<a href="#">Unidad de Valor Real</a>	<a href="#">Colombia</a>
CRC	188	<a href="#">Costa Rican colon</a>	<a href="#">Costa Rica</a>
CUC	931	<a href="#">Cuban convertible peso</a>	<a href="#">Cuba</a>
CUP	192	<a href="#">Cuban peso</a>	<a href="#">Cuba</a>
CVE	132	<a href="#">Cape Verde escudo</a>	<a href="#">Cape Verde</a>
CZK	203	<a href="#">Czech koruna</a>	<a href="#">Czech Republic</a>
DJF	262	<a href="#">Djiboutian franc</a>	<a href="#">Djibouti</a>
DKK	208	<a href="#">Danish krone</a>	Denmark, Faroe Islands, Greenland
DOP	214	<a href="#">Dominican peso</a>	<a href="#">Dominican Republic</a>
DZD	12	<a href="#">Algerian dinar</a>	<a href="#">Algeria</a>
EEK	233	<a href="#">Estonian kroon</a>	<a href="#">Estonia</a>
EGP	818	<a href="#">Egyptian pound</a>	<a href="#">Egypt</a>
ERN	232	<a href="#">Eritrean nakfa</a>	<a href="#">Eritrea</a>
ETB	230	<a href="#">Ethiopian birr</a>	<a href="#">Ethiopia</a>
EUR	978	<a href="#">Euro</a>	16 European Union countries, Andorra, Kosovo, Monaco, Montenegro, San Marino, Vatican City; <i>see eurozone</i>
FJD	242	<a href="#">Fiji dollar</a>	<a href="#">Fiji</a>
FKP	238	<a href="#">Falkland Islands pound</a>	<a href="#">Falkland Islands</a>
GBP	826	<a href="#">Pound sterling</a>	United Kingdom, Crown Dependencies (the Isle of Man and the Channel Islands), certain British Overseas Territories (South Georgia and the South Sandwich Islands, British Antarctic Territory and British Indian Ocean Territory)
GEL	981	<a href="#">Georgian lari</a>	<a href="#">Georgia</a>
GHS	936	<a href="#">Ghanaian cedi</a>	<a href="#">Ghana</a>
GIP	292	<a href="#">Gibraltar pound</a>	<a href="#">Gibraltar</a>



CURRENCY CODE-ALPHA	CURRENCY CODE-NUMERIC	CURRENCY NAME	COUNTRY/USING AREAS
GMD	270	<a href="#">Gambian dalasi</a>	<a href="#">Gambia</a>
GNF	324	<a href="#">Guinean franc</a>	<a href="#">Guinea</a>
GTQ	320	<a href="#">Guatemalan quetzal</a>	<a href="#">Guatemala</a>
GYD	328	<a href="#">Guyanese dollar</a>	<a href="#">Guyana</a>
HKD	344	<a href="#">Hong Kong dollar</a>	Hong Kong Special Administrative Region, Macau Special Administrative Region
HNL	340	<a href="#">Honduran lempira</a>	<a href="#">Honduras</a>
HRK	191	<a href="#">Croatian kuna</a>	<a href="#">Croatia</a>
HTG	332	<a href="#">Haitian gourde</a>	<a href="#">Haiti</a>
HUF	348	<a href="#">Hungarian forint</a>	<a href="#">Hungary</a>
IDR	360	<a href="#">Indonesian rupiah</a>	<a href="#">Indonesia</a>
ILS	376	<a href="#">Israeli new sheqel</a>	<a href="#">Israel</a>
INR	356	<a href="#">Indian rupee</a>	Bhutan, India
IQD	368	<a href="#">Iraqi dinar</a>	<a href="#">Iraq</a>
IRR	364	<a href="#">Iranian rial</a>	<a href="#">Iran</a>
ISK	352	<a href="#">Icelandic króna</a>	<a href="#">Iceland</a>
JMD	388	<a href="#">Jamaican dollar</a>	<a href="#">Jamaica</a>
JOD	400	<a href="#">Jordanian dinar</a>	<a href="#">Jordan</a>
JPY	392	<a href="#">Japanese yen</a>	<a href="#">Japan</a>
KES	404	<a href="#">Kenyan shilling</a>	<a href="#">Kenya</a>
KGS	417	<a href="#">Kyrgyzstani som</a>	<a href="#">Kyrgyzstan</a>
KHR	116	<a href="#">Cambodian riel</a>	<a href="#">Cambodia</a>
KMF	174	<a href="#">Comoro franc</a>	<a href="#">Comoros</a>
KPW	408	<a href="#">North Korean won</a>	<a href="#">North Korea</a>
KRW	410	<a href="#">South Korean won</a>	<a href="#">South Korea</a>
KWD	414	<a href="#">Kuwaiti dinar</a>	<a href="#">Kuwait</a>
KYD	136	<a href="#">Cayman Islands dollar</a>	<a href="#">Cayman Islands</a>
KZT	398	<a href="#">Kazakhstani tenge</a>	<a href="#">Kazakhstan</a>
LAK	418	<a href="#">Lao kip</a>	<a href="#">Laos</a>
LBP	422	<a href="#">Lebanese pound</a>	<a href="#">Lebanon</a>
LKR	144	<a href="#">Sri Lanka rupee</a>	<a href="#">Sri Lanka</a>
LRD	430	<a href="#">Liberian dollar</a>	<a href="#">Liberia</a>
LSL	426	<a href="#">Lesotho loti</a>	<a href="#">Lesotho</a>
LTL	440	<a href="#">Lithuanian litas</a>	<a href="#">Lithuania</a>
LVL	428	<a href="#">Latvian lats</a>	<a href="#">Latvia</a>
LYD	434	<a href="#">Libyan dinar</a>	<a href="#">Libya</a>
MAD	504	<a href="#">Moroccan dirham</a>	Morocco, Western Sahara



CURRENCY CODE-ALPHA	CURRENCY CODE-NUMERIC	CURRENCY NAME	COUNTRY/USING AREAS
MDL	498	<a href="#">Moldovan leu</a>	Moldova (except Transnistria)
MGA	969	<a href="#">Malagasy ariary</a>	<a href="#">Madagascar</a>
MKD	807	<a href="#">Macedonian denar</a>	<a href="#">Republic of Macedonia</a>
MMK	104	<a href="#">Myanma kyat</a>	<a href="#">Myanmar</a>
MNT	496	<a href="#">Mongolian tugrik</a>	<a href="#">Mongolia</a>
MOP	446	<a href="#">Macanese pataca</a>	Macau Special Administrative Region
MRO	478	<a href="#">Mauritanian ouguiya</a>	<a href="#">Mauritania</a>
MUR	480	<a href="#">Mauritian rupee</a>	<a href="#">Mauritius</a>
MVR	462	<a href="#">Maldivian rufiyaa</a>	<a href="#">Maldives</a>
MWK	454	<a href="#">Malawian kwacha</a>	<a href="#">Malawi</a>
MXN	484	<a href="#">Mexican peso</a>	<a href="#">Mexico</a>
MXV	979	<a href="#">Mexican Unidad de Inversion (UDI) (funds code)</a>	<a href="#">Mexico</a>
MYR	458	<a href="#">Malaysian ringgit</a>	<a href="#">Malaysia</a>
MZN	943	<a href="#">Mozambican metical</a>	<a href="#">Mozambique</a>
NAD	516	<a href="#">Namibian dollar</a>	<a href="#">Namibia</a>
NGN	566	<a href="#">Nigerian naira</a>	<a href="#">Nigeria</a>
NIO	558	<a href="#">Cordoba oro</a>	<a href="#">Nicaragua</a>
NOK	578	<a href="#">Norwegian krone</a>	Norway, Bouvet Island, Queen Maud Land, Peter I Island
NPR	524	<a href="#">Nepalese rupee</a>	<a href="#">Nepal</a>
NZD	554	<a href="#">New Zealand dollar</a>	Cook Islands, New Zealand, Niue, Pitcairn, Tokelau
OMR	512	<a href="#">Omani rial</a>	<a href="#">Oman</a>
PAB	590	<a href="#">Panamanian balboa</a>	<a href="#">Panama</a>
PEN	604	<a href="#">Peruvian nuevo sol</a>	<a href="#">Peru</a>
PGK	598	<a href="#">Papua New Guinean kina</a>	<a href="#">Papua New Guinea</a>
PHP	608	<a href="#">Philippine peso</a>	<a href="#">Philippines</a>
PKR	586	<a href="#">Pakistani rupee</a>	<a href="#">Pakistan</a>
PLN	985	<a href="#">Polish zloty</a>	<a href="#">Poland</a>
PYG	600	<a href="#">Paraguayan guaraní</a>	<a href="#">Paraguay</a>
QAR	634	<a href="#">Qatari rial</a>	<a href="#">Qatar</a>
RON	946	<a href="#">Romanian new leu</a>	<a href="#">Romania</a>
RSD	941	<a href="#">Serbian dinar</a>	<a href="#">Serbia</a>
RUB	643	<a href="#">Russian rouble</a>	Russia, Abkhazia, South Ossetia
RWF	646	<a href="#">Rwandan franc</a>	<a href="#">Rwanda</a>
SAR	682	<a href="#">Saudi riyal</a>	<a href="#">Saudi Arabia</a>
SBD	90	<a href="#">Solomon Islands dollar</a>	<a href="#">Solomon Islands</a>



CURRENCY CODE-ALPHA	CURRENCY CODE-NUMERIC	CURRENCY NAME	COUNTRY/USING AREAS
SCR	690	<a href="#">Seychelles rupee</a>	<a href="#">Seychelles</a>
SDG	938	<a href="#">Sudanese pound</a>	<a href="#">Sudan</a>
SEK	752	<a href="#">Swedish krona/kronor</a>	<a href="#">Sweden</a>
SGD	702	<a href="#">Singapore dollar</a>	Singapore, Brunei
SHP	654	<a href="#">Saint Helena pound</a>	<a href="#">Saint Helena</a>
SLL	694	<a href="#">Sierra Leonean leone</a>	<a href="#">Sierra Leone</a>
SOS	706	<a href="#">Somali shilling</a>	Somalia (except Somaliland)
SRD	968	<a href="#">Surinamese dollar</a>	<a href="#">Suriname</a>
STD	678	<a href="#">São Tomé and Príncipe dobra</a>	<a href="#">São Tomé and Príncipe</a>
SYR	760	<a href="#">Syrian pound</a>	<a href="#">Syria</a>
SZL	748	<a href="#">Lilangeni</a>	<a href="#">Swaziland</a>
THB	764	<a href="#">Thai baht</a>	<a href="#">Thailand</a>
TJS	972	<a href="#">Tajikistani somoni</a>	<a href="#">Tajikistan</a>
TMT	934	<a href="#">Turkmenistani manat</a>	<a href="#">Turkmenistan</a>
TND	788	<a href="#">Tunisian dinar</a>	<a href="#">Tunisia</a>
TOP	776	<a href="#">Tongan pa'anga</a>	<a href="#">Tonga</a>
TRY	949	<a href="#">Turkish lira</a>	Turkey, Northern Cyprus
TTD	780	<a href="#">Trinidad and Tobago dollar</a>	<a href="#">Trinidad and Tobago</a>
TWD	901	<a href="#">New Taiwan dollar</a>	Taiwan and other islands that are under the effective control of the Republic of China (ROC)
TZS	834	<a href="#">Tanzanian shilling</a>	<a href="#">Tanzania</a>
UAH	980	<a href="#">Ukrainian hryvnia</a>	<a href="#">Ukraine</a>
UGX	800	<a href="#">Ugandan shilling</a>	<a href="#">Uganda</a>
USD	840	<a href="#">United States dollar</a>	American Samoa, British Indian Ocean Territory, Ecuador, El Salvador, Guam, Haiti, Marshall Islands, Micronesia, Northern Mariana Islands, Palau, Panama, Puerto Rico, Timor-Leste, Turks and Caicos Islands, United States, Virgin Islands, Bermuda (as well as Bermudian Dollar)
USN	997	United States dollar (next day) (funds code)	<a href="#">United States</a>
USS	998	<a href="#">United States dollar (same day) (funds code) (one source[who?] claims it is no longer used, but it is still on the ISO 4217-MA list)</a>	<a href="#">United States</a>
UYU	858	<a href="#">Uruguayan peso</a>	<a href="#">Uruguay</a>
UZS	860	<a href="#">Uzbekistan som</a>	<a href="#">Uzbekistan</a>



CURRENCY CODE-ALPHA	CURRENCY CODE-NUMERIC	CURRENCY NAME	COUNTRY/USING AREAS
VEF	937	<a href="#">Venezuelan bolívar fuerte</a>	<a href="#">Venezuela</a>
VND	704	<a href="#">Vietnamese đồng</a>	<a href="#">Vietnam</a>
VUV	548	<a href="#">Vanuatu vatu</a>	<a href="#">Vanuatu</a>
WST	882	<a href="#">Samoan tala</a>	<a href="#">Samoa</a>
XAF	950	<a href="#">CFA franc BEAC</a>	Cameroon, Central African Republic, Republic of the Congo, Chad, Equatorial Guinea, Gabon
XAG	961	Silver (one troy ounce)	
XAU	959	Gold (one troy ounce)	
XBA	955	<a href="#">European Composite Unit (EURCO) (bond market unit)</a>	
XBB	956	<a href="#">European Monetary Unit (E.M.U.-6) (bond market unit)</a>	
XBC	957	<a href="#">European Unit of Account 9 (E.U.A.-9) (bond market unit)</a>	
XBD	958	<a href="#">European Unit of Account 17 (E.U.A.-17) (bond market unit)</a>	
XCD	951	<a href="#">East Caribbean dollar</a>	Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines
XDR	960	<a href="#">Special Drawing Rights</a>	<a href="#">International Monetary Fund</a>
XFU	Nil	<a href="#">UIC franc (special settlement currency)</a>	<a href="#">International Union of Railways</a>
XOF	952	<a href="#">CFA Franc BCEAO</a>	Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, Togo
XPB	964	Palladium (one troy ounce)	
XPF	953	<a href="#">CFP franc</a>	French Polynesia, New Caledonia, Wallis and Futuna



## Language IDs

Language ID	Language Name
1	English
2	Spanish
3	French
4	Abkhazian
5	Afar
6	Afrikaans
7	Albanian
8	Amharic
9	Arabic
10	Armenian
11	Assamese
12	Aymara
13	Azerbaijani
14	Bashkir
15	Basque
16	Bengali
17	Bihari
18	Bislama
19	Breton
20	Bulgarian
21	Burmese
22	Catalan
23	Chinese
24	Corsican
25	Croatian
26	Czech
27	Danish
28	Dutch
29	Dzongkha
30	Esperanto
31	Estonian
32	Faroese
33	Fijian
34	Finnish



Language ID	Language Name
35	Frisian
36	Gallegan
37	Georgian
38	German
39	Greek, Modern (1453-)
40	Greenlandic
41	Guarani
42	Gujarati
43	Hausa
44	Hebrew
45	Hindi
46	Hungarian
47	Icelandic
48	Indonesian
49	Interlingua (International Auxiliary language Association)
50	Interlingue
51	Inuktitut
52	Inupiak
53	Irish
54	Italian
55	Japanese
56	Javanese
57	Kannada
58	Kashmiri
59	Kazakh
60	Khmer
61	Kinyarwanda
62	Kirghiz
63	Korean
64	Kurdish
65	Langue d'Oc (post 1500)
66	Lao
67	Latin
68	Latvian
69	Lingala
70	Lithuanian



Language ID	Language Name
71	Macedonian
72	Malagasy
73	Malay
74	Maltese
75	Maori
76	Marathi
77	Moldavian
78	Mongolian
79	Nauru
80	Nepali
81	Norwegian
82	Oriya
83	Oromo
84	Panjabi
85	Persian
86	Polish
87	Pushto
88	Quechua
89	Rhaeto-Romance
90	Romanian
91	Rundi
92	Russian
93	Samoan
94	Sango
95	Sanskrit
96	Serbian
97	Serbo-Croatian
98	Shona
99	Sindhi
100	Singhalese
101	Siswant
102	Slovak
103	Slovenian
104	Somali
105	Sotho, Southern
106	Sudanese
107	Swahili





Language ID	Language Name
108	Swedish
109	Tagalog
110	Tajik
111	Tamil
112	Tatar
113	Telugu
114	Thai
115	Tibetan
116	Tigrinya
117	Tonga
118	Tsonga
119	Tswana
120	Turkish
121	Turkmen
122	Twi
123	Uighur
124	Ukrainian
125	Urdu
126	Uzbek
127	Vietnamese
128	Volapnk
129	Welsh
130	Wolof
131	Xhosa
132	Yiddish
133	Yoruba
134	Zhuang
135	Zulu
136	Pig Latin
137	Portuguese
140	French Canadian