



Developer's Guide

FlexiQuery™ API

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World Headquarters
101A 30701 Simpson Rd
Abbotsford, BC V2T 6C7

p 800.665.8400

Mailing Address
PO Box 439
Sumas, WA 98295-0439

f 360.988.0940

US Division
4900 SW Griffith Dr, Ste 251
Beaverton, OR

w pacificeast.com

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PacificEast Integrated Development

For general information on developing with PacificEast's integrated services, please refer to the latest version of the *Integrated 411 Developer's Guide*. Contact support@pacificeast.com or your sales account manager to request a copy.

About PacificEast's FlexiQuery Service

The FlexiQuery™ service combines multiple query types into a single transaction with a consistent response object to simplify access to the various data sources available to PacificEast customers. FlexiQuery provides the following query types:

- Forward phone append – find contacts listed in Directory Assistance (DA) databases by searching on name and address.
- Reverse phone append – find contacts listed in DA and non-DA sources based on a phone number.
- SSN append – search for name, addresses and phone numbers of individuals using an SSN and a last name.
- SSO append – search for name, addresses and phone numbers of individuals using an SSN. No last name is required but it will be used to filter the results if it is included in the query. This query type requires additional permissions.
- Address standardization and verification – standardize an input address to US Postal Service standards and determine if an address is mailable.
- Reverse address search – search DA databases by address.
- Telephone verification – verify telephone number and name/address information using telephone company records.
- Telephone line identification – determine the phone service type (landline, wireless, etc.), carrier, city/state and whether the number has been ported for an input phone number.
- MedBill – an SSN query that only requires the last four digits of the SSN and a full name and address. The full SSN will be returned if a match is found. This query type requires additional permissions.
- Auto – based on the input query data, the FlexiQuery service will automatically identify which of the above query types to use.

Function Reference

GetResponse

Input Parameters

Table 1 - GetResponse Parameters

Parameter	Description	Required	Default Value
accountID	The account ID assigned by PacificEast	Y	
referenceID	An identifier that can be used by the client application to uniquely identify the transaction. This text will be returned in the response.	N	
subscriber	An identifier used to identify individual clients. Used for reporting and usage tracking.	Y	
purpose	Indicates what the retrieved data will be used for. Valid values are: <ul style="list-style-type: none">• LE – law enforcement• FR – commercial fraud and risk prevention• AD – administrative (demo and testing)	Y	
queryType	The query type to be executed. Valid values are: <ul style="list-style-type: none">• Auto – query type to be executed will be decided based on input parameters.• FPA – forward phone append. Listings appended	Y	

	<p>based on name and address parameters (<i>firstName, lastName, address, city, state and postal</i>).</p> <ul style="list-style-type: none"> • RPA – reverse phone append. Listings appended based on input phone number parameter. • SSN – SSN append. Listings appended based on input SSN and last name parameters. • SSO – SSN append. Listings appended based on input SSN. Last name is not required but will be used to filter results if it is included. • ADV – address standardization and verification. Standardized USPS address returned based on input address parameters (<i>address, city, state and postal</i>). • RAD – reverse address search. Listings appended based on address parameters (<i>address, city, state and postal</i>). • TEL – telephone verification. Phone number and name/address information verified. • LIA – telephone line identification. • MED – SSN append. Listings appended based on last four digits of input SSN. First name (or initial), last name and full address (street address, city and state) are also required. 		
firstName	The first name to be searched for.	N	
lastName	The last name to be searched for.	N (Y for SSN query type)	
businessName	The name of the business to be searched for.	N	
phoneNumber	The ten digit phone number (area code, exchange and line) without any formatting.	N (Y for RPA, TEL and LIA query types)	
address	The one line address (e.g. <i>100 Main St Apt 10</i>). Address range search is also supported (e.g. <i>100-150 Main St</i>).	N (Y for ADV and RAD query types)	
city	The city to be searched for.	N*	
state	The state to be searched for.	N*	
postal	The five digit ZIP code (either with or without ZIP+4) for US queries or the six character postal code for Canadian queries. Do not include the '-' for nine digit ZIP codes or the space for postal codes.	N*	
Country	The country to be searched for.	N	US
SSN	The nine digit social security number (SSN) to be searched for.	N (Y for the SSN and SSO query types)	

* Please note that for RAD queries either the location must be specified using either the *city* AND *state* parameters OR the *postal* parameter. RAD queries not having *city* + *state* or *postal* will result in an error.

Output

The results of a *GetResponse* query are returned in a *FlexiResponse* object.

Table 2 - FlexiResponse Fields

Field	Description	Always Included?	Data Type
ResultCode	Indicates the result of the query. Valid values are: -1 an error occurred	Y	Integer

	0 the query executed successfully but no matches were found. 1 the query executed successfully and one or more matches were found.		
ReferenceID	User reference ID if supplied in query.	N	Text
QueryType	Indicates which query type the response is for. Valid values are: <ul style="list-style-type: none"> • FPA • RPA • SSN • SSO • ADV • RAD • TEL • LIA • MED 	Y	QueryType (enumeration)
ErrorInfo	Contains details of any errors that occur. See ErrorInfo element below.	N	ErrorInfo
LineInfo	See LineInfo element below.	N	LineInfo
VerificationInfo	See VerificationInfo element below.	N	VerificationInfo
SSNInfo	See SSNInfo element below.	N	SSNInfo
StandardizationInfo	See StandardizationInfo element below.	N	StandardizationInfo
ListingsInfo	See ListingsInfo element below.	N	ListingsInfo

The *ListingsInfo* object contains the following fields.

Table 3 – ListingsInfo Fields

Field	Description	Data Type
ListingsFound	The number of listings found that match the search criteria.	Integer
Listings	An array of Listing objects. See Table 4.	Listing[]

The *Listings* array contains a set of *Listings* items that contain data on each contact found.

Table 4 – Listing Fields

Field	Description	Data Type
FirstName	First name / initial	Text
LastName	Last name	Text
BusinessName	Business or government name	Text
Address	Street address	Text
City	City	Text
State	Two character state abbreviation.	Text
Postal	The ZIP or postal code (US or Canadian addresses respectively).	Text
Country	Country	Text
Phone	The ten digit phone number.	Text
Latitude	Latitude with a maximum of six decimal digits accuracy.	Text
Longitude	Longitude with a maximum of six decimal digits accuracy.	Text
CreationDate	The earliest date known for the listing (YYYYMMDD).	Text
TransactionDate	The last date a change was made to the listing (YYYYMMDD) if available.	Text
ListingSource	The source of the listing data. Possible values are: <ul style="list-style-type: none"> • Unknown • DA – directory assistance • NonDA • Delisted • Billing • Bureau 	ListingSource (enumeration)

ListingType	Describes what type of listing the record is. Possible values: <ul style="list-style-type: none"> • U – unknown • BG – Business or government • BR – Business or residential • RS - Residential 	ListingType (enumeration)
RestrictedData	Indicates if the data is from a data source that requires additional use restrictions. Use of this data is subject to the additional use restrictions noted in the document entitled <i>"Highly Sensitive Data Addendum To Data License Agreement"</i> . Any use of the data returned by the <i>GetRestrictedResponse</i> query for purposes other than those stated in this addendum is strictly prohibited.	Boolean
NonPublished	Whether the listing is non-published (contact has asked that the listing not be published)	Boolean
Carrier	Name of the telephone company that services the phone number. The Carrier field is only populated for the first two unique phone numbers.	Text
PhoneServiceType	One of the following values: <ul style="list-style-type: none"> • Unknown • Landline • Wireless • Special • Beeper • VOIP • Invalid The PhoneServiceType field is only populated for the first two unique phone numbers. The remaining listings will have a value of Unknown.	
Ported	Whether the phone number has been ported. Valid values are: <ul style="list-style-type: none"> • Y – number has been ported. • N – number has not been ported. • U – unknown. The Ported field is only populated for the first two unique phone numbers.	

The *ErrorInfo* object contains the following fields.

Table 5 – ErrorInfo Fields

Field	Description	Data Type
ErrorCode	Numeric value indicating the type of error	Integer
Description	Text description of the error.	Text

The *LineInfo* object contains the following fields.

Table 6 – LineInfo Fields

Field	Description	Data Type
PhoneServiceType	One of the following values: <ul style="list-style-type: none"> • Unknown • Landline • Wireless • Special • Beeper • VOIP • Invalid 	PhoneServiceTypes (enumeration)
Carrier	Name of the telephone company that services the phone number.	Text
Ported	Whether the phone number has been ported. Valid values are:	Text

	<ul style="list-style-type: none"> • Y – number has been ported. • N – number has not been ported. • U – unknown. 	
City	City associated with the phone number.	Text
State	State associated with the phone number.	Text
OCN	The OCN (operating carrier number) of the carrier servicing the phone number.	Text

The *SSNInfo* object contains the following fields. Not every field is available with every response so some or all of the fields may be blank even if listings are found on an SSN or SSO query.

Table 7 – SSNInfo Fields

Field	Description	Data Type
DOB	Date of birth (YYYYMM or YYYYMMDD) if known, otherwise blank.	Text
DOD	If the person is deceased the date of death (YYYYMMDD) if known, otherwise blank.	Text
IsDeceased	Indicates if the person is deceased. Valid values are: <ul style="list-style-type: none"> • Y – person is deceased. • N – person is not deceased. • U – unknown. 	Text
LastStateOfResidence	If the person is deceased the last state of residence if known.	Text
SSN	The matched SSN.	Text

The *StandardizationInfo* object contains the following fields.

Table 8 –StandardizationInfo Fields

Field	Description	Data Type
USPSCodes	Additional information about the input address. The list of possible values is as follows : <ul style="list-style-type: none"> • 5-digit ZIP code has been corrected • City/state spelling has been corrected • City/state/ZIP are invalid • No ZIP+4 has been assigned • ZIP code has been assigned for multiple response • Address not found with the city/state/zip provided • Part of the firm was moved to address • Secondary number was missing for this address • Insufficient/incorrect address data was supplied • PO box address used for dual address • Non-PO box address used for dual address • Delivery address component has been changed • Street name has been changed • Delivery address has been standardized • Delivery address is known by a preferred name • Address is not in current data but will be added in the future • Secondary number does not match • Address has magnet street syndrome (multiple) • City or PO name supplied was not an official last line name • City or state could not be verified as corresponding to the ZIP code • Address was identified as a small town default • Address has a unique ZIP code default • Match made using ZIPMOVE data • Match has been made to a unique ZIP 	Text
DPVCodes	A list of one or more DPV codes. The list of possible DPV codes is as follows:	Text

	<ul style="list-style-type: none"> • AA - Input matched ZIP+4 file • A1 - Input did not match ZIP+4 file • BB - Input matched to DPV • CC - Input primary # matched, secondary # invalid • F1 - Input matched ZIP+4 file, military • G1 - Input matched ZIP+4 file, general delivery • N1 - Input primary # matched, unit # missing • M1 - Input primary # missing • M3 - Input primary # invalid • P1 - Input PO/RR/HC box # missing • P3 - Input PO/RR/HC box # invalid • RR - Input matched to CMRA • R1 - Input matched to CMRA, secondary # missing • U1 - Input matched ZIP+4 file, unique ZIP 	
CASSCodes	<p>One or more CASS notes providing additional information about the input address. The list of possible values is as follows:</p> <ul style="list-style-type: none"> • ZIP+4 has been assigned • DPBC has been assigned • 5 digit ZIP has been assigned • Address is a High Rise Default • Address is a High Rise Exact • Address is a Rural Route Default • Address is a Rural Route Exact • Address converted using LACS 	Text

The *VerificationInfo* object contains the following fields.

Table 9 – VerificationInfo Fields

Field	Description	Data Type
VerificationLevel	<p>Indicates which fields of the input data were verified.</p> <ul style="list-style-type: none"> -3 Information supplied is invalid. Typically caused by an invalid phone number. -2 Carrier does not support verification. -1 Phone number is disconnected. 0 Not confirmed. No matching attributes were found. 2 Phone confirmed. The phone number is active but the name or household could not be verified. 3 Only the phone was confirmed. The phone number is active but the name/address could not be verified because the carrier does not support name/address verification. 4 Account confirmed. Last name and phone number were verified. 6 Location confirmed. Last name, phone number and location (city/state or postal code) were verified. 7 Address, location (city/state or postal code) and phone were verified. <i>(No name match)</i> 8 Household confirmed. Last name, address and phone number were verified. 10 Individual confirmed. First and last names, address and phone number were all verified. 	Integer
AccountAge	<p>Indicates how long the data provider has had the account on file.</p> <ul style="list-style-type: none"> 1 Less than thirty days¹ 2 Less than six months 3 More than six months 	Integer

¹ For future use.

	4 More than one year	
	9 Unknown	

Error Codes

Table 10 - Error Codes

Error Code	Description
0	Success – no error
1	Unauthorized access. Account ID is invalid.
2	Subscriber ID is missing.
10	An error occurred processing the request.
11	Unrecognized query type specified.
50	An error occurred validating the request.
51	Permissible use not specified.
52	Phone number is missing or invalid.
100	An error occurred executing the FPA query.
200	An error occurred executing the RPA query.
300	An error occurred executing the SSN query.
301	SSN is required.
302	Last name is required.
303	Invalid SSN.
400	An error occurred executing the ADV query.
401	Street address is required.
402	Either a city and state OR a postal code is required.
410	An error occurred retrieving the property information.
500	An error occurred executing the RAD query.
501	An invalid country was specified.
600	An error occurred executing the TEL query.
700	An error occurred executing the LIA query.