



# **DOTS Lead Enhancement Plus (LEP)**

Developer's Guide

Version 1.1.1  
August 16, 2010  
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## Introduction

DOTS Lead Enhancement Plus(also referred to as LEP) is a publicly available XML web service that is designed to enhance, embellish and append additional elements to good leads. This service enhances the contact information with an emphasis on appending.

This composite service takes as completely optional inputs: Name, email, phone number, address1, address2, city, region, country, and IP address. The idea for this service is “do what you can with the data you are given”. This service makes use of many “ala carte” services provided by Service Objects, Inc to validate and append as best possible.

This service works for both US and Canadian leads. Address and phone information is only available for US and Canada so other international leads will not work correctly. International names, emails and IPs are acceptable.

The following services are used by DOTS Lead Enhancement Plus:

1. Address Validation – US and DOTS Address Validati-- Canada to return validated and standardized addresses with basic address data (DPV, RDI, County etc.)
2. DOTS Name Validation for basic name validation (e.g. is the name valid, does it match any celebrity names, is it vulgar, or is it made up of random characters).
3. DOTS GeophonePlus for reverse phone number lookups. This includes provider data (line type, carrier, and exchange information) and contact data (name, address and phone type of the numbers owner) for landline, wireless and VOIP numbers.
4. DOTS Email Validation2 for basic email checking (syntax, valid mail server and bogus/vulgar email detection etc...)
5. DOTS IP Validation for basic IP address information (city, region, country and proxy information).
6. DOTS Phone Append for returning alternative phone number information (a different phone number returned given a name and address).

Note: Currently this service has only one operation and the focus of that operation is to enhance residential leads. Business leads are not supported. A new operation geared toward business leads may be added in the future.

## Integration

Integrating LEP into your application should be easy and straightforward. If you are using a common platform, ServiceObjects may already have sample code built that you can use:

[http://www.serviceobjects.com/support/dots\\_example\\_code.asp](http://www.serviceobjects.com/support/dots_example_code.asp)

However, if you are using a common platform that does not already have sample code, you can ask Service Objects to build you an example. Email [support@serviceobjects.com](mailto:support@serviceobjects.com) for more details.

## Web Service Structure

Web services are methods that integrate with other applications via the web, and encapsulate tricky business logic. Web services are too large of a topic to cover in this document, but Service Objects has developed its web services to be as easy to integrate and as accessible as possible.

DOTS Lead Enhancement Plus is a public XML web service that supports SOAP, POST, and GET operations. Note that SOAP is done via POST, only with special XML markup in the post-body.

The host path, or physical location of the web service is here:

<http://trial.serviceobjects.com/le/LeadEnhancementPlus.asmx>

The location of the WSDL, or Web Service Definition Language document, is here:

<http://trial.serviceobjects.com/le/LeadEnhancementPlus.asmx?WSDL>

(This is also accessible via the “Service Definition” link.)

This WSDL is the definition of the web service, meaning its inputs, outputs, operations, and the like. Most likely, you will have another tool read this WSDL and make the operations available to you in your application. Whenever your utilities or IDE asks for a WSDL path to DOTS Lead Enhancement Plus, you can provide this one.

Every web service has *operations* that it offers to subscribers – methods that do different work and return different output. Currently DOTS Lead Enhancement Plus has only one operation:

**EnhanceResidentialLead** – Given any of the optional values: name, address, phone, email and IP attempt to validate, embellish and append as much data as possible to enhance the quality of the lead.

This operation will be described in more detail below...

## Request Types

LEP is a public XML web service that supports SOAP (1.1 and 1.2), POST and GET request methods. A request type is just the type of web (HTTP) request to interact with our web services.

**GET** - All of the input data is in the query string appended to the URL. The response is simple XML.

**POST** - The input parameters are in the body of the request instead of the query string. The response is simple XML.

**SOAP** - The input parameters are in an XML SOAP message contained in the body of the request. The response is an XML SOAP message.

## Analysis of Request Types

**GET** is the easiest method to implement by hand because all you have to do is set up the URL and query string. It is also easy to debug because you can test the URL + query string in a web browser and see the output.

**POST** is probably the best method to implement by hand because you do not have to know the specifics of SOAP, and is a little cleaner than passing input parameters in the query string via GET.

**SOAP** is the best method if you are using a platform that supports SOAP. In many programming environments you can give your IDE (Integrated Development Environment) the URL to the WSDL of a web service (<http://trial.serviceobjects.com/lep/LeadEnhancementPlus.asmx?WSDL>) and it will create a proxy class to help you interact with the web service. In this case you only have to create an instance of the proxy and use its methods. This completely abstracts the programmer from any complications like sending/receiving web requests/responses as well as any xml parsing.

## XML Parsing

If you are not using an environment that creates a proxy class for you to use, then you will have to parse xml. If you do have a proxy, then it uses an xml parser for you. Although xml parsing can be done without a parser, most programming environments provide easy access to several standard ones. **We strongly recommend that you take advantage of an xml parser.** These parsers may take a few extra minutes to integrate but will give your application an added level of security against improper parsing. Without them it is very difficult, even for skilled programmers to write robust code that can handle all cases of xml input properly. Because we have very consistent xml you could get away without this extra precaution, but we suggest you use an xml parser anyway to ensure your application is of the highest quality.

# Operation Definitions

This document defines the input, output and behavior of the web service operations in DOTS Lead Enhancement Plus.

## EnhanceResidentialLead

This is the main operation for validating and enhancing leads. It will attempt to append and enhance any lead given any combination of Name, Email, Phone Number, Address, Address2, City, Region, Postal Code, Country, and/or IP Address.

This operation is designed for residential leads. Business addresses will be identified as such and business phone contacts will be returned if given a phone number for a business but it is expected that the leads themselves will be primarily residential information. The name testing will not work if given a company name. A business oriented operation will likely be planned for a future release. This operation will likely involve different data sources and tests not run during residential lead testing.

## EnhanceResidentialLead Inputs

Name	Type	Description
Name	String	The name to validate.
Email	String	The email address to validate.
PhoneNumber	String	The phone number to validate.
Address	String	The address to validate.
Address2	String	Extra address information to include for validation.
City	String	The city to validate.
Region	String	The region to validate.
PostalCode	String	The postal code to validate.
Country	String	The country to validate.
IPAddress	String	The IP address to validate.
LicenseKey	String	Your license key to use the service. Sign up for a free trial key at <a href="http://www.serviceobjects.com">www.serviceobjects.com</a> .

Please Note: For any output fields, along with the states possible outputs in the "Values" column, expect that a blank result (empty string "") is also possible. It should never happen, but smart programming plans for potential NULL values for output fields as well.

## EnhanceResidentialLead Outputs

Name	Type	Values	Description
NameIn	String	Varies	The original name.
EmailAddressIn	String	Varies	The original email.
PhoneNumberIn	String	Varies	The original number.
AddressIn	String	Varies	The original address.
Address2In	String	Varies	The original address2.
CityIn	String	Varies	The original city.
RegionIn	String	Varies	The original region.
PostalCodeIn	String	Varies	The original postal code.
CountryIn	String	Varies	The original country.
IPAddressIn	String	Varies	The original IP.
FirstNameOut	String	Varies	The parsed out likely first name.
MiddleNameOut	String	Varies	The parsed out likely middle name
LastNameOut	String	Varies	The parsed out likely last name.
Gender	String	MALE, PROBABLY MALE, PROBABLY FEMALE, FEMALE, UNKNOWN	The likely gender of the lead.
FirstNameFound	String	TRUE, FALSE	The parsed out first name was identified as valid.
LastNameFound	String	TRUE, FALSE	The parsed out last name was identified as valid.
NameNotesDesc	String	See below	Extra informational notes about the name. See below for values.
NameNotesCode	String	Numerical code	A code associated with the name notes. See below for values.
Address1Out	String	Varies	The validated and standardized resulting address.
Address2Out	String	Varies	A placeholder for extra information that is not part of the standardized address.
CityOut	String	Varies	The validated and standardized city.
RegionOut	String	Varies	The validated and

			standardized region.
PostalCodeOut	String	Varies	The validated and standardized postal code.
CountryOut	String	Varies	The country the address is located in.
IsAddressDPV	String	TRUE, FALSE, UNKNOWN	An indicator telling if the standardized address is recognized as deliverable by the USPS.
IsAddressResidential	String	TRUE, FALSE	An indicator telling if the standardized address is recognized as residential by the USPS.
AddressNotesDesc	String	See below	Informational notes about the deliverability of the standardized address.
AddressNotesCode	String	Numerical code	A code associated with the address notes. See below for values.
AddressErrorDesc	String	See below	A description of any errors associated with the standardized address. See below for values.
AddressErrorCode	String	Numerical code	A code associated with the error description. See below for values.
PhoneNumberOut	String	Varies	A cleaned 10 digit phone number. Special characters and extension information removed.
CarrierName	String	Varies	The telephone company that owns the block of numbers designated by the first 7 digits of the number.
ExchangeCity	String	Varies	The city that the exchange (block of first 7 digits) belongs in.
ExchangeRegion	String	Varies	The region that the exchange (block of first 7 digits) belongs in.
ExchangeCountry	String	3 character code	The three character country code that the exchange (block of first 7 digits) belongs in.
PhoneLineType	String	LANDLINE,	The line type of the given

		WIRELESS, VOIP, UNKNOWN	phone number.
PhoneContacts		Zero to many phone contacts	The container for the phone contacts. A description of the fields in PhoneContacts can be found after the output list.
AlternativePhoneNumber	String	10 digits	An alternative phone number associated with the name and address.
PhoneNumberErrorDesc	String	See below	A description of any errors associated with the given phone number. See below for details.
PhoneNumberErrorCode	String	Numerical code	A numerical code associated with the error description. See below for values.
EmailAddressOut	String	Varies	A corrected and cleaned email address.
IsEmailAddressFree	String	TRUE, FALSE, UNKNOWN	An indicator of whether or not the email is available to anyone freely.
IsEmailAddressGood	String	TRUE, FALSE, UNKNOWN	An indicator of whether the email is known to be bad based on testing. See FAQ for more detail.
EmailNotesDesc	String	See below	Noteworthy information discovered about the email. See below for a complete list.
EmailNotesCode	String	Numerical code	A numerical code associated with the note above.
EmailErrorDesc	String	See below	A description of any errors associated with the email. See below for a complete list.
EmailErrorCode	String	Numerical code	A numerical code associated with the error above.
IPAddressCity	String	Varies	The city associated with the IP address.
IPAddressRegion	String	Varies	The state or province associated with the IP

			address.
IPAddressCountry	String	Varies	The country associated with the IP address.
IPAddressCountryISO2	String	2 character code	The two character country code associated with the IP address.
IPAddressCountryISO3	String	3 character code	The three character country code associated with the IP address.
IPAddressCertainty	String	0-100	A certainty value for how accurate the IP address information is likely to be.
IPAddressISP	String	Varies	The ISP which assigned the IP address.
IPAddressNetblockOwner	String	Varies	The network owner to which the IP address is allocated.
IPAddressIsProxy	String	TRUE, FALSE, UNKNOWN	Indicates whether the IP address is a known proxy.
IPAddressProxyType	String	PRIVATE, PUBLIC, ANONYMOUS	Indicates the type of proxy found.
IPErrorDesc	String	See below	A description of any errors associated with the IP address. See below for a complete list.
IPErrorCode	String	Numerical code	A numerical code associated with the error above.

PhoneContacts (The following are the values contained in the PhoneContacts container described above)

Name	Type	Value	Description
Name	String	Varies	A personal or business name registered to the number.
Address	String	Varies	The address registered to the number.
City	String	Varies	The city registered to the number.
Region	String	Varies	The state or province registered to the number.
PostalCode	String	Varies	The postal code registered to the number.

PhoneType	String	RESIDENTIAL, BUSINESS, UNKNOWN	The phone type associated with the number.
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## Error and Note Possible Values

Several of the DOTS Lead Enhancement Plus output fields contain description and code results that have set values. The following section lists the code and description for all possible results. The headers contain the code and description name exactly as they appear in the output. See FAQ for more details on certain descriptions.

### Name Notes

NameNotesCode	NameNotesDesc
1	Name may be a well known character or celebrity.
2	Name may be vulgar.
3	Name may be nonsensical.
4	Name may be made of random characters.
5	Name may be a dictionary word.

### Address Notes

AddressNotesCode	AddressNotesDesc
1	Yes, the input record is a valid mailing address.
2	No, the input record is not in the DPV database of valid mailing addresses.
3	The apartment or rural route box number is not valid, although the house number or rural route is valid.
4	The input record is a valid mailing address, but is missing the apartment or rural route box number.

### Address Errors

AddressErrorsCode	AddressErrorsDesc
1	Street not found.
2	Street number or box number out of range.
3	Address not found.
4	Multiple addresses match.
5	Insufficient address data.

#### Phone Number Errors

PhoneNumberErrorCode	PhoneNumberErrorDesc
1	Phone Number is invalid.
2	Phone Number is reserved.

#### Email Notes\*

EmailNotesCode	EmailNotesDesc
1	Email belongs to a catchall server.
2	Email appears to be bogus.
3	Email contains vulgar words.
4	Email is established with spammers.
5	Email is an alias.
6	Email appears to contain random characters.
7	Email mailbox is known to be invalid.

\*Note: Email Notes are the only output fields that allows for multiple results. So for example, EmailNotesDesc could read “**Email belongs to a catchall server. Email contains vulgar words.**” with the corresponding EmailNotesCode: “**1,3**”

#### Email Errors

EmailErrorsCode	EmailErrorsDesc
1	Email has bad syntax.
2	Email domain or server is not valid.

#### IP Errors

IPErrorCode	IPErrorDesc
1	IP Address was not found.
2	IP Address does not appear to have valid syntax.
3	IP Address appears to belong to a private/local network.

# Errors

Anything that happens during a run of DOTS Lead Enhancement Plus that causes it to be unable to finish its normal processing is an error. If an error occurs, something like the following will be the result instead of the normal output:

**Example:**

```
<Error>  
  <Type>Authorization</Type>  
  <TypeCode>1</TypeCode>  
  <Desc>Your license key does not work on this service.</Desc>  
  <DescCode>8</DescCode>  
</Error>
```

There are four error types described below. For DOTS Lead Enhancement Plus, the first two will be the most common.

## Error Types

Type	TypeCode	Billable	Standard for all Gen2 Web Services
Authorization	1	No	Yes
User Input	2	Yes	No
Service Objects Fatal	3	No	Yes
Domain Specific	4	Yes	No

## Error type 1: Authorization

These are standard to all Generation 2 DOTS Web Services.

DescCode	Desc
0	Unknown authorization error.
1	Please provide a valid license key for this web service.
2	The daily allowable number of transactions for this license key has been exceeded.
3	The monthly allowable number of transactions for this license key has been exceeded.
4	The total allowable number of transactions for this license key has been exceeded.
5	There are not enough transactions available. Check your

- 6      daily/monthly transaction limits.
- 6      This license key has not yet been activated.
- 7      This license key has expired.
- 8      Your license key does not work on this service.

### **Error type 2: User Input**

These errors occur as a result of bad input. This is difficult as DOTS Lead Enhancement Plus will accept whatever input is given to it and do the best it can. All inputs with the exception of License Key are optional.

There are currently no user input errors for this service.

### **Error type 3: Service Objects Fatal**

The Desc will always be the same and the DescCode has no meaning. This is standard to all Generation 2 DOTS Web Services. This is a rare error that signals either a bug in the DOTS Lead Enhancement Plus service, or a Network/Connectivity issue.

DescCode	Desc
1	Unhandled error. Please contact Service Objects.

### **Error type 4: Domain Specific**

Domain specific errors represent the normal errors seen in Service Objects services. For example, if the user is looking for an address in DOTS Address Validation and the address does not exist, a valid domain specific error is "Address not found."

## Example Leads

The following are two leads, one good and one bad, to illustrate what the service can do.

The first lead is Mr. Bob Smith. He is not a real person and his data is not real, but the following results show what a good lead would look like. For the purpose of this example, all of the data inputs are good and all return maximum appended information.

The first and last name are properly broken out and validated. The input street address is standardized and corrected by USPS standards and found to be delivery point valid (DPV). The phone number returns exchange information and a contact matching the original input data. The emails domain and server are checked and returned as valid. Finally, the IP address is validated and returns a local ISP.

```
<Lead>
  <NameIn> Mr. Bob Smith Jr</NameIn>
  <EmailAddressIn>bsmith@aol.com</EmailAddressIn>
  <PhoneNumberIn>(805)/555/4043</PhoneNumberIn>
  <Address1In>802 E Cota Street</Address1In>
  <Address2In />
  <CityIn>Santa Barbara</CityIn>
  <RegionIn>CA</RegionIn>
  <PostalCodeIn>93101 </PostalCodeIn>
  <CountryIn>USA</CountryIn>
  <IPAddressIn>64.138.19.68</IPAddressIn>
  <FirstNameOut>Bob</FirstNameOut>
  <MiddleNameOut />
  <LastNameOut>Smith</LastNameOut>
  <GenderOut>MALE</GenderOut>
  <FirstNameFound>TRUE</FirstNameFound>
  <LastNameFound>TRUE</LastNameFound>
  <NameNotesDesc />
  <NameNotesCode />
  <Address1Out>802 E Cota St</Address1Out>
  <Address2Out />
  <CityOut>Santa Barbara</CityOut>
  <CountyOut>Santa Barbara</CountyOut>
  <RegionOut>CA</RegionOut>
  <PostalCodeOut>93103</PostalCodeOut>
  <CountryOut>USA</CountryOut>
  <IsAddressDPV>TRUE</IsAddressDPV>
  <IsAddressResidential>TRUE</IsAddressResidential>
```

<AddressNotesDesc>**Yes, the input record is a valid mailing address.**</AddressNotesDesc>  
<AddressNotesCode>**1**</AddressNotesCode>  
<AddressErrorDesc />  
<AddressErrorCode />  
<PhoneNumberOut>**8055554043**</PhoneNumberOut>  
<CarrierName>**SPRINT COMMUNICATIONS COMPANY, L.P. - CA**</CarrierName>  
<ExchangeCity>**SANTA BARBARA**</ExchangeCity>  
<ExchangeRegion>**CA**</ExchangeRegion>  
<ExchangeCountry />  
<PhoneLineType>**LANDLINE**</PhoneLineType>  
<PhoneContacts>  
  <PhoneContact>  
    <Name>**BOB SMITH**</Name>  
    <Address>**802 E COTA ST**</Address>  
    <City>**SANTA BARBARA**</City>  
    <Region>**CA**</Region>  
    <PostalCode>**93103**</PostalCode>  
    <Type>**RESIDENTIAL**</Type>  
  </PhoneContact>  
</PhoneContacts>  
<AlternativePhoneNumber>**8055554043**</AlternativePhoneNumber>  
<PhoneNumberErrorDesc />  
<PhoneNumberErrorCode />  
<EmailAddressOut>**bsmith@aol.com**</EmailAddressOut>  
<IsEmailAddressFree>**UNKNOWN**</IsEmailAddressFree>  
<IsEmailAddressGood>**TRUE**</IsEmailAddressGood>  
<EmailNotesDesc />  
<EmailNotesCode />  
<EmailErrorDesc />  
<EmailErrorCode />  
<IPAddressCity>**Santa Barbara**</IPAddressCity>  
<IPAddressRegion>**CA**</IPAddressRegion>  
<IPAddressCountry>**United States**</IPAddressCountry>  
<IPAddressCountryISO2>**US**</IPAddressCountryISO2>  
<IPAddressCountryISO3>**USA**</IPAddressCountryISO3>  
<IPAddressCertainty>**95**</IPAddressCertainty>  
<IPAddressISP>**Masergy Communications**</IPAddressISP>  
<IPAddressNetblockOwner>**CARDINAL SOLUTIONS GROUP**</IPAddressNetblockOwner>  
<IPAddressIsProxy>**FALSE**</IPAddressIsProxy>  
<IPAddressProxyType />  
<IPAddressErrorDesc />  
<IPAddressErrorCode />  
</Lead>

The next lead is an obvious fake, but it illustrates some of the results for bad information. Every element in this lead is fake and errors or other information is returned describing the issues found. This lead has been run through the DOTS Lead Enhancement Plus service.

The given name is validated and identified as good, but a note is added to mention that a match with a well know character has been made. The Address was made up and an error of "Street not found." is given in the output. Likewise, the phone number is also made up and is given an error of "Invalid number.". The email comes from a good domain and server, but notes three issues with the email address: It's a catchall server, it appears to be bogus, and it has been found in spam lists. Finally, a true IP address has not been given, instead, an IP designating a local area network has.

```
<Lead>
<NameIn>Homer Simpson</NameIn>
<EmailAddressIn>test@hotmail.com</EmailAddressIn>
<PhoneNumberIn>6666666666</PhoneNumberIn>
<Address1In>123 fake street</Address1In>
<Address2In />
<CityIn>Santa Barbara</CityIn>
<RegionIn>CO</RegionIn>
<PostalCodeIn>93103</PostalCodeIn>
<CountryIn>USA</CountryIn>
<IPAddressIn>127.0.0.1</IPAddressIn>
<FirstNameOut>Homer</FirstNameOut>
<MiddleNameOut />
<LastNameOut>Simpson</LastNameOut>
<GenderOut>MALE</GenderOut>
<FirstNameFound>TRUE</FirstNameFound>
<LastNameFound>TRUE</LastNameFound>
<NameNotesDesc>Name may be a well known character or
  celebrity.</NameNotesDesc>
<NameNotesCode>1</NameNotesCode>
<Address1Out />
<Address2Out />
<CityOut />
<CountyOut />
<RegionOut />
<PostalCodeOut />
<CountryOut />
<IsAddressDPV />
```

<IsAddressResidential />  
<AddressNotesDesc />  
<AddressNotesCode />  
<AddressErrorDesc>**Street not found.**</AddressErrorDesc>  
<AddressErrorCode>1 </AddressErrorCode>  
<PhoneNumberOut>**6666666666**</PhoneNumberOut>  
<CarrierName />  
<ExchangeCity />  
<ExchangeRegion />  
<ExchangeCountry />  
<PhoneLineType>**UNKNOWN**</PhoneLineType>  
<AlternativePhoneNumber />  
<PhoneNumberErrorDesc>**Phone Number is invalid.**</PhoneNumberErrorDesc>  
<PhoneNumberErrorCode>1 </PhoneNumberErrorCode>  
<EmailAddressOut>**shit@hotmail.com**</EmailAddressOut>  
<IsEmailAddressFree>**TRUE**</IsEmailAddressFree>  
<IsEmailAddressGood>**FALSE**</IsEmailAddressGood>  
<EmailNotesDesc>**Email belongs to a catchall server. Email appears to be bogus.  
Email is established with spammers.**</EmailNotesDesc>  
<EmailNotesCode>**1,2,4**</EmailNotesCode>  
<EmailErrorDesc />  
<EmailErrorCode />  
<IPAddressCity />  
<IPAddressRegion />  
<IPAddressCountry />  
<IPAddressCountryISO2 />  
<IPAddressCountryISO3 />  
<IPAddressCertainty />  
<IPAddressISP />  
<IPAddressNetblockOwner />  
<IPAddressIsProxy />  
<IPAddressProxyType />  
<IPAddressErrorDesc>**IP Address appears to belong to a private/local  
network.**</IPAddressErrorDesc>  
<IPAddressErrorCode>3 </IPAddressErrorCode>  
</Lead>

## Integration and FAQ

Integrating DOTS Lead Enhancement Plus into your application should be easy and straightforward. If you are using a common platform, Service Objects may already have sample code built that you can use:

[http://www.serviceobjects.com/support/dots\\_example\\_code.asp](http://www.serviceobjects.com/support/dots_example_code.asp)

However, if you are using a common platform that does not already have sample code, you can ask Service Objects to build you an example. Email [support@serviceobjects.com](mailto:support@serviceobjects.com) for more details.

### **The Sample Code is Giving Strange Errors or is Crashing!**

Most likely, the sample code cannot connect to Service Objects. Many environments will not allow you to connect out on port 80, or will clip out XML data from these requests/responses.

The easiest way to check for this is to open a browser on the machine running the sample code. In your browser, navigate to:

<http://trial.serviceobjects.com/lep/LeadEnhancementPlus.aspx>

Then try to run one of the operations with your trial key. If you get a browser error, or get no data back, then the sample code isn't able to connect, either. Contact your systems administrator to resolve why you are not able to connect to Service Objects.

### **How often do you update your data?**

Address data is updated monthly. Phone and IP data is updated daily. Email data is not updated, it is checked dynamically (we test the email at the time of the request).

### **Can DOTS Lead Enhancement Plus give me the information for Canadian Leads?**

Yes – normally. Our dataset for Canada isn't as extensive as our dataset for the US, but DOTS Lead Enhancement Plus returns information for Canadian phone numbers and addresses.

### **Where do you get your address information?**

We gather our data from many various sources. The short answer is the US Postal Service.

### **What does the address error “Multiple addresses match.” mean? How do I get a single result?**

“Multiple addresses match.” means that LEP found the address, but couldn't resolve it from other addresses that were very similar, typically because of directional elements.

For example, if you validate “123 Main street, Anytown, CA”, but in Anytown, CA, there is only a “West Main street” and an “East Main street”, then this will result in a “Multiple Addresses Match”. You will need to specify either West Main or East Main as the street name to get a corrected, single address.

There are other cases in which “multiple addresses match” will occur, but are rare and often have to do with a difference in zip+4, or suite numbers.

### **I got an “Insufficient address data” error from my address. What does that mean?**

This error is a catchall for gross errors in the input address. It generally means that the address was too incomplete to piece together or too messy to parse out into identifiable parts.

### **DOTS Lead Enhancement Plus doesn't return any contact data for my phone number!**

If your phone number is unlisted the contact data for your number may be unavailable. Additionally, if your number is for a cellular phone, contact data may be less consistently returned. If it does not return any information for the exchange, then you may have mistyped your phone number. A valid phone number will always return exchange information, whether it is wireless or landline, connected or disconnected.

### **Can DOTS Lead Enhancement Plus give me the information for a disconnected number?**

No, this is not currently available in this service. If you are interested in using this data, please contact us at [support@serviceobjects.com](mailto:support@serviceobjects.com), and we will let you know when that has been implemented.

### **I'm seeing multiple contacts at a single phone number. Who is really going to pick up the phone?**

Honestly, any one of them! Typically, this means that multiple people at registered at that phone number, which happens with many small businesses. Oftentimes, when you call that number, you will get an operator or switch where you can ask for the person you're looking for. If the phone number resolves to a residential address, all of the contacts may be roommates.

If you need to verify that a particular person is at that phone number, simply search for that person in the list of contacts. They are not in any particular order when they are returned.

### **Can I get more detail on the possible outcomes for NameNotes?**

These fields are designed to notify the user when something strange was found while validating the name component. A celebrity note will be returned if the name matches a known celebrity or character. A vulgar note will be returned if the name matches a vulgar word. This needs to be a match of a vulgar word to one of the names not a part of a name. For example "Shitake" or "Bass" will not return as vulgar. An example of a nonsensical name would be I. P. Freely. A name that is made of random characters contains combinations of letters or special characters that are not likely to be in a real name. A dictionary word identifies names like "Happy Day" or "Gang Love" that are not likely to be a real name.

### **Ok, how about EmailNotes?**

These fields identify interesting or noteworthy pieces of information about the email address. A catchall server is a mail server that always accepts mail to any box in that domain (\*@domain). This helps hide valid email addresses from spammers but makes it difficult to validate whether an email is good or not. A bogus email is an indicator of obviously bogus email addresses such as [a@a.com](mailto:a@a.com), [asdf@asdf.com](mailto:asdf@asdf.com) and [bgates@microsoft.com](mailto:bgates@microsoft.com). A vulgar email is simply one that contains vulgar words. An email that is established with spammers is one that is known within large lists of bulk-marketing list. An email is considered

an alias if it matches the alias rules for different sites. For example, any email with “+” in it at gmail.com is an alias. Also used to identify disposable emails such as [anything@mailinator.com](mailto:anything@mailinator.com) where someone can get a temporary email address. An email made of random characters is one that has an excessive amount of letters that do not seem to mean anything.

### **What are the types of proxies returned in IPAddressProxyType?**

It's not unusual to come across proxies while investigating IP addresses. Proxies are never great because they give the user the ability to hide their location, intended or not. This service returns three types of proxies: PRIVATE, PUBLIC and ANONYMOUS. Private proxies are very common. AOL and MSN internet service users will all have IP's using private proxies. Since these are common and legitimate, they will most likely not be fraudulent. However, having an AOL IP address does allow the user to hide their true location and there is always the potential for fraud. Public proxies are most definitely bad. IP's that have been reported as either hacked computers or are known to have made fraudulent requests are labeled as PUBLIC. IP addresses with the tag ANONYMOUS represent IP's that are intentionally misleading their location. A user can log into a service (providing this proxy) and make requests from there (the service can be anywhere and masks the users original location). While these types of proxies are not necessarily fraudulent the intent to hide location is inherently very high risk.

### **I need more information on the output field IsEmailAddressValid what does it mean?**

The results of this field are based on several other included results (primarily errors and email notes). A “FALSE” result indicates a high likelihood of a bad email. Any combination of bad DNS, SMTP, mailbox or vulgar, alias, or bogus email addresses will return a “FALSE”. This should be considered a strong guess or likely indicator of a bad email and not a guaranteed check. It's definitely possible for someone to have a vulgar word in their normal email address, we just do not think it should be considered a good one. Since all of the elements that make up this check are included in the output, you as the user, are more than welcome to use your own criteria for determining email validity. Please note: A full email mail box check is not performed during the normal run of a DOTS Lead Enhancement Plus transaction because this check can be very time consuming. However, if we happen to know that the email is good or bad, we will include those results.

### **I see another service called DOTS Lead Enhancement. What is the difference between this service and that one?**

DOTS Lead Enhancement Plus is a premium service that has access to data sources not available to the DOTS Lead Enhancement service. These include phone contact data (contact name and address) and the appending of alternative phone numbers for leads. DOTS Lead Enhancement otherwise provides similar results and can be a good option for any users on a strict budget.

### **I'm Not a Programmer. How Do I Use DOTS Lead Enhancement Plus?**

Service Objects runs batches for you! A free batch trial is available at <http://www.serviceobjects.com/batch/signup1.asp>.

## **Conclusion**

Service Objects is proud to offer you a free trial of DOTS Lead Enhancement Plus.

Sign up today for a free trial at:

[http://www.serviceobjects.com/products/dots\\_lead\\_enhancement\\_plus.asp](http://www.serviceobjects.com/products/dots_lead_enhancement_plus.asp)

Other technical questions or concerns can be directed to [support@serviceobjects.com](mailto:support@serviceobjects.com).

If you are interested in purchasing DOTS Lead Enhancement Plus, please contact [sales@serviceobjects.com](mailto:sales@serviceobjects.com).

We welcome your feedback! Please do not hesitate to let us know what you think of our web services, documentation, or customer support.

[www.serviceobjects.com](http://www.serviceobjects.com)