

## CDYNE Postal Address Verification Web Service

Version 4.3

### WSDL:

<http://ws.cdyne.com/psaddress/addresslookup.asmx?wsdl>

### Testing URL:

<http://ws.cdyne.com/psaddress/addresslookup.asmx>

### Developer Resources:

[http://wiki.cdyne.com/wiki/index.php?title=Postal\\_Address\\_Verification](http://wiki.cdyne.com/wiki/index.php?title=Postal_Address_Verification)

### Product Web Page:

<http://www.cdyne.com/products/postal-address-verification.aspx>

**Description:** Utilize this XML Web Service to return a certified deliverable address. CDYNE Postal Address Verification helps prevent spelling and formatting errors by enforcing address standardization during entry. The service returns Latitude/Longitude, ZIP+4, Bar Code information, District Type, Time Zone, Census Block and more.

CDYNE's fully redundant server farms deliver results in a fraction of a second, especially important for a business that collects customer postal address data through sales or enrollment portals.

The service can be programmed to clean customer lists by scheduling periodic scrubbing or maintaining integrity at point of entry, providing unparalleled accuracy in gathering and maintaining address data. Efficiency of route sales and delivery planners can be increased by correctly identifying map coordinates (using latitude and longitude data) that can be fed into drivers' GPS Navigation Systems.

**“CheckAddress”, “CheckAddressW2lines” and “AdvancedCheckAddress” are the most commonly used functions.**

Postal Address Verification is part of CDYNE's suite of fraud detection products that includes Email Verification, Phone Verification, Phone Notify!, and Death Index for complete customer record validation.

**Required License Information:** The *LicenseKey* parameter that is seen in most operations of this Web Service is required to authenticate users invoking this Web Service. You must obtain a valid License Key. You can sign up for this service by using the 'Buy

Now' button located on the Product Web Page (see link at top of document) or by contacting CDYNE for a limited Trial License Key.

EXAMPLE:

Licensing parameter seen in numerous operations	Sample Input
LicenseKey	F01d89fd-5155-5455-5585-e84ab8de8591

### Operations:

- **AdvancedCheckAddress**
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- **CheckAddress**
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- **CityStateToZipCodeMatcher**
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#### ▼ **AdvancedCheckAddress**

Operation: <b>AdvancedCheckAddress</b> Input		
Parameter Name	Data Type	Sample Input
<b>AddressLine:</b> Input address number and street name.	<i>String</i>	2125 Smith Ave
<b>AddressLine2:</b> Input secondary line information	<i>String</i>	Suite 202
<b>ZipCode:</b> Input ZIP Code.	<i>String</i>	23320
<b>City:</b> Input City name.	<i>String</i>	Chesapeake
<b>StateAbbrev:</b> Input State abbreviation.	<i>String</i>	VA
<b>LicenseKey:</b> See page 1 for more info.	<i>String</i>	F01d89fd-5155-5455-5585-e84ab8de8591

Operation: <b>AdvancedCheckAddress</b> Output		
Parameter Name	Data Type	Sample Output
<b>ServiceError:</b> Returns true or false if an internal error with service. <i>Boolean</i>	<i>Boolean</i>	False
<b>AddressError:</b> Returns true or false if an error processing address. <i>Boolean</i>	<i>Boolean</i>	False
<b>AddressFoundBeMoreSpecific:</b>	<i>Boolean</i>	False

Returns true if address needs more information.		
<b>CheckDigit:</b> Returns digit used in PostNet Barcode.	<i>String</i>	7
<b>NeedCorrection:</b> Returns true or false if address needed correction.	<i>Boolean</i>	True
<b>FromLongitude:</b> Returns 'from' longitude.	<i>String</i>	-76.228684
<b>FromLatitude:</b> Returns 'from' latitude.	<i>String</i>	36.794340
<b>ToLongitude:</b> Returns 'to' longitude.	<i>String</i>	-76.229660
<b>ToLatitude:</b> Returns 'to' latitude.	<i>String</i>	36.798348
<b>AvgLongitude:</b> Average longitude position for address.	<i>String</i>	
<b>AvgLatitude:</b> Average latitude position for address.	<i>String</i>	
<b>hasDaylightSavings:</b> Returns true or false if address location has Daylight Savings.	<i>Boolean</i>	
<b>LLCertainty:</b> Returns certainty of address lat and long. (if available)	<i>String</i>	
<b>CountyNum:</b> Returns County number.	<i>String</i>	0
<b>Firm:</b> Returns building or firm name.	<i>String</i>	BLDG
<b>DeliveryAddress:</b> Returns corrected delivery address.	<i>String</i>	2125 SMITH AVE STE 202
<b>DeliveryAddress2:</b> Returns secondary delivery address. (if applicable)	<i>String</i>	
<b>PrimaryLow:</b> Returns low-end address of range of addresses.	<i>String</i>	2125
<b>PrimaryHigh:</b> Returns high-end address of range of addresses.	<i>String</i>	2125
<b>PriEO:</b> Returns code that identifies side of street address is on. Odd (O), even (E), or both (B).	<i>String</i>	B
<b>SecEO:</b> Returns code for secondary address being odd (O), even (E), or both (B).	<i>String</i>	
<b>SecondaryLow:</b> Returns secondary low-end address of range of addresses.	<i>String</i>	
<b>SecondaryHigh:</b> Returns secondary high-end address of range of addresses.	<i>String</i>	

<b>Secondary:</b> Returns abbreviation for apartment, suite, or trailer number. (if applicable)	<i>String</i>	STE
<b>Extra:</b> Returns any extra information provided in input not needed for address correction. Ex: ATTN:	<i>String</i>	
<b>City:</b> Returns City.	<i>String</i>	CHESAPEAKE
<b>StateAbbrev:</b> Returns State abbreviation.	<i>String</i>	VA
<b>ZipCode:</b> Returns ZIP Code. ( <b>Not certified as deliverable if +4 not returned</b> )	<i>String</i>	23320-2518
<b>CarrierRoute:</b> Returns Carrier Route ID.	<i>String</i>	C006
<b>County:</b> Returns County name.	<i>String</i>	CHESAPEAKE CITY
<b>DeliveryPoint:</b> Returns Delivery Point Number.	<i>String</i>	52
<b>BarCode:</b> Returns address bar code.	<i>String</i>	f233202518527f
<b>CSKey:</b> Returns City State Key.	<i>String</i>	0
<b>UpdateKey:</b> Returns internal variable that can be used if any problems with address. (if available)	<i>String</i>	
<b>RecordTypeCode:</b> F=Firm, G=General Delivery, H=High-Rise, P=P.O. Box, R=Rural Route/Highway Contract, S= Street.	<i>String</i>	H
<b>CongressDistrictNumber:</b> Returns Congress District Number.	<i>String</i>	4
<b>FIPS:</b> Returns Federal Information Processing Standard Code.	<i>String</i>	51550
<b>FinanceNumber:</b> Returns USPS Finance Number.	<i>String</i>	
<b>CMSA:</b> Returns US Census Consolidated Metropolitan Statistical Area.	<i>String</i>	5720
<b>PMSA:</b> Returns US Census Primary Metropolitan Statistical Area.	<i>String</i>	
<b>MSA:</b> Returns US Census Metropolitan Statistical Area.	<i>String</i>	5720
<b>MA:</b> Returns Metropolitan Area.	<i>String</i>	572
<b>TimeZone:</b> Returns Time Zone for area.	<i>String</i>	EST
<b>AreaCode:</b> Returns Area Code.	<i>String</i>	757
<b>PreferredCityName:</b> Returns preferred City name.	<i>String</i>	CHESAPEAKE

<b>CensusBlockNum:</b> Returns Census Block Number.	<i>String</i>	4001
<b>CensusTractNum:</b> Returns Census Tract Number.	<i>String</i>	0208.01
<b>Primary:</b> Returns primary street house number.	<i>String</i>	2125
<b>PrefixDirection:</b> Returns direction designation. Ex: N, S, E, W. (if available)	<i>String</i>	
<b>StreetName:</b> Returns street name.	<i>String</i>	SMITH
<b>Suffix:</b> Returns address component. Ex: AVE, LN, DRIVE.	<i>String</i>	AVE
<b>PostDirection:</b> Returns direction designation (after suffix). Ex: N, S, E, W. (if available)	<i>String</i>	
<b>SecondaryNumber:</b> Returns number indicating suite, apartment, or trailer number. (if applicable)	<i>String</i>	202
<b>StateLegislativeUpper:</b> Returns Upper Legislative District that address belongs to.	<i>String</i>	014
<b>StateLegislativeLower:</b> Returns Lower Legislative District that address belongs to.	<i>String</i>	090

▼ **AdvancedStandardization**

-This operation is called by all advanced address checking operations, and allows for a deeper interface with address correction.

**Input:** Use any advanced address checking operations.

<b>Operation: AdvancedCheckAddress Output</b>		
Parameter Name	Data Type	Sample Output
<b>ServiceError:</b> Returns true or false if an internal error with service.	<i>Boolean</i>	False
<b>AddressError:</b> Returns true or false if an error processing address.	<i>Boolean</i>	False
<b>AddressFoundBeMoreSpecific:</b> Returns true if address needs more information.	<i>Boolean</i>	False
<b>CheckDigit:</b> Returns digit used in PostNet Barcode.	<i>String</i>	7
<b>NeedCorrection:</b> Returns true or false if address needed correction.	<i>Boolean</i>	True

<b>FromLongitude:</b> Returns 'from' longitude.	<i>String</i>	-76.228684
<b>FromLatitude:</b> Returns 'from' latitude.	<i>String</i>	36.794340
<b>ToLongitude:</b> Returns 'to' longitude.	<i>String</i>	-76.229660
<b>ToLatitude:</b> Returns 'to' latitude.	<i>String</i>	36.798348
<b>AvgLongitude:</b> Average longitude position for address.	<i>String</i>	
<b>AvgLatitude:</b> Average latitude position for address.	<i>String</i>	
<b>hasDaylightSavings:</b> Returns true or false if address location has Daylight Savings.	<i>Boolean</i>	
<b>LLCertainty:</b> Returns level certainty of address lat and long. (if available)	<i>String</i>	
<b>CountyNum:</b> Returns County number.	<i>String</i>	0
<b>Firm:</b> Returns building or firm name.	<i>String</i>	BLDG

#### ▼ AlternateCities

Operation: AlternateCities Input		
Parameter Name	Data Type	Sample Input
<b>ZipCode:</b> Input ZIP Code.	<i>String</i>	23320
<b>LicenseKey:</b> See page 1 for more info.	<i>String</i>	F01d89fd-5155-5455-5585-e84ab8de8591

-Returns all possible City names for a ZIP Code as an array.

Operation: AlternateCities Output		
Parameter Name	Data Type	Sample Output
<b>xsd:string</b> Contains possible City name for given ZIP Code.	<i>Array</i>	CHESAPEAKE
<b>xsd:string</b> Contains possible City name for given ZIP Code if more than one is found.	<i>Array</i>	(If Available)

#### ▼ BarcodeFontURL

**Input:** No input needed; call this method to return URL location to translate barcode font.

Operation: BarcodeFontURL Output		
Parameter Name	Data Type	Sample Output
<b>String xmlns&gt;</b> Returns	<i>String</i>	<a href="http://www.cdyne.com/files/PSbarcode.zip">http://www.cdyne.com/files/PSbarcode.zip</a>

URL to translate barcode font.		
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▼ CalculateDistanceInMiles

Operation: CalculateDistanceInMiles Input		
Parameter Name	Data Type	Sample Input
<b>Latitude1:</b> Input first latitude.	<i>Double</i>	36.794340
<b>Longitude1:</b> Input first longitude.	<i>Double</i>	-76.228684
<b>Latitude2:</b> Input second latitude.	<i>Double</i>	36.798348
<b>Longitude2:</b> Input second longitude.	<i>Double</i>	-76.229660

Operation: CalculateDistanceInMiles Output		
Parameter Name	Data Type	Sample Output
<b>Double xmlns:</b> Returns distance in miles.	<i>Double</i>	<b>0.28214134583144529</b>

▼ CheckAddress

- Returns only one match.

Operation: CheckAddress Input		
Parameter Name	Data Type	Sample Input
<b>AddressLine:</b> Input address number and street name.	<i>String</i>	2125 Smith Ave
<b>ZipCode:</b> Input ZIP Code.	<i>String</i>	23320
<b>City:</b> Input City name.	<i>String</i>	Chesapeake
<b>StateAbbrev:</b> Input State abbreviation.	<i>String</i>	VA
<b>LicenseKey:</b> See page 1 for more info.	<i>String</i>	F01d89fd-5155-5455-5585-e84ab8de8591

Operation: CheckAddress Output		
Parameter Name	Data Type	Sample Output
<b>ServiceError:</b> Returns true or false if internal error with service.	<i>Boolean</i>	False
<b>AddressError:</b> Returns true or false if an error processing address.	<i>Boolean</i>	False
<b>AddressFoundBeMoreSpecific:</b> Returns true if address needs more information.	<i>Boolean</i>	False

<b>CheckDigit:</b> Returns digit used in PostNet Barcode.	<i>String</i>	7
<b>NeedCorrection:</b> Returns true or false if address needed correction.	<i>Boolean</i>	True
<b>FromLongitude:</b> Returns 'from' longitude.	<i>String</i>	-76.228684
<b>FromLatitude:</b> Returns 'from' latitude.	<i>String</i>	36.794340
<b>ToLongitude:</b> Returns 'to' longitude.	<i>String</i>	-76.229660
<b>ToLatitude:</b> Returns 'to' latitude.	<i>String</i>	36.798348
<b>AvgLongitude:</b> Average longitude position for address.	<i>String</i>	
<b>AvgLatitude:</b> Average latitude position for address.	<i>String</i>	
<b>hasDaylightSavings:</b> Returns true or false if address location has Daylight Savings.	<i>Boolean</i>	
<b>LLCertainty:</b> Returns certainty of address lat and long. (if available)	<i>String</i>	
<b>CountyNum:</b> Returns County number.	<i>String</i>	0
<b>Firm:</b> Returns building or firm name.	<i>String</i>	BLDG
<b>DeliveryAddress:</b> Returns corrected delivery address.	<i>String</i>	2125 SMITH AVE STE 202
<b>DeliveryAddress2:</b> Returns secondary delivery address. (if applicable)	<i>String</i>	
<b>PrimaryLow:</b> Returns low-end address of range of addresses.	<i>String</i>	2125
<b>PrimaryHigh:</b> Returns high-end address of range of addresses.	<i>String</i>	2125
<b>PriEO:</b> Returns code identifying if Post Office considers address even, odd or both. Odd (O), even (E), or both (B).	<i>String</i>	B
<b>SecEO:</b> Returns code for secondary address being odd (O), even (E), or both (B).	<i>String</i>	
<b>SecondaryLow:</b> Returns secondary low-end address of range of addresses.	<i>String</i>	
<b>SecondaryHigh:</b> Returns secondary high-end address of range of addresses.	<i>String</i>	
<b>Secondary:</b> Returns abbreviation for	<i>String</i>	STE

apartment, suite, or trailer number. (if applicable)		
<b>Extra:</b> Returns any extra information provided in input not needed for address correction. Ex: ATTN:	<i>String</i>	
<b>City:</b> Returns City.	<i>String</i>	CHESAPEAKE
<b>StateAbbrev:</b> Returns State abbreviation.	<i>String</i>	VA
<b>ZipCode:</b> Returns ZIP Code. ( <b>Not certified as deliverable if +4 not returned</b> )	<i>String</i>	23320-2518
<b>CarrierRoute:</b> Returns Carrier Route ID.	<i>String</i>	C006
<b>County:</b> Returns County name.	<i>String</i>	CHESAPEAKE CITY
<b>DeliveryPoint:</b> Returns Delivery Point.	<i>String</i>	52
<b>BarCode:</b> Returns Address Bar Code.	<i>String</i>	f233202518527f
<b>CSKey:</b> Returns City State Key.	<i>String</i>	0
<b>UpdateKey:</b> Returns internal variable that can be used if any problems with address. (if available)	<i>String</i>	
<b>RecordTypeCode:</b> F=Firm, G=General Delivery, H=High-Rise, P=P.O. Box, R=Rural Route/Highway Contract, S= Street.	<i>String</i>	H
<b>CongressDistrictNumber:</b> Returns Congress District Number.	<i>String</i>	4
<b>FIPS:</b> Returns Federal Information Processing Standard Code.	<i>String</i>	51550
<b>FinanceNumber:</b> Returns USPS Finance Number.	<i>String</i>	
<b>CMSA:</b> Returns US Census Consolidated Metropolitan Statistical Area.	<i>String</i>	5720
<b>PMSA:</b> Returns US Census Primary Metropolitan Statistical Area.	<i>String</i>	
<b>MSA:</b> Returns US Census Metropolitan Statistical Area.	<i>String</i>	5720
<b>MA:</b> Returns Metropolitan Area.	<i>String</i>	572
<b>TimeZone:</b> Returns Time Zone for area.	<i>String</i>	EST
<b>AreaCode:</b> Returns Area Code.	<i>String</i>	757
<b>PreferredCityName:</b> Returns preferred City name.	<i>String</i>	CHESAPEAKE
<b>CensusBlockNum:</b> Returns Census	<i>String</i>	4001

Block Number.		
<b>CensusTractNum:</b> Returns Census Tract Number.	<i>String</i>	0208.01
<b>Primary:</b> Returns primary street house number.	<i>String</i>	2125
<b>PrefixDirection:</b> Returns direction designation. Ex: N, S, E, W. (if available)	<i>String</i>	
<b>StreetName:</b> Returns street name.	<i>String</i>	SMITH
<b>Suffix:</b> Returns address component. Ex: AVE, LN, DRIVE.	<i>String</i>	AVE
<b>PostDirection:</b> Returns direction designation (after suffix). Ex: N, S, E, W. (if available)	<i>String</i>	
<b>SecondaryNumber:</b> Returns number indicating suite, apartment, or trailer number. (if applicable)	<i>String</i>	202
<b>StateLegislativeUpper:</b> Returns Upper Legislative District that address belongs to.	<i>String</i>	014
<b>StateLegislativeLower:</b> Returns Lower Legislative District that address belongs to.	<i>String</i>	090

▼ **CheckAddressW2lines**

- Returns only one possible match.

Operation: CheckAddressW2lines Input		
Parameter Name	Data Type	Sample Input
<b>AddressLine:</b> Input address number and street name.	<i>String</i>	2125 Smith Ave
<b>AddressLine2:</b> Input secondary line information.	<i>String</i>	Suite 202
<b>ZipCode:</b> Input ZIP Code.	<i>String</i>	23320
<b>City:</b> Input City name.	<i>String</i>	Chesapeake
<b>StateAbbrev:</b> Input State abbreviation.	<i>String</i>	VA
<b>LicenseKey:</b> See page 1 for more info.	<i>String</i>	F01d89fd-5155-5455-5585-e84ab8de8591

Operation: CheckAddressW2lines Output		
Parameter Name	Data Type	Sample Output
<b>ServiceError:</b> Returns true or false if	<i>Boolean</i>	False

an internal error with service.		
<b>AddressError:</b> Returns true or false if an error processing address.	<i>Boolean</i>	False
<b>AddressFoundBeMoreSpecific:</b> Returns true if address needs more information.	<i>Boolean</i>	False
<b>CheckDigit:</b> Returns digit used in PostNet Barcode.	<i>String</i>	7
<b>NeedCorrection:</b> Returns true or false if address needed correction.	<i>Boolean</i>	True
<b>FromLongitude:</b> Returns 'from' longitude.	<i>String</i>	-76.228684
<b>FromLatitude:</b> Returns 'from' latitude.	<i>String</i>	36.794340
<b>ToLongitude:</b> Returns 'to' longitude.	<i>String</i>	-76.229660
<b>ToLatitude:</b> Returns 'to' latitude.	<i>String</i>	36.798348
<b>AvgLongitude:</b> Average longitude position for address.	<i>String</i>	
<b>AvgLatitude:</b> Average latitude position for address.	<i>String</i>	
<b>hasDaylightSavings:</b> Returns true or false if address location has Daylight Savings.	<i>Boolean</i>	
<b>LLCertainty:</b> Returns certainty of address lat and long. (if available)	<i>String</i>	
<b>CountyNum:</b> Returns County number.	<i>String</i>	0
<b>Firm:</b> Returns building or firm name.	<i>String</i>	BLDG
<b>DeliveryAddress:</b> Returns corrected delivery address.	<i>String</i>	2125 SMITH AVE STE 202
<b>DeliveryAddress2:</b> Returns secondary delivery address. (if applicable)	<i>String</i>	
<b>PrimaryLow:</b> Returns low-end address of range of addresses.	<i>String</i>	2125
<b>PrimaryHigh:</b> Returns high-end address of range of addresses.	<i>String</i>	2125
<b>PriEO:</b> Returns code that identifies side of street address is on. Odd (O), even (E), or both (B).	<i>String</i>	B
<b>SecEO:</b> Returns code for secondary address being odd (O), even (E), or both (B).	<i>String</i>	
<b>SecondaryLow:</b> Returns secondary low-end address of range of	<i>String</i>	

addresses.		
<b>SecondaryHigh:</b> Returns secondary high-end address of range of addresses.	<i>String</i>	
<b>Secondary:</b> Returns abbreviation for apartment, suite, or trailer number. (if applicable)	<i>String</i>	STE
<b>Extra:</b> Returns any extra information provided in input not needed for address correction. Ex: ATTN:	<i>String</i>	
<b>City:</b> Returns City.	<i>String</i>	CHESAPEAKE
<b>StateAbbrev:</b> Returns State abbreviation.	<i>String</i>	VA
<b>ZipCode:</b> Returns ZIP Code. ( <b>Not certified as deliverable if +4 not returned</b> )	<i>String</i>	23320-2518
<b>CarrierRoute:</b> Returns Carrier Route ID.	<i>String</i>	C006
<b>County:</b> Returns County name.	<i>String</i>	CHESAPEAKE CITY
<b>DeliveryPoint:</b> Returns Delivery Point Number.	<i>String</i>	52
<b>BarCode:</b> Returns Address Bar Code.	<i>String</i>	f233202518527f
<b>CSKey:</b> Returns City State Key.	<i>String</i>	0
<b>UpdateKey:</b> Returns internal variable that can be used if any problems with address. (if available)	<i>String</i>	
<b>RecordTypeCode:</b> F=Firm, G=General Delivery, H=High-Rise, P=P.O. Box, R=Rural Route/Highway Contract, S= Street.	<i>String</i>	H
<b>CongressDistrictNumber:</b> Returns Congress District Number.	<i>String</i>	4
<b>FIPS:</b> Returns Federal Information Processing Standard Code.	<i>String</i>	51550
<b>FinanceNumber:</b> Returns USPS Finance Number.	<i>String</i>	
<b>CMSA:</b> Returns US Census Consolidated Metropolitan Statistical Area.	<i>String</i>	5720
<b>PMSA:</b> Returns US Census Primary Metropolitan Statistical Area.	<i>String</i>	
<b>MSA:</b> Returns US Census Metropolitan Statistical Area.	<i>String</i>	5720
<b>MA:</b> Returns Metropolitan Area.	<i>String</i>	572
<b>TimeZone:</b> Returns Time Zone for	<i>String</i>	EST

area.		
<b>AreaCode:</b> Returns Area Code.	<i>String</i>	757
<b>PreferredCityName:</b> Returns preferred City name.	<i>String</i>	CHESAPEAKE
<b>CensusBlockNum:</b> Returns Census Block Number.	<i>String</i>	4001
<b>CensusTractNum:</b> Returns Census Tract Number.	<i>String</i>	0208.01
<b>Primary:</b> Returns primary street house number.	<i>String</i>	2125
<b>PrefixDirection:</b> Returns direction designation. Ex: N, S, E, W. (if available)	<i>String</i>	
<b>StreetName:</b> Returns street name.	<i>String</i>	SMITH
<b>Suffix:</b> Returns address component. Ex: AVE, LN, DRIVE.	<i>String</i>	AVE
<b>PostDirection:</b> Returns direction designation (after suffix). Ex: N, S, E, W. (if available)	<i>String</i>	
<b>SecondaryNumber:</b> Returns number indicating suite, apartment, or trailer number. (if applicable)	<i>String</i>	202
<b>StateLegislativeUpper:</b> Returns Upper Legislative District that address belongs to.	<i>String</i>	014
<b>StateLegislativeLower:</b> Returns Lower Legislative District that address belongs to.	<i>String</i>	090

▼ **CityStateToZipCodeMatcher**

-Returns all possible ZIP Codes for a City/State combination.

**Must put true or false in IgnoreBadCitySpelling.**

<b>Operation: CityStateToZipCodeMatcher Input</b>		
Parameter Name	Data Type	Sample Input
<b>City:</b> Input City name.	<i>String</i>	Chesapeake
<b>StateAbbrev:</b> Input State abbreviation.	<i>String</i>	VA
<b>IgnoreBadCitySpelling:</b> Input true or false to ignore bad spelling.	<i>Boolean</i>	False
<b>LicenseKey:</b> See page 1 for more info.	<i>String</i>	F01d89fd-5155-5455-5585-e84ab8de8591

Operation: CityStateToZipCodeMatcher Output		
Parameter Name	Data Type	Sample Output
<b>Xsd:int:</b> Returns possible ZIP Code for City/State combination.	<i>Integer</i>	23320
<b>Xsd:int:</b> Returns possible ZIP Code for City/State combination.	<i>Integer</i>	23321
<b>Xsd:int:</b> Returns possible ZIP Code for City/State combination.	<i>Integer</i>	23322
<b>Xsd:int:</b> Returns possible ZIP Code for City/State combination.	<i>Integer</i>	23323
<b>Xsd:int:</b> Returns possible ZIP Code for City/State combination.	<i>Integer</i>	23324
<b>Xsd:int:</b> Returns possible ZIP Code for City/State combination.	<i>Integer</i>	23325
<b>Xsd:int:</b> Returns possible ZIP Code for City/State combination.	<i>Integer</i>	23326
<b>Xsd:int:</b> Returns possible ZIP Code for City/State combination.	<i>Integer</i>	23327
<b>Xsd:int:</b> Returns possible ZIP Code for City/State combination.	<i>Integer</i>	23328

▼ **GetCongressionalDistrictByZip**

-Returns a Congressional District by Zip Code.

Operation: GetCongressionalDistrictByZip Input		
Parameter Name	Data Type	Sample Input
<b>ZipCode:</b> Input ZIP Code.	<i>String</i>	23320
<b>LicenseKey:</b> See page 1 for more info.	<i>String</i>	F01d89fd-5155-5455-5585-e84ab8de8591

Operation: GetCongressionalDistrictByZip Output		
Parameter Name	Data Type	Sample Output
<b>string:</b> Returns Congressional District.	<i>String</i>	04

▼ **ReturnCityState**

-Checks a ZIP Code and returns City, State, Latitude, Longitude, and more.

Operation: ReturnCityState Input		
Parameter Name	Data Type	Sample Input
<b>ZipCode:</b> Input ZIP Code.	<i>String</i>	23320
<b>LicenseKey:</b> See page 1 for more info.	<i>String</i>	F01d89fd-5155-5455-5585-e84ab8de8591

Operation: ReturnCityState Output		
Parameter Name	Data Type	Sample Output
<b>ServiceError:</b> Returns true or false if an internal error with service.	<i>Boolean</i>	False
<b>AddressError:</b> Returns true or false if an error processing address.	<i>Boolean</i>	False
<b>AddressFoundBeMoreSpecific:</b> Returns true if address needs more information.	<i>Boolean</i>	False
<b>CheckDigit:</b> Returns digit used in PostNet Barcode.	<i>String</i>	0
<b>NeedCorrection:</b> Returns true or false if address needed correction.	<i>Boolean</i>	false
<b>FromLongitude:</b> Returns 'from' longitude.	<i>String</i>	-76.294362
<b>FromLatitude:</b> Returns 'from' latitude.	<i>String</i>	36.721448
<b>ToLongitude:</b> Returns 'to' longitude.	<i>String</i>	-76.229660
<b>ToLatitude:</b> Returns 'to' latitude.	<i>String</i>	36.798348
<b>AvgLongitude:</b> Average longitude position for address.	<i>String</i>	-76.2187595
<b>AvgLatitude:</b> Average latitude position for address.	<i>String</i>	36.765798
<b>hasDaylightSavings:</b> Returns true or false if address location has Daylight Savings.	<i>Boolean</i>	true
<b>LLCertainty:</b> Returns certainty of address lat and long. (if available)	<i>String</i>	90
<b>CountyNum:</b> Returns County number.	<i>String</i>	550
<b>Firm:</b> Returns building or firm name.	<i>String</i>	
<b>DeliveryAddress:</b> Returns corrected delivery address.	<i>String</i>	
<b>DeliveryAddress2:</b> Returns secondary delivery address. (if applicable)	<i>String</i>	
<b>PrimaryLow:</b> Returns low-end address of range of addresses.	<i>String</i>	
<b>PrimaryHigh:</b> Returns high-end address of range of addresses.	<i>String</i>	
<b>PriEO:</b> Returns code that identifies side of street address is on. Odd (O), even (E), or both (B).	<i>String</i>	B

<b>SecEO:</b> Returns code for secondary address being odd (O), even (E), or both (B).	<i>String</i>	
<b>SecondaryLow:</b> Returns secondary low-end address of range of addresses.	<i>String</i>	
<b>SecondaryHigh:</b> Returns secondary high-end address of range of addresses.	<i>String</i>	
<b>Secondary:</b> Returns abbreviation for apartment, suite, or trailer number. (if applicable)	<i>String</i>	
<b>Extra:</b> Returns any extra information provided in input not needed for address correction. Ex: ATTN:	<i>String</i>	
<b>City:</b> Returns City.	<i>String</i>	CHESAPEAKE
<b>StateAbbrev:</b> Returns State abbreviation.	<i>String</i>	VA
<b>ZipCode:</b> Returns ZIP Code. ( <b>Not certified as deliverable if +4 not returned</b> )	<i>String</i>	23320
<b>CarrierRoute:</b> Returns Carrier Route ID.	<i>String</i>	
<b>County:</b> Returns County name.	<i>String</i>	CHESAPEAKE CITY
<b>DeliveryPoint:</b> Returns Delivery Point Number.	<i>String</i>	
<b>BarCode:</b> Returns Address Bar Code.	<i>String</i>	
<b>CSKey:</b> Returns City State Key.	<i>String</i>	0
<b>UpdateKey:</b> Returns internal variable that can be used if any problems with address. (if available)	<i>String</i>	
<b>RecordTypeCode:</b> F=Firm, G=General Delivery, H=High-rise, P=P.O. Box, R=Rural Route/Highway Contract, S= Street.	<i>String</i>	
<b>CongressDistrictNumber:</b> Returns Congress District Number.	<i>String</i>	
<b>FIPS:</b> Returns Federal Information Processing Standard Code.	<i>String</i>	51550
<b>FinanceNumber:</b> Returns USPS Finance Number.	<i>String</i>	
<b>CMSA:</b> Returns US Census Consolidated Metropolitan Statistical Area.	<i>String</i>	5720
<b>PMSA:</b> Returns US Census Primary	<i>String</i>	

Metropolitan Statistical Area.		
<b>MSA:</b> Returns US Census Metropolitan Statistical Area.	<i>String</i>	5720
<b>MA:</b> Returns Metropolitan Area.	<i>String</i>	572
<b>TimeZone:</b> Returns Time Zone for area.	<i>String</i>	EST
<b>AreaCode:</b> Returns Area Code.	<i>String</i>	757
<b>PreferredCityName:</b> Returns preferred City name.	<i>String</i>	CHESAPEAKE
<b>CensusBlockNum:</b> Returns Census Block Number.	<i>String</i>	4010
<b>CensusTractNum:</b> Returns Census Tract Number.	<i>String</i>	0210.05
<b>Primary:</b> Returns Primary Street house Number.	<i>String</i>	
<b>PrefixDirection:</b> Returns direction designation. Ex: N, S, E, W. (if available)	<i>String</i>	
<b>StreetName:</b> Returns street name.	<i>String</i>	
<b>Suffix:</b> Returns address component. Ex: AVE, LN, DRIVE.	<i>String</i>	
<b>PostDirection:</b> Returns direction designation (after suffix). Ex: N, S, E, W. (if available)	<i>String</i>	
<b>SecondaryNumber:</b> Returns number indicating suite, apartment, or trailer number. (if applicable)	<i>String</i>	
<b>StateLegislativeUpper:</b> Returns Upper Legislative District that address belongs to.	<i>String</i>	
<b>StateLegislativeLower:</b> Returns Lower Legislative District that address belongs to.	<i>String</i>	

▼ **StandardizedAddress**

-Called by all standard Address Routines.

<b>Operation: StandardizedAddress Input</b>		
Parameter Name	Data Type	Sample Input
<b>AddressLine:</b> Input address number and street name.	<i>String</i>	2125 Smith Ave
<b>ZipCode:</b> Input ZIP Code.	<i>String</i>	23320
<b>City:</b> Input City name.	<i>String</i>	Chesapeake
<b>StateAbbrev:</b> Input State	<i>String</i>	VA

abbreviation.		
<b>LicenseKey:</b> See page 1 for more info.	<i>String</i>	F01d89fd-5155-5455-5585-e84ab8de8591

<b>Operation: StandardizedAddress Output</b>		
Parameter Name	Data Type	Sample Output
<b>ServiceError:</b> Returns true or false if an internal error with the service.	<i>Boolean</i>	False
<b>AddressError:</b> Returns true or false if an error processing address.	<i>Boolean</i>	False
<b>AddressFoundBeMoreSpecific:</b> Returns true if address needs more information.	<i>Boolean</i>	False
<b>CheckDigit:</b> Returns digit used in PostNet Barcode.	<i>String</i>	7
<b>NeedCorrection:</b> Returns true or false if address needed correction.	<i>Boolean</i>	True
<b>FromLongitude:</b> Returns 'from' longitude.	<i>String</i>	-76.228684
<b>FromLatitude:</b> Returns 'from' latitude.	<i>String</i>	36.794340
<b>ToLongitude:</b> Returns 'to' longitude.	<i>String</i>	-76.229660
<b>ToLatitude:</b> Returns 'to' latitude.	<i>String</i>	36.798348
<b>AvgLongitude:</b> Average longitude position for address.	<i>String</i>	
<b>AvgLatitude:</b> Average latitude position for address.	<i>String</i>	
<b>hasDaylightSavings:</b> Returns true or false if address location has Daylight Savings.	<i>Boolean</i>	
<b>LLCertainty:</b> Returns certainty of address lat and long. (if available)	<i>Boolean</i>	
<b>CountyNum:</b> Returns County number.	<i>String</i>	0
<b>Firm:</b> Returns building or firm name.	<i>String</i>	BLDG
<b>DeliveryAddress:</b> Returns corrected delivery address.	<i>String</i>	2125 SMITH AVE STE 202
<b>DeliveryAddress2:</b> Returns secondary delivery address if applicable.	<i>String</i>	
<b>PrimaryLow:</b> Returns low-end address of range of addresses.	<i>String</i>	2125
<b>PrimaryHigh:</b> Returns high-end address of range of addresses.	<i>String</i>	2125

<b>PriEO:</b> Returns code that identifies side of street address is on. Odd (O), even (E), or both (B).	<i>String</i>	B
<b>SecEO:</b> Returns code for secondary address being odd (O), even (E), or both (B).	<i>String</i>	
<b>SecondaryLow:</b> Returns secondary low-end address of range of addresses.	<i>String</i>	
<b>SecondaryHigh:</b> Returns secondary high-end address of range of addresses.	<i>String</i>	
<b>Secondary:</b> Returns abbreviation for apartment, suite, or trailer number. (if applicable)	<i>String</i>	STE
<b>Extra:</b> Returns any extra information provided in input not needed for address correction. Ex: ATTN:	<i>String</i>	
<b>City:</b> Returns City.	<i>String</i>	CHESAPEAKE
<b>StateAbbrev:</b> Returns State abbreviation.	<i>String</i>	VA
<b>ZipCode:</b> Returns ZIP Code. ( <b>Not certified as deliverable if +4 not returned</b> )	<i>String</i>	23320-2518
<b>CarrierRoute:</b> Returns Carrier Route ID.	<i>String</i>	C006
<b>County:</b> Returns County name.	<i>String</i>	CHESAPEAKE CITY
<b>DeliveryPoint:</b> Returns Delivery Point Number.	<i>String</i>	52
<b>BarCode:</b> Returns Address Bar Code.	<i>String</i>	f233202518527f
<b>CSKey:</b> Returns City State Key.	<i>String</i>	0
<b>UpdateKey:</b> Returns internal variable that can be used if any problems with address. (if available)	<i>String</i>	
<b>RecordTypeCode:</b> F=Firm, G=General Delivery, H=High-rise, P=P.O. Box, R=Rural Route/Highway Contract, S= Street.	<i>String</i>	H
<b>CongressDistrictNumber:</b> Returns Congress District Number.	<i>String</i>	4
<b>FIPS:</b> Returns Federal Information Processing Standard Code.	<i>String</i>	51550
<b>FinanceNumber:</b> Returns USPS Finance Number.	<i>String</i>	
<b>CMSA:</b> Returns US Census	<i>String</i>	5720

Consolidated Metropolitan Statistical Area.		
<b>PMSA:</b> Returns US Census Primary Metropolitan Statistical Area.	<i>String</i>	
<b>MSA:</b> Returns US Census Metropolitan Statistical Area.	<i>String</i>	5720
<b>MA:</b> Returns Metropolitan Area.	<i>String</i>	572
<b>TimeZone:</b> Returns Time Zone for area.	<i>String</i>	EST
<b>AreaCode:</b> Returns Area Code.	<i>String</i>	757
<b>PreferredCityName:</b> Returns preferred City name.	<i>String</i>	CHESAPEAKE
<b>CensusBlockNum:</b> Returns Census Block Number.	<i>String</i>	4001
<b>CensusTractNum:</b> Returns Census Tract Number.	<i>String</i>	0208.01
<b>Primary:</b> Returns primary street house number.	<i>String</i>	2125
<b>PrefixDirection:</b> Returns direction designation. Ex: N, S, E, W. (if available)	<i>String</i>	
<b>StreetName:</b> Returns street name.	<i>String</i>	SMITH
<b>Suffix:</b> Returns address component. Ex: AVE, LN, DRIVE.	<i>String</i>	AVE
<b>PostDirection:</b> Returns direction designation (after suffix). Ex: N, S, E, W. (if available)	<i>String</i>	
<b>SecondaryNumber:</b> Returns number indicating suite, apartment, or trailer number. (if applicable)	<i>String</i>	202
<b>StateLegislativeUpper:</b> Returns Upper Legislative District that address belongs to.	<i>String</i>	014
<b>StateLegislativeLower:</b> Returns Lower Legislative District that address belongs to.	<i>String</i>	090

▼ **VersionInformation**

-Returns the latest version information.

Operation: VersionInformation Output		
Parameter Name	Data Type	Sample Output
<b>String:</b> Returns version information.	<i>String</i>	4.6.406

<b>String:</b> Returns version information.	<i>String</i>	Version 4.6.346
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