



Informatica® Address Verification

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Migration Guide

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Preface

The *Informatica Address Verification Migration Guide* is written for developers who are migrating Informatica Address Verification Web Service 4 implementations to Informatica Address Verification. This guide provides information about the key differences between the parameters and address assessment codes supported by Informatica Address Verification Web Service 4 and Informatica Address Verification.

The *Informatica Address Verification Migration Guide* assumes that you are familiar with the Informatica Address Verification Web Service 4 parameters and have a working knowledge of Informatica Address Verification. Read this guide in conjunction with the *Informatica Address Verification Developer Guide*.

Informatica Resources

Informatica My Support Portal

As an Informatica customer, the first step in reaching out to Informatica is through the Informatica My Support Portal at <https://mysupport.informatica.com>. The My Support Portal is the largest online data integration collaboration platform with over 100,000 Informatica customers and partners worldwide.

As a member, you can:

- Access all of your Informatica resources in one place.
- Review your support cases.
- Search the Knowledge Base, find product documentation, access how-to documents, and watch support videos.
- Find your local Informatica User Group Network and collaborate with your peers.

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- Search the Knowledge Base, find product documentation, access how-to documents, and watch support videos.
- Find your local Informatica User Group Network and collaborate with your peers.

Informatica Documentation

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The Documentation team updates documentation as needed. To get the latest documentation for your product, navigate to Product Documentation from <https://mysupport.informatica.com>.

Informatica Product Availability Matrixes

Product Availability Matrixes (PAMs) indicate the versions of operating systems, databases, and other types of data sources and targets that a product release supports. You can access the PAMs on the Informatica My Support Portal at <https://mysupport.informatica.com>.

Informatica Web Site

You can access the Informatica corporate web site at <https://www.informatica.com>. The site contains information about Informatica, its background, upcoming events, and sales offices. You will also find product and partner information. The services area of the site includes important information about technical support, training and education, and implementation services.

Informatica How-To Library

As an Informatica customer, you can access the Informatica How-To Library at <https://mysupport.informatica.com>. The How-To Library is a collection of resources to help you learn more about Informatica products and features. It includes articles and interactive demonstrations that provide solutions to common problems, compare features and behaviors, and guide you through performing specific real-world tasks.

Informatica Knowledge Base

As an Informatica customer, you can access the Informatica Knowledge Base at <https://mysupport.informatica.com>. Use the Knowledge Base to search for documented solutions to known technical issues about Informatica products. You can also find answers to frequently asked questions, technical white papers, and technical tips. If you have questions, comments, or ideas about the Knowledge Base, contact the Informatica Knowledge Base team through email at KB_Feedback@informatica.com.

Informatica Support YouTube Channel

You can access the Informatica Support YouTube channel at <http://www.youtube.com/user/INFASupport>. The Informatica Support YouTube channel includes videos about solutions that guide you through performing specific tasks. If you have questions, comments, or ideas about the Informatica Support YouTube channel, contact the Support YouTube team through email at supportvideos@informatica.com or send a tweet to @INFASupport.

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CHAPTER 1

Overview

This chapter includes the following topics:

- [Informatica Address Verification Overview, 9](#)
- [Key Differences Between Address Verification Web Services 4 and Address Verification, 9](#)

Informatica Address Verification Overview

Informatica Address Verification is an online address validation solution that you can use to verify and validate international postal addresses in real time. Address Verification is a SOAP-based solution that runs on top of the latest Address Verification software and the most up-to-date reference address databases.

You can integrate Address Verification with CRM systems, e-commerce sites, or other cloud- or web-based solutions to verify and validate addresses. You can access Address Verification over Secure Sockets Layer (SSL) connections. To access Address Verification, you need an Address Verification Data Quality Center (DQC) user account with sufficient valid transactions.

A new version number in the Address Verification interface indicates a new Address Verification interface. For example, the current Informatica Address Verification URL contains the version number V3. To access the latest Address Verification features, ensure that your SOAP calls point to the latest Address Verification URL.

If you do not want to upgrade an Address Verification implementation, you can continue to access the previous versions until the time Address Verification supports the version. For more details about versions that Address Verification supports, contact an Address Verification sales representative.

Key Differences Between Address Verification Web Services 4 and Address Verification

Informatica Address Verification replaces Informatica Address Verification Web Service 4, a Cloud-based address validation solution. Informatica Address Verification enhances and adds to the Informatica Address Verification Web Service 4 features and capabilities and provides better user experience.

There are some changes in Informatica Address Verification interface and parameters. You need to implement these changes to migrate an Informatica Address Verification Web Service 4 setup to an Informatica Address Verification setup.

One Interface

Informatica Address Verification combines all process modes of Informatica Address Verification Web Service 4 into a single SOAP interface. This simplifies the implementation of Informatica Address Verification as there is only one interface instead of the three different interfaces, Batch, Interactive, and Fast Completion, in Informatica Address Verification Web Service 4. In Informatica Address Verification, you can set the `ProcessMode` parameter to specify the process mode.

In Informatica Address Verification, you can implement new features without changing the Web Services Description Language (WSDL) file. For example, Web Service 4 defined enumerators for all parameters. Adding more options to Informatica Address Verification Web Service meant modifications to the interface. Informatica Address Verification defines the parameter names and uses plain string values for the parameters. In this way new values can be added to existing parameters without changing the interface.

The extensibility and flexibility of Informatica Address Verification help you access the latest features without having to change the interface. When changes to the interface do become necessary, the Informatica Address Verification URL is updated to specify the interface version.

For example, you can access the Informatica Address Verification Version 3 interface from the following URL: <https://validator5.AddressDoctor.com/Webservice5/v3/...>

Note that the URL uses **v3** to indicate that the URL points to version 3 of the interface.

List of Parameters Changed, Deprecated, or Modified in Informatica Address Verification

The following table lists the Informatica Address Verification Web Service 4 parameters that are changed, deprecated, or modified and the corresponding parameters in Informatica Address Verification:

Informatica Address Verification Web Service 4	Informatica Address Verification
Address elements	Address elements.string
DeliveryAddressLines	DeliveryAddressLines.string
FormattedAddress	FormattedAddress.string
CountrySpecificLocalityLine	CountrySpecificLocalityLine.string
CountryOfOrigin	CountryOfOriginISO3
StreetWithHNo	StreetWithNumber
LineSeparator	FormatDelimiter
PreferredLanguage	PreferredLanguage and PreferredScript
Capitalization	GlobalCasing
FormattedAddressWithOrganization	FormatType.WITH_ORGANIZATION
ParsedInput	Deprecated
RemoveDiacritics	PreferredLanguage.ASCII_SIMPLIFIED
FieldDimensions	Standardizations

Informatica Address Verification Web Service 4	Informatica Address Verification
AddressCount	Deprecated
Addresses	addresses

Additional Assessment Codes for Improved Process Status Reporting

Informatica Address Verification introduces new address assessment codes and process status codes to provide detailed information about address validation results.

Informatica Address Verification introduces the following changes to address assessment codes and process status codes:

- Additional process status codes to provide specific information about validation results.
- Refined element input status codes in the place of element match result codes in Web Service 4.
- Improved element result status values.
- Extended element result status codes.
- Address resolution codes.

CHAPTER 2

Changed and Deprecated Parameters

This chapter includes the following topics:

- [Changed and Deprecated Parameters Overview, 12](#)
- [String Element, 13](#)
- [CountryOfOrigin, 15](#)
- [StreetWithHNo, 16](#)
- [LineSeparator, 16](#)
- [PreferredLanguage, 17](#)
- [Capitalization, 18](#)
- [FormattedAddressWithOrganization, 19](#)
- [RemoveDiacritics, 19](#)
- [FieldDimensions, 19](#)
- [Addresses, 20](#)
- [Deprecated Parameters, 21](#)

Changed and Deprecated Parameters Overview

Informatica Address Verification introduces new parameters and options to replace some of the Informatica Address Verification Web Service 4 (Web Service 4) parameters and options.

To migrate an Informatica Address Verification Web Service 4 setup to Informatica Address Verification setup, you must modify the SOAP request to use the latest URL, remove the deprecated parameters, and replace the obsolete parameters with the corresponding Informatica Address Verification parameters.

If you include an Informatica Address Verification Web Service 4 parameter that has been replaced or deprecated in an Informatica Address Verification request, one of the following error conditions occurs:

- Informatica Address Verification rejects the request and returns a **W7** process status code.
- Informatica Address Verification fails to recognize the address in the request and returns an error message that prompts you to input the `addresses` parameter.

- Informatica Address Verification ignores the changed or deprecated validation parameters in the request and processes the request using the default values for the corresponding parameters in Address Verification.

String Element

In Informatica Address Verification, you can enter address elements as arrays. To support arrays for address elements, Informatica Address Verification introduces a `<string>` element under address elements, such as `<Building>`, `<SubBuilding>`, and `<Locality>`, and address line elements, such as `<DeliveryAddressLines>`, `<FormattedAddress>`, and `<CountrySpecificLocalityLine>`.

You can enter multiple lines to an address element as strings. You can also enter multiple address elements within a `<string>` element by separating the address elements with the delimiter that you configured for the `FormatDelimiter` parameter.

Address Element Configuration in Web Service 4

The following example shows an address element configuration in Informatica Address Verification Web Service 4:

```
<Address>
  <Locality>EBBW VALE;Nantyglo</Locality>
  <PostalCode>NP23 4PD</PostalCode>
  <Province>Gwent</Province>
  <Country>GBR</Country>
  <DeliveryAddressLines>23 BEACON VIEW</DeliveryAddressLines>
</Address>
```

Address Element Configuration in Address Verification

The following example shows an address element configuration in Informatica Address Verification:

```
<Address>
  <Country>
    <string>GBR</string>
  </Country>
  <Locality>
    <string>EBBW VALE</string>
    <string>Nantyglo</string>
  </Locality>
  <PostalCode>
    <string>NP23 4PD</string>
  </PostalCode>
  <DeliveryAddressLines>
    <string>23 BEACON VIEW</string>
  </DeliveryAddressLines>
</Address>
```

DeliveryAddressLines Configuration in Web Service 4

The following example shows a `DeliveryAddressLines` configuration in Informatica Address Verification Web Service 4:

```
<DeliveryAddressLines>1401 Elmstreet </DeliveryAddressLines>
<DeliveryAddressLines>2nd Floor</DeliveryAddressLines>
<DeliveryAddressLines>11th App.</DeliveryAddressLines>
```

DeliveryAddressLines Configuration in Address Verification

The following example shows a DeliveryAddressLines configuration in Informatica Address Verification:

```
<DeliveryAddressLines>
  <string>1401 Elmstreet</string>
  <string>2nd Floor</string>
  <string>11th App.</string>
</DeliveryAddressLines>
```

FormattedAddress Configuration in Web Service 4 with <LineSeparator> Set to LST_SEMICOLON

The following example shows a FormattedAddress configuration in Informatica Address Verification Web Service 4 when the LineSeparator parameter is set to semicolon:

```
<FormattedAddress>Röntgenstrasse 9;Maxdorf</FormattedAddress>
```

FormattedAddress Configuration in Address Verification with <FormatDelimiter> Set to SEMICOLON

The following example shows a FormattedAddress configuration in Informatica Address Verification when the FormatDelimiter parameter, which is the Address Verification equivalent of the LineSeparator parameter, is set to semicolon:

```
<FormattedAddress>
  <string>Röntgenstrasse 9;Maxdorf</string>
</FormattedAddress>
```

FormattedAddress Configuration in Web Service 4 with <LineSeparator> Set to LST_LF

The following example shows a FormattedAddress configuration in Informatica Web Service 4 when the LineSeparator parameter is set to line feed:

```
<FormattedAddress>Röntgenstrasse 9</FormattedAddress>
<FormattedAddress>67133 Maxdorf</FormattedAddress>
<FormattedAddress>Bundesrepublik Deutschland</FormattedAddress>
```

FormattedAddress Configuration in Informatica Address Verification with <FormatDelimiter> Set to LF

The following example shows a FormattedAddress configuration in Informatica Address Verification when the FormatDelimiter parameter, which is the Address Verification equivalent of the LineSeparator parameter, is set to line feed:

```
<FormattedAddress>
  <string>Röntgenstrasse 9</string>
  <string>67133 Maxdorf</string>
  <string>Bundesrepublik Deutschland</string>
</FormattedAddress>
```

CountrySpecificLocalityLine Configuration in Web Service 4

The following example shows a CountrySpecificLocalityLine configuration in Informatica Address Verification Web Service 4:

```
<CountrySpecificLocalityLine>USA</CountrySpecificLocalityLine>
<CountrySpecificLocalityLine>CA</CountrySpecificLocalityLine>
```

CountrySpecificLocalityLine Configuration in Informatica Address Verification

The following example shows a CountrySpecificLocalityLine configuration in Informatica Address Verification:

```
<CountrySpecificLocalityLine>
  <string>USA</string>
  <string>CA</string>
</CountrySpecificLocalityLine>
```

CountryOfOrigin

In Informatica Address Verification, `FormatWithCountry` and the `CountryOfOriginISO3` parameters replace the `CountryOfOrigin` parameter in Informatica Address Verification Web Service 4.

If you set the `FormatWithCountry` parameter to true or 1, Informatica Address Verification includes the country information in the result output.

If you set the `CountryOfOriginISO3` parameter, Informatica Address Verification does not include the country information in the result output for addresses that belong to the country specified for `CountryOfOriginISO3`.

For example, if you set `FormatWithCountry` to true or 1 and `CountryOfOriginISO3` to USA, Informatica Address Verification does not include the country information in the result output for the United States addresses. However, Informatica Address Verification includes country information for addresses from other countries.

Note: In Informatica Address Verification Web Service 4, `CountryOfOrigin` was a mandatory parameter. In Informatica Address Verification, `FormatWithCountry` and `CountryOfOriginISO3` are optional parameters.

Web Service 4 Configuration to Include the Country Name in the Result Output

```
<CountryOfOrigin>COO_ALWAYS_USE_DESTINATION_COUNTRY</CountryOfOrigin>
```

Informatica Address Verification Configuration to Include the Country Name in the Result Output

```
<FormatWithCountry>1</FormatWithCountry>
```

Alternatively, you can set the `FormatWithCountry` parameter to true. For example:

```
<FormatWithCountry>true</FormatWithCountry>
```

Web Service 4 Configuration to Exclude the Country Name from the Result Output

```
<CountryOfOrigin>COO_NEVER_USE_DESTINATION_COUNTRY</CountryOfOrigin>
```

Informatica Address Verification Configuration to Exclude Country Name from the Result Output

```
<FormatWithCountry>0</FormatWithCountry>
```

Alternatively, you can set the `FormatWithCountry` parameter to false. For example:

```
<FormatWithCountry>false</FormatWithCountry>
```

Web Service 4 Configuration to Exclude the Country of Origin Name from the Result Output

```
<CountryOfOrigin>COO_ISO3</CountryOfOrigin>
```

For example, the following setting configures Informatica Address Verification to omit the country information from USA addresses:

```
<CountryOfOrigin>COO_USA</CountryOfOrigin>
```

Informatica Address Verification Configuration to Exclude the Country of Origin Name from the Result Output

```
<FormatWithCountry>true</FormatWithCountry>
<CountryOfOriginISO3>ISO3</CountryOfOriginISO3>
```

For example, the following configuration adds the country information to addresses from countries other than the United States.

```
<FormatWithCountry>true</FormatWithCountry>
<CountryOfOriginISO3>USA</CountryOfOriginISO3>
```

StreetWithHNo

In Informatica Address Verification the `StreetWithNumber` parameter replaces the `StreetWithHNo` parameter in Informatica Address Verification Web Service 4.

If you set the `StreetWithNumber` parameter to true or 1, Informatica Address Verification returns the house number along with the Street name in the Street field.

Web Service 4 Configuration to Include House Number in the Street Field

```
<StreetWithHNo>true</StreetWithHNo>
```

Informatica Address Verification Configuration to Include House Number in the Street Field

```
<StreetWithNumber>1</StreetWithNumber>
```

Alternatively, you can set the `StreetWithNumber` parameter to true. For example:

```
<StreetWithNumber>true</StreetWithNumber>
```

Web Service 4 Configuration to Exclude House Number from the Street Field

```
<StreetWithHNo>false</StreetWithHNo>
```

Informatica Address Verification Configuration to Exclude House Number from the Street Field

```
<StreetWithNumber>0</StreetWithNumber>
```

Alternatively, you can set the `StreetWithNumber` parameter to false. For example:

```
<StreetWithNumber>false</StreetWithNumber>
```

LineSeparator

In Informatica Address Verification, the `FormatDelimiter` parameter replaces the `LineSeparator` parameter in Informatica Address Verification Web Service 4.

The `FormatDelimiter` parameter specifies the separator between address elements when multiple address elements are included in the same line as part of `FormattedAddress`, `DeliveryAddressLines`, or `AddressComplete` elements.

The following table shows the `LineSeparator` parameter and its values in Informatica Address Verification Web Service 4 and the corresponding parameter, `FormatDelimiter`, and its values in Informatica Address Verification:

Informatica Address Verification Web Service 4	Informatica Address Verification
LineSeparator	FormatDelimiter
LineSeparator.LST_LF	FormatDelimiter.LF
LineSeparator.LST_SEMICOLON	FormatDelimiter.SEMICOLON
LineSeparator.LST_COMMA	FormatDelimiter.COMMA
LineSeparator.LST_TAB	FormatDelimiter.TAB
LineSeparator.LST_NO_SEPERATOR	FormatDelimiter.SPACE

Web Service 4 Configuration to Specify Line Feed as LineSeparator

```
<LineSeparator>LST_LF</LineSeparator>
```

Address Verification Configuration to Specify Line Feed as FormatDelimiter

```
<FormatDelimiter>LF</FormatDelimiter>
```

PreferredLanguage

In Informatica Address Verification, a combination of the `PreferredScript` and `PreferredLanguage` parameters replaces the `PreferredLanguage` parameter in Informatica Address Verification Web Service 4.

The `PreferredScript` parameter specifies the character set that Informatica Address Verification uses to return the result output. The `PreferredLanguage` parameter specifies the language in which Informatica Address Verification returns the result output.

The following table shows the `PreferredLanguage` parameter and its values in Informatica Address Verification Web Service 4 and the corresponding parameters and values in Informatica Address Verification:

Informatica Address Verification Web Service 4	Informatica Address Verification
<code>PreferredLanguage.DATABASE</code>	<code>PreferredScript.DATABASE</code>
<code>PreferredLanguage.PREF_BY_POSTAL_ADMIN</code>	<code>PreferredScript.POSTAL_ADMIN_PREF</code>
<code>PreferredLanguage.PRIMARY</code>	<code>PreferredScript.POSTAL_ADMIN_PREF</code>
<code>PreferredLanguage.SECONDARY</code>	<code>PreferredScript.POSTAL_ADMIN_ALT</code>
<code>PreferredLanguage.LATIN</code>	<code>PreferredScript.LATIN_1</code>
<code>PreferredLanguage.ENGLISH</code>	PreferredLanguage.ENGLISH with one of the following options: <ul style="list-style-type: none">- <code>PreferredScript.LATIN</code>- <code>PreferredScript.LATIN_1</code>- <code>PreferredScript.LATIN_ALT</code>- <code>PreferredScript.ASCII_EXTENDED</code>- <code>PreferredScript.ASCII_SIMPLIFIED</code>

Informatica Address Verification also introduces the following additional parameters and options:

- `PreferredScript.PRESERVE_INPUT`
- `PreferredLanguage.PRESERVE_INPUT`
- `PreferredLanguage.DATABASE`
- `PreferredLanguage.ALTERNATIVE_1`
- `PreferredLanguage.ALTERNATIVE_2`
- `PreferredLanguage.ALTERNATIVE_3`

Belgium Address Output in Different Languages

The following examples show different results for a Belgium address when you set different values for `PreferredLanguage`.

Input Address

The input address is in Flemish, which is one of the official languages in Belgium.

```
Koningsstraat 15  
1000 Brussel  
BEL
```

PreferredLanguage.DATABASE

When the `PreferredLanguage` parameter is set to `DATABASE`, Informatica Address Verification returns the result in French because the reference address database for Belgium is in French.

```
Rue Royale 15  
1000 Bruxelles  
BEL
```

PreferredLanguage.PRESERVE_INPUT

When the `PreferredLanguage` parameter is set to `PRESERVE_INPUT`, Informatica Address Verification returns the results in Flemish, the language used for the input.

```
Koningsstraat 15  
1000 Brussel  
BEL
```

Capitalization

In Informatica Address Verification, the `GlobalCasing` parameter replaces the `Capitalization` parameter in Informatica Address Verification Web Service 4.

You can configure the `GlobalCasing` parameter to specify the casing for address elements in Informatica Address Verification

The following table lists the `Capitalization` parameter and its options and the corresponding parameter, `GlobalCasing`, and its options in Informatica Address Verification:

Informatica Address Verification Web Service 4	Informatica Address Verification
Capitalization	GlobalCasing
Capitalization.NO_CHANGE	GlobalCasing.NATIVE
Capitalization.UPPER_CASE	GlobalCasing.UPPER
Capitalization.LOWER_CASE	GlobalCasing.LOWER
Capitalization.MIXED_CASE	GlobalCasing.MIXED

Web Service 4 Configuration to Request Output in Upper Case Characters

```
<Capitalization>UPPER_CASE</Capitalization>
```

Informatica Address Verification Configuration to Request Output in Upper Case Characters

```
<GlobalCasing>UPPER</GlobalCasing>
```

FormattedAddressWithOrganization

In Informatica Address Verification, the `WITH_ORGANIZATION` option for the `FormatType` parameter replaces the `FormattedAddressWithOrganization` parameter in Informatica Address Verification Web Service 4.

Web Service 4 Configuration to Include Organization Information in FormattedAddress

```
<FormattedAddressWithOrganization>true</FormattedAddressWithOrganization>
```

Address Verification Configuration to Include Organization Information in FormattedAddress

```
<FormatType>WITH_ORGANIZATION</FormatType>
```

RemoveDiacritics

In Informatica Address Verification, the `ASCII_SIMPLIFIED` option of the `PreferredScript` parameter replaces the `RemoveDiacritics` parameter in Informatica Address Verification Web Service 4.

To replace diacritical characters such as ä, é or ß with regular characters in the result output, set the `PreferredScript` parameter to `ASCII_SIMPLIFIED`.

Web Service 4 Configuration to Remove Diacritic Characters

```
<RemoveDiacritics>true</RemoveDiacritics>
```

Address Verification Configuration to Remove Diacritic Characters

```
<PreferredScript>ASCII_SIMPLIFIED</PreferredScript>
```

FieldDimensions

In Informatica Address Verification, the `Standardization` parameter replaces the `FieldDimensions` parameter in Informatica Address Verification Web Service 4.

You can configure the `Standardizations` parameter to specify `MaxLength`, `MaxItemCount`, and `Casing` for each address element.

The following table lists the attributes of the `FieldDimensions` parameter in Web Service 4 and their equivalents in Informatica Address Verification:

Informatica Address Verification Web Service 4	Informatica Address Verification
<code>FieldDimensions</code>	<code>Standardizations</code>
<code>FieldDimensions. ElementName</code>	<code>Standardizations.Element.string</code>
<code>FieldDimensions. ElementName.MaxLines</code>	<code>Standardizations.MaxItemCount</code>
<code>FieldDimensions. ElementName.MaxLineLength</code>	<code>Standardizations.MaxLength</code>

Informatica Address Verification also introduces a `Casing` attribute to the `Standardizations` parameter. You can set the `Casing` attribute to specify the casing for address elements.

Web Service 4 Configuration to Set Field Dimensions for the Building Element

```
<FieldDimensions>
  <Building>
    <MaxLines>20</MaxLines>
    <MaxLineLength>50</MaxLineLength>
  </Building>
</FieldDimensions>
```

Informatica Address Verification Configuration to Standardize the Building Element

```
<Standardizations>
  <Element>Building</Element>
  <Casing>MIXED</Casing>
  <MaxLength>50</MaxLength>
  <MaxItemCount>20</MaxItemCount>
</Standardizations>
```

Note: The Casing setting at an address element level overrides the `GlobalCasing` setting.

If you do not want to specify maximum length at the element level, you can configure the `GlobalMaxLength` parameter.

Addresses

The `Addresses` parameter in Informatica Address Verification Web Service 4 has been replaced with the `addresses` parameter, with a lower case **a** instead of the upper case **A**, in Informatica Address Verification.

Entering Multiple Addresses for Batch Processing in Web Service 4

```
<Addresses>
  <Address>
    <Locality>Maxdorf</Locality>
    <PostalCode>67133</PostalCode>
    <Country>Germany</Country>
    <DeliveryAddressLines>Röntgenstr. 9</DeliveryAddressLines>
  </Address>
  <Address>
    <Locality>CARY</Locality>
    <PostalCode>27513</PostalCode>
    <Province>NC</Province>
    <Country>United States</Country>
    <DeliveryAddressLines>15501 WESTON PARKWAY</DeliveryAddressLines>
  </Address>
</Addresses>
```

Entering Multiple Addresses for Batch Processing in Address Verification

```
<addresses>
  <Address>
    <FormattedAddress>
      <string>Röntgenstr. 9</string>
      <string>67133 Maxdorf</string>
      <string>Germany</string>
    </FormattedAddress>
  </Address>
  <Address>
    <FormattedAddress>
      <string>15501 Weston Parkway</string>
      <string>27513 Cary</string>
      <string>NC</string>
      <string>UNITED STATES</string>
    </FormattedAddress>
  </Address>
</addresses>
```

Deprecated Parameters

The following Informatica Address Verification Web Service 4 parameters are deprecated in Informatica Address Verification:

- AddressCount
- ParsedInput

CHAPTER 3

Address Assessment Codes

This chapter includes the following topics:

- [Address Assessment Codes Overview, 22](#)
- [Process Status Codes, 22](#)
- [Element Match Status and Element Input Status, 24](#)
- [Element Result Status, 25](#)
- [Extended Element Result Status Values, 26](#)
- [Address Resolution Codes, 27](#)

Address Assessment Codes Overview

Informatica Address Verification improves the address element assessment and address validation process status reporting to include additional, granular assessment codes that describe the validation status at each element level.

Informatica Address Verification provides additional process status codes, element input status codes instead of element match status codes in Informatica Address Verification Web Service 4 (Web Service 4), and improved element result status values. Informatica Address Verification also provides additional information in the form of extended element result status and address resolution codes.

Process Status Codes

Informatica Address Verification returns status codes that provide precise information about the process status of an address.

For example, Informatica Address Verification returns four specific codes, V1, V2, V3, and V4 instead of the V validation status code in Informatica Address Verification Web Service 4. The new codes provide granular descriptions of the validation status instead of a generic Verified represented by V in Web Service 4.

The following table contains the process status codes that are changed between Informatica Address Verification Web Service 4 and Informatica Address Verification:

Web Service 4 Codes	Address Verification Codes	Descriptions for Address Verification Codes
V	V4	Verified. The input data is correct. All postally relevant elements have been checked, and the input matched perfectly.
V	V3	Verified. The input data is correct, but some or all elements were standardized, or the input contains outdated names or exonyms.
V	V2	Verified. The input data is correct, but some elements cannot be verified because of incomplete reference data.
V	V1	Verified. The input data is correct, but user standardization has introduced errors. For example, the post code length is too short.
C	C4	Corrected. All postally relevant elements are checked and corrected.
C	C3	Corrected. Some elements such as SubBuilding information or House Number cannot be checked.
C	C2	Corrected. Some critical elements such as Street cannot be checked.
C	C1	Corrected, but user standardization has introduced errors.
P3	I4	Data cannot be corrected completely, but there is a single match with an address in the reference data. For example, HNO is wrong but only one HNO is found in the reference data. Note that when you validate addresses in the interactive mode, you receive suggestions for I4 addresses.
P3	I3	Data cannot be corrected completely, and there are multiple matches with addresses in the reference data. For example, HNO is wrong but more than one HNO is found in reference data. Note that when you validate addresses in the interactive mode, you receive suggestions for I3 addresses.
P2	I2	Data cannot be corrected. Batch mode returns partial address suggestions. Note that when you validate addresses in the interactive mode, you receive suggestions for I2 addresses.
P1	I1	Data cannot be corrected. No suggestions available.
Q3	Q3	Suggestions include one or more complete addresses from the address reference data that correspond to the input address.
Q2	Q2	Suggestions include complete addresses that are combinations of the input address elements and elements from the address reference data.
Q1	Q1	Suggestions do not contain complete addresses. To generate a complete address suggestion, add data to the input address.

Apart from the process status codes explained in the preceding table, Informatica Address Verification introduces the following process status codes:

W1

Not allowed. No transactions available for the country.

W7

Input error. Informatica Address Verification rejected the Parameters or Input Data.

W8

Time out. Address was not processed.

W9

Error. Address was not processed.

For a complete list of process status codes, see the Informatica Address Verification Developer Guide.

Element Match Status and Element Input Status

Informatica Address Verification provides Element Input Status values instead of the Element Match Status values in Informatica Address Verification Web Service 4. The Element Input Status values in Informatica Address Verification provides more detailed and specific information about address elements.

The following table describes the Element Match Status codes in Informatica Address Verification Web Service 4 and the corresponding Element Input Status codes in Informatica Address Verification:

Web Service 4 Element Match Status	Address Verification Element Input Status	Descriptions for Element Input Status in Informatica Address Verification
0	0	The input address contains no data at this position.
1	1	The data at this position cannot be found in the reference data.
2	2	The position cannot be checked because reference data is missing.
2	3	The data is incorrect. The Number or DeliveryService value might be outside the range expected by the reference data. In batch and certified modes, the input data at this position is passed uncorrected as output. In suggestion list modes, Informatica Address Verification can provide alternatives.
3	4	The data at this position matches the reference data, but with errors.
3	5	The data at this position matches the reference data, but the data element was corrected or standardized.
4	6	The data at this position matches the reference data without any error.

Element Result Status

Informatica Address Verification provides more granular values for Element Result Status codes to help you understand and analyze the address validation results better.

The following table describes the Element Result Status codes in Informatica Address Verification Web Service 4 and their equivalents in Informatica Address Verification:

Web Service 4 Element Result Status	Address Verification Element Result Status	Descriptions for Element Result Status Values in Address Verification
0	0	The output address contains no data at this position.
0	6	Data validation deleted the input value at this position.
1	1	The data at this position cannot be found in the reference data. The input data is copied to the output data.
1	3	Data at this position is checked but does not match the expected reference data. The number data might be outside the valid range. The input data is copied to the output. The status value applies in batch mode only.
1	4	Data at this position is copied from the input because the corresponding reference data is not available.
1	5	Data at this position is validated but not changed because multiple matches exist in the reference data. The status value applies in batch mode only.
2	2	Data at this position is not checked but is standardized.
3	7	Data at this position is validated but contained a spelling error. Validation corrected the error by copying the value from the reference data.
3	8	Data at this position is validated and updated by adding a value from the reference data. It can also mean that the reference database contains additional data for the input element. For example, validation can add a building or subbuilding number if a perfect match is found for the street name or building name.
3	9	Data at this position is validated but not changed, and the delivery status is not clear. For example, the input contains house number 9a. The reference address database contains house number 9 or a house number range that includes 9. It is possible to have 9a in the range, but that cannot be confirmed.
4	C	Data at this position is validated and verified, but the name data is out of date. Validation changed the name data.
4	D	Data at this position is validated and verified but changed from an exonym to an official name.

Web Service 4 Element Result Status	Address Verification Element Result Status	Descriptions for Element Result Status Values in Address Verification
4, 5	E	Data at this position is validated and verified. However, data validation standardized the character case or the language. Address validation can change the language if the value fully matches a language alternative. For example, address validation can change "Brussels" to "Bruxelles" in a Belgian address.
6	F	Data at this position is validated, verified, and not changed, due to a perfect match with reference data.

Note: Informatica Address Verification does not support the element result status value of 7. An element result status value of 7 in Informatica Address Verification Web Service 4 indicated that no result was returned for the element because of multiple matches.

Extended Element Result Status Values

The following table describes the extended element result status values that are introduced in Informatica Address Verification:

Extended Element Result Status	Description
1	Data available for the element in the database, but not used for validation.
2	Element unchecked, but changed because of wrong syntax or format.
3	Numeric in element correct, but element changed because of wrong syntax or descriptor.
4	Element correct or unchecked, but moved because of wrong format.
5	Alternative available in database. For example, language, preferred locality name, alias name.
6	Unvalidated parts inside element like additional information.
7	Level change like moving HN01 to HN02 or swapping Locality2 with Locality1.
8	Type change for fielded input only; for example, moving SubBuilding to Building Level 2.
9	General Postal Authority Rule.
A	Dominant match for dual address processing.
B	Relevance is only a country-wide default and cannot be trusted.
C	Fast Completion Overflow.
D	Numeric for range expansion; interpolated.

Extended Element Result Status	Description
E	Language not available for the country, database language returned.
F	Output address is outdated.

Address Resolution Codes

The following table describes the address resolution codes that are introduced in Informatica Address Verification:

Address Resolution Code	Description
2	Missing element in address.
3	Numeric provided in the element is outside the permissible range. For example, wrong numeric inside street name or house number; 100 Main St when house numbers range from 400-800.
4	Multiple inputs for the element.
5	Input element is ambiguous or has multiple matches.
6	Element contradicts other elements. For example, the postal code information and locality information do not match.
7	3 strike rule; too many corrections in combination of several elements.
8	General Postal Authority Rule.