Email Validation API Developer's Guide

Document Version 1.1.0 –December 18th, 2024

API Version 1.1

PacificEast

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PacificEast Development

Overview

PacificEast web services provide access to the best data in the industry. With access to multiple vendors and data sources, PacificEast strives to provide the most relevant and up-to-date responses to your queries.   PacificEast is committed to providing the best solution to your data needs by combining our sophisticated algorithms with a wide array of data sources.

Most PacificEast web services are accessible using either the Simple Object Access Protocol (SOAP) version 1.1 or Representational State Transfer (REST).

This document describes accessing these services using both SOAP and REST. Further information on SOAP can be found on the World Wide Web Consortium's web site at www.w3.org. More information on REST can be found in various places including Wikipedia at http://en.wikipedia.org/wiki/Representational_state_transfer.

Architecture

PacificEast web services are hosted in several data centers throughout North America and are configured to provide rapid failover in the event of issues. PacificEast uses a combination of load balancing, failover and external monitoring to maintain high service uptimes.

Security

PacificEast web services use Transport Layer Security (TLS) for all communication between client applications and the PacificEast servers. Each request to an PacificEast web service must include the account key that was assigned by PacificEast.

Production vs. Development

All development work must be done on PacificEast's client development servers. Once development has been completed, clients may request that their account on the production servers be enabled by contacting their account manager or by emailing devsupport@pacificeast.com.

Access to the development servers is granted solely for the purpose of testing code integration with the PacificEast web services. The development servers are not to be used for stress or load testing. Queries to the development servers should not exceed 100 queries per day or 1,000 queries total. Queries exceeding these totals may be billable. If additional queries are needed, please contact your account manager or email devsupport@pacificeast.com. Excessive use of the development servers will result in access being revoked. Access to the development servers will be disabled after the production account has been enabled.

The development servers have access to the same data sources as the production servers. However, the production servers are quicker and have redundancy and load-balancing features implemented. While we do our best to ensure that the development servers are available at all times, there may be times when a web service on a development server is unavailable because of maintenance. These periods will usually

be very brief and we will do our best to perform maintenance outside of regular business hours. However, please note that there will not be maintenance notifications issued for our development servers. If you have a question about the status of a particular service on a development server, please email devsupport@pacificeast.com.

Production servers should be available at all times. Using multiple data centers and load-balancing, we strive to provide uninterrupted service to our clients. However, there may be times when maintenance, either our own or at our downstream providers, will affect our services. Whenever possible, we will – provide maintenance notifications at least a week before the scheduled maintenance.

Support

During development, support for PacificEast web services can be obtained by emailing our development support group at devsupport@pacificeast.com. Please be sure to include details about the nature of the problem and your contact information.

Support for production systems can be obtained by emailing devsupport@pacificeast.com. For emergency support, please call our 1-800 number.

Errors

Errors in SOAP-based queries will be indicated using SOAP faults. See the SOAP Fault specification at http://www.w3.org/TR/2000/NOTE-SOAP-20000508/#_Toc478383507 for more information. Information about the error is returned in the fault as an IdiciaError object (see *IDICIAError* below).

Authentication

Service authentication is performed using a custom header and the account key assigned by PacificEast. Each request must include a header with the name *X-PacificEast-Acct* and the account key as the value.

For example, if your account key is "abc123" then the header included with each request should look like:

> X-PacificEast-Acct : abc123

Requests not containing the *X-PacificEast-Acct* header will be rejected with a 403 (Unauthorized) response.

Transaction Requests

The service Web Service Description Language (WSDL) is available from our web site. Please contact your account manager or email devsupport@pacificeast.com.

Validate

The Validate transaction validates the input email address and provides information about the deliverability of emails sent to the address. Please see the tables below for more information.

Table 1 – Validate Parameters

Property	Description	Type	Required
queryParameters	A QueryParameters object (see below).	QueryParameters	Y
emailParameters	An emailParameters object (see below)	EmailParameters	Y

The QueryParameters object encapsulates the query parameters that are common to all PacificEast web service requests.

Table 2 – QueryParameters

Parameter	Description	Type	Required
accountKey	The account key assigned by PacificEast.	Text	Y
consentCode	The consent code indicating what consent, if any, was given for retrieving the requested data.	Text	N
jobCode	An identifier (twenty characters maximum) that can be included for reporting purposes. Queries with the same job code will be grouped together on the invoice.	Text	N
purpose	Indicates what the retrieved data will be used for. Valid values are: **LE** law enforcement **FR** commercial fraud and risk prevention	Text	Y

	AD administrative		
referenceID	An identifier that can be used by the client application to uniquely identify the transaction. This text will be returned in the response.	Text	N

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Table 3 –EmailParameters

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Property	Description	Type	Required
emailAddress	The email address to be validated.	Text	Y
queryType	For future use.	Integer	N

Transaction Responses

IDICIAError

The IDICIAError object is returned when a transaction fails and contains information on why the transaction failed.

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Table 4 – IDICIAError

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Field	Description	DataType
status	Indicates if the query was successfully executed or not. The status should have a value of -1 if an IDICIAError object is received	Integer
errorInfo	An ErrorInfo object (see below)	ErrorInfo

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Table 5 – ErrorInfo

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Field	Description	DataType
code	The error code describing the type of error that occurred. See Appendix A – Error Codes for a list of possible error codes.	Integer
description	A text description of the error.	Text
internalCode	For PacificEast internal use. You may be asked to provide this value when working with PacificEast support to resolve an issue.	Text

EmailValidationResponse

A successful transaction is returned in an EmailValidationResponse object.

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Table 6 –EmailValidationResponse

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Field	Description	DataType

status	Indicates if the query was successfully executed or not. -1 An error occurred executing the query. 0 Query executed successfully.	Integer
referenceID	The referenceID that was included in the input.	Text
domainType	The domain type of the email address. Values are: 0 Unknown 1 Paid 2 Organization 3 Business 4 Government 5 Educational 6 Wireless 7 Free 8 Disposable	Integer
validationStatus	The status of the email address. Values are: 0 Unknown 1 Valid 5 Syntax OK 30 Invalid syntax 40 Domain problem 50 Address problem 60 Address alert 70 Mailbox invalid 90 Opt out	Integer
deliverability	How deliverable an email sent to the address is. Values are: 0 Unknown 10 Invalid 20 Undeliverable 30 Risky 40 Valid 45 Not verified 50 Deliverable	Integer
correctionCode	What action was taken to correct the email address. Values are: -1 Undeliverable – no action taken. 0 OK – the email address was correct. 1 The email address was corrected.	Integer
validatedEmail	The validated email address. If no correction was needed, this will be the same as the input email address.	Text

Samples

The following samples show various transactions using the service. In each case, the XML request and response are shown.

Note: the data in the responses is fictional and is just a representation of the data that would be returned by the service.

REST samples: only the last portion of the resource and the parameters are shown. The JSON response has been formatted for easier readability.

SOAP samples: for the sake of brevity and readability, some of the SOAP envelope and namespace information has been removed. Only the relevant XML has been left.

Note: The ampersand ('@') in the email address is a reserved character in URLs and must be encoded as '%40' when using REST.

Validate Samples

Sample #1 – Invalid Authentication

This request shows the IdiciaError response that is returned when the authentication header is missing or invalid.

REST Request
```
…/EmailValidation.svc/jsmith%40gmail.com?purpose=FR
```

REST Response
```
{
  "status": -1,
  "errorInfo":
      {
    "code": 1,
    "description": "Unauthorized access.",
    "internalCode": 0
      }
}
```

SOAP Request
```
<EmailValidationQuery>
    <queryParameters>
        <purpose>FR</purpose>
        <referenceID>Test query</referenceID>
    <queryParameters>
    <emailParameters>
        <emailAddress>jsmith@mail.com</emailAddress>
    </emailParameters>
<EmailValidationQuery>
```

SOAP Response
```
<faultcode>Forbidden</faultcode>
<faultstring>Forbidden</faultstring>
<detail>
    <IdiciaError>
        <status>-1</status>
        <errorInfo>
            <code>1</code>
            <description>Unauthorized access.</description>
            <internalCode>0</internalCode>
        </errorInfo>
    </IdiciaError>
</detail>
```

Sample #2 – Basic Query

This request shows a basic query for an email address:

REST Request

…/EmailValidation.svc/smith%40gmail.com?referenceID=Test%20query%202&purpose=FR

REST Response

```
{
     "correctionCode":0,
     "deliverability":50,
     "domainType":7,
     "validatedEmail":"jsmith@gmail.com",
     "validationStatus":1,
     "status":0,
     "referenceID":"Test query 2"
}
```

SOAP Request

```
<EmailValidationQuery>
   <queryParameters>
      <purpose>FR</purpose>
      <referenceID>Test query 2</referenceID>
   </queryParameters>
   <emailParameters>
      <emailAddress>jsmith@gmail.com</emailAddress>
   </emailParameters>
</EmailValidationQuery>
```

SOAP Response

```
<Response>
   <correctionCode>0</correctionCode>
   <deliverability>50</deliverability>
   <domainType>7</domainType>
   <validatedEmail>jsmith@gmail.com</validatedEmail>
   <validationStatus>1</validationStatus>
   <status>0</status>
   <referenceID>Test query 2</referenceID>
</Response>
```

Appendix A – Error Codes

The following are possible error codes that may be returned in the ErrorCode field of the ErrorInfo object.

Table 7 – Error Codes

Error Code	Description
0	Unknown error.
1	Unauthorized access.
2	Invalid query. The *description* field may provide more information.
3	Query execution error. Retrying the query may provide a successful result.
4	Unauthorized data source. A data source to which the account does not have access has been requested.
5	Unauthorized permissible purpose. The use of the requested permissible purpose has not been granted to the account.
6	Unauthorized query type. The type of query requested is not permitted for the account.

Appendix B – Document History

API Version	Doc. Version	Date	Description
1.0	1.0.0	2020/5/26	Initial release
1.0	1.0.1	2021/9/8	Branding update
1.1	1.1.0	2024/12/18	Authentication information update