

## Address Verification Best Practices for Turkey

## Abstract

This document tells you how to connect the elements in a Turkey address to the appropriate address elements in Informatica Address Verification. This document also describes best practices that you can implement when you verify addresses in Turkey.

## Supported Versions

- Informatica Address Verification 3.0 and 4.0
- Informatica Address Verification (On-Premises) 5.x

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## Introduction

Informatica Address Verification can validate and enhance addresses from Turkey. This how-to article provides you with configuration information and best practices that you can follow to get the most from the addresses. The best practices include advice on how to select the appropriate XML elements for Turkey address data.

To verify the quality of an input address, Address Verification compares the address to the data in one or more reference data files. Address Verification parses information from the input address. You can configure the input address to identify the different types of address information in the input data.

When you select the input address elements, you must ensure that the elements are correct for the different types of input information. The country that the address identifies can determine the elements that you need.

An address in Turkey can contain different types of information, including dependent street information and secondary locality information. You must map each item of address information to an appropriate element in Address Verification.

## Process Modes

Informatica Address Verification supports the following process modes for Turkey addresses:

- BATCH
- COUNTRY RECOGNITION

- FAST COMPLETION
- INTERACTIVE
- PARSE

Address Verification verifies addresses in batch, fast completion, and interactive modes.

## Language and Character Set

Turkey reference address databases store address data in the Latin script. By default, Informatica Address Verification returns the verified Turkey addresses in the Latin script.

The default character set for Turkey addresses is Latin.

## Address Format and Structure in Turkey

You improve the performance of Address Verification when you define the input address in the format that the postal service expects.

The Turkish postal service recognizes the following structure for a postal address:

```
Line 1: Recipient
Line 2: Neighbourhood
Line 3: Street Name Street Type [Dependent Street Name Street Type] [Building Name] [Building
Number] House Number [/Apartment]
Line 4: Postal Code [Administrative District /] Locality / Province
```

**Note:** Elements in parentheses are optional.

The following table shows the address lines with sample data from a Turkey address:

Address Elements	Example
Recipient	MEHMET DEMIR
Neighbourhood	AKŞEMSETTİN MAH.
Street Name, Street Type, and House Number	GÖKHAN SOK. NO. 1
Postal Code, Locality, and Province	06934 SİNCAN / ANKARA

The sample address has the following format on an envelope or label:

```
MEHMET DEMIR
AKŞEMSETTİN MAH.
GÖKHAN SOK. NO. 1
06934 SİNCAN / ANKARA
TURKEY
```

## Key Address Elements

Address Verification is unlikely to verify an address successfully if one of the following items is absent from the address:

- Neighbourhood or Village
- Street
- Main City

- Province
- Postal Code

## Mapping Input Address Data to Address Elements

To verify an address, map the input address data elements to the appropriate elements in Address Verification.

The following table shows how the input address data maps to the Address Verification address elements:

Address Elements	Address Information	Information Type
Recipient	MEHMET DEMIR	Recipient
Street	GÖKHAN SOK.	Street Name and Street Type
House Number	NO. 1	House Number
Locality_1	SİNCAN	City or Major Town
Locality_2	[Not used in this address]	Town or Administrative District
Locality_3	AKŞEMSETTİN MAH.	Mahalle, District, or Village
Postal Code	06934	Postal Code
Province	ANKARA	Province

The following example shows how to map the input address elements within Address Verification (On-Premises).

You enter the following input address:

```
<InputData>
  <AddressElements>
    <Country Item="1" Type="NAME">TURKEY</Country>
    <Street Item="1">GÖKHAN SOK.</Street>
    <Number Item="1">NO. 1</Number>
    <Locality Item="1" Type="COMPLETE">SİNCAN</Locality>
    <Locality Item="3">AKŞEMSETTİN MAH.</Locality>
    <PostalCode Item="1" Type="UNFORMATTED">06934</PostalCode>
    <Province Item="1">ANKARA</Province>
  </AddressElements>
</InputData>
```

Informatica Address Verification (On-Premises) returns the following result:

```
<?xml version="1.0" encoding="UTF-16"?>
<!-- EngineVersion="5.10.0.40146" -->
<Result ProcessStatus="V2"
  ModeUsed="BATCH"
  Count="1"
  CountOverflow="NO"
  CountryISO3="TUR"
  PreferredScript="DATABASE"
  PreferredLanguage="DATABASE">
<ResultData ResultNumber="1"
  MailabilityScore="4"
  ResultPercentage="100.00"
  ElementResultStatus="F0FFF0F0400000000E0"
  ElementInputStatus="6066606020000000060"
```

```

AddressResolutionCode="00000000000000000000"
ExtElementStatus="00000000B00000000000"
ElementRelevance="10101010100000000010"
AddressType="S"
LanguageISO3="TUR">
<AddressElements>
  <Country Type="NAME_EN" Item="1">TURKEY</Country>
  <Locality Item="1">SINCAN</Locality>
  <Locality Item="3">AKSEMSETTİN MAH.</Locality>
  <PostalCode Item="1">06934</PostalCode>
  <Province Item="1">ANKARA</Province>
  <Street Item="1">GÖKHAN SOK.</Street>
  <Number Item="1">NO. 1</Number>
</AddressElements>
<AddressLines>
<DeliveryAddressLine Line="1">AKSEMSETTİN MAH.</DeliveryAddressLine>
<DeliveryAddressLine Line="2">GÖKHAN SOK. NO. 1</DeliveryAddressLine>
<CountrySpecificLocalityLine Line="1">06934 SINCAN/ANKARA</CountrySpecificLocalityLine>
<FormattedAddressLine Line="1">AKSEMSETTİN MAH.</FormattedAddressLine>
<FormattedAddressLine Line="2">GÖKHAN SOK. NO. 1</FormattedAddressLine>
<FormattedAddressLine Line="3">06934 SINCAN/ANKARA</FormattedAddressLine>
<FormattedAddressLine Line="4">TURKEY</FormattedAddressLine>
</AddressLines>
<AddressComplete>Aksemsettin Mah.
Gökhan Sok. NO. 1
06934 Sincan/Ankara
TURKEY</AddressComplete>
  <EnrichmentData
    GeoCodingStatus="EGCN"
    CAMEOStatus="ECON"
    CASSStatus="ECA0"
    SERPStatus="ESE0"
    SNASStatus="ESN0"
    AMASStatus="EAM0"
    SendRightStatus="ESR0"
    SupplementaryGBStatus="EGB0"
    SupplementaryJPStatus="EJP0"
    SupplementaryRSStatus="ERS0"
    SupplementaryBRStatus="EBR0"
    SupplementaryDEStatus="EDE0"
    SupplementaryZAStatus="EZA0"
    SupplementaryCHStatus="ECH0"
    SupplementaryATStatus="EAT0"
    SupplementaryPLStatus="EPL0"
    SupplementaryFRStatus="EFR0"
    SupplementaryBEStatus="EBE0"
    SupplementaryRUStatus="ERU0"
    SupplementaryUSStatus="EUS0"
    SupplementaryKRStatus="EKR0"
    SupplementaryITStatus="EIT0"
    SupplementaryESStatus="EES0"
    SupplementaryCZStatus="ECZ0">
      <GeoCoding Type="COMPLETE"></GeoCoding>
      <GeoCoding Type="LATITUDE"></GeoCoding>
      <GeoCoding Type="LONGITUDE"></GeoCoding>
      <GeoCoding Type="LAT_LONG_UNIT"></GeoCoding>
      <CAMEO Type="CATEGORY"></CAMEO>
      <CAMEO Type="INTERNATIONAL"></CAMEO>
      <CAMEO Type="GROUP"></CAMEO>
      <CAMEO Type="MVID"></CAMEO>
      <CAMEO Type="CATEGORY_DESCRIPTION"></CAMEO>
      <CAMEO Type="GROUP_DESCRIPTION"></CAMEO>
      <CAMEO Type="INTERNATIONAL_DESCRIPTION"></CAMEO>
    </EnrichmentData>
</ResultData>
</Result>

```

The following example shows how to verify a Turkey address by using SOAP call to Address Verification.

You submit the following request:

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope" xmlns="http://
validator5.AddressDoctor.com/Webservice5/v4">
  <soap:Header/>
  <soap:Body>
    <Process>
      <!--Optional:-->
      <login>****</login>
      <!--Optional:-->
      <password>*****</password>
      <!--Optional:-->
      <parameters>
        <ProcessMode>BATCH</ProcessMode>
      </parameters>
      <addresses>
        <Address>
          <Street>
            <string>GÖKHAN SOK</string>
          </Street>
          <HouseNumber>
            <string>NO. 1</string>
          </HouseNumber>
          <Locality>
            <string>SİNCAN</string>
            <string>AKŞEMSETTİN MAH.</string>
          </Locality>
          <PostalCode>
            <string>06934</string>
          </PostalCode>
          <Province>
            <string>ANKARA</string>
          </Province>
          <Country>
            <string>Turkey</string>
          </Country>
        </Address>
      </addresses>
    </Process>
  </soap:Body>
</soap:Envelope>
```

Informatica Address Verification returns the following response:

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope" xmlns:xsi="http://
www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <ProcessResponse xmlns="http://validator5.AddressDoctor.com/Webservice5/v4">
      <ProcessResult>
        <StatusCode>100</StatusCode>
        <StatusMessage>OK</StatusMessage>
        <Results>
          <Result>
            <ProcessStatus>V2</ProcessStatus>
            <CountryISO3>TUR</CountryISO3>
            <ResultDataSet>
              <ResultData>
                <ResultNumber>1</ResultNumber>
                <MailabilityScore>4</MailabilityScore>
                <ResultPercentage>100.00</ResultPercentage>
                <ElementInputStatus>60666050200000000060</ElementInputStatus>
                <ElementResultStatus>F0FFF0E04000000000E0</ElementResultStatus>
                <ElementRelevance>101010100000000010</ElementRelevance>
                <ExtElementStatus>00070000B00000000000</ExtElementStatus>
                <AddressResolutionCode>000000000000000000</AddressResolutionCode>
                <AddressType>S</AddressType>
                <LanguageISO3>TUR</LanguageISO3>
                <Address>
                  <Street>
                    <string>GÖKHAN SOK.</string>
                  </Street>
                  <HouseNumber>
```

```

        <string>NO. 1</string>
    </HouseNumber>
    <Locality>
        <string>SINCAN</string>
        <string/>
        <string>AKŞEMSETTİN MAH.</string>
    </Locality>
    <PostalCode>
        <string>06934</string>
    </PostalCode>
    <Province>
        <string>ANKARA</string>
    </Province>
    <Country>
        <string>TURKEY</string>
    </Country>
    <DeliveryAddressLines>
        <string>AKŞEMSETTİN MAH.</string>
        <string>GÖKHAN SOK. NO. 1</string>
    </DeliveryAddressLines>
    <CountrySpecificLocalityLine>
        <string>06934 SINCAN/ANKARA</string>
    </CountrySpecificLocalityLine>
    <FormattedAddress>
        <string>AKŞEMSETTİN MAH.</string>
        <string>GÖKHAN SOK. NO. 1</string>
        <string>06934 SINCAN/ANKARA</string>
        <string>TURKEY</string>
    </FormattedAddress>
    <AddressComplete>Akşemsettin Mah.;Gökhan Sok. NO. 1;06934 Sincan/
Ankara;TURKEY</AddressComplete>
    </Address>
</ResultData>
</ResultDataSet>
</Result>
</Results>
</ProcessResult>
</ProcessResponse>
</soap:Body>
</soap:Envelope>

```

**Note:** Address Verification places the Mahalle information "AKŞEMSETTİN MAH." in String\_3 and Address Verification (On-Premises) places the Mahalle information in Locality\_3.

## Address Enrichment

You can configure Informatica Address Verification to add the following enrichment to verified Turkey addresses:

Enrichment	Database	Notes
Standard Geocoding	TUR5GC.MD	Retrieve the standard, interpolated geocoordinates for valid Turkey addresses.

## Address Verification Tips and Best Practices

Turkey addresses might contain some terms in the Turkish language.

The following table lists address element terms in the Turkish language and identifies the corresponding address element terms:

Term	Description
Mahalle	Indicates a sub-locality (Neighbourhood) or a district of a town. You can shorten the element to Mah. or M. Assign to a Locality_3 element.
Köy	Indicates a village. Assign to a Locality_3 element.
Cadde or Sokak	Indicates a street. You can shorten the element Cadde to Cad. or C. You can shorten the element Sokak to Sok., Sk., or S. and write Sok., Sk., or S. as Sokaklar and Sokaklarin. Assign to a Street element.
Bulvar(i)	Indicates Boulevard. You can shorten the element to BLV. Assign to a Street Type element with Street.
Postrestant	Indicates Poste Restante. Assign to a Delivery Service element.
Posta abone Kutusu	Indicates Post Office Box. You can shorten the element to PK. Assign to a Delivery Service element.

## Frequently Asked Questions

### How does Address Verification handle Province information in Turkey?

Turkey contains 81 provinces. Each province contains multiple districts (ilçe). The central district (merkez ilçe) is the administrative capital of a province, and in many cases the central district and the province share the same name. For example, the city of Van is the central district of Van Province. The central district name is Locality\_1 information.

The following provincial capitals do not share the province name:

- Antakya in Hatay province
- Izmit in Kocaeli province

**Note:** Turkey identifies Istanbul and Ankara as provinces. When an address identifies Istanbul or Ankara as the main city, assign the city name to the Province element. Assign the town or administrative city that the address identifies within the city to the Locality\_1 element.

To verify the name of a provincial district, click the following link: <http://postakodu.ptt.gov.tr/>.

### Why is the Locality\_2 information missing for Turkey?

According to the Turkish postal standard, the address does not require Locality\_2 information. The Locality\_3 information does not move to Locality\_2 because the Locality\_3 information identifies the Mahalle or neighborhood.

In Turkey, you must place the Mahalle information above the Street information. You can also enter the Mahalle information on Formatted Address Line 1.



### **Why does Locality\_3 or Mahalle information for Turkey appear on Formatted Address Lines 1?**

The Locality\_3 information appears on the first line for Turkey addresses. According to the Turkish postal standard, the Mahalle information appears on Formatted Address Lines 1. The Universal Postal Union (UPU) maintains a catalog of the postal standards worldwide.

### **To what level can Address Verification verify Turkish addresses?**

Address Verification verifies Turkish addresses up to the Street level.

### **Are geocoordinates available for Turkish addresses?**

Yes, standard or interpolated geocoordinates are available for Turkish address verification. If the standard or interpolated geocoordinates do not exist, Address Verification returns the status code EGC0 to indicate that geocoordinates are unavailable for the given address.

## **Reference Address Databases**

Informatica updates the Turkey reference address databases annually. You can download the latest database packages from the Informatica Database Download portal. For news about reference address databases and software updates for Address Verification, subscribe to the UpData newsletter from Informatica.

Informatica Address Verification provides the following reference databases for Turkey addresses:

- `TUR5BI.MD`. Batch and interactive modes.
- `TUR5FC.MD`. Fast completion mode.
- `TUR5GC.MD`. Standard geocoding.

**Note:** You download databases for Informatica Address Verification (On-Premises). You do not need to download databases for Informatica Address Verification, as Informatica Address Verification runs in the Informatica Cloud.

## **Additional Documentation Resources**

To view the latest documentation for Informatica Address Verification, click the following link:

[https://network.informatica.com/community/informatica-network/products/data\\_quality/address-doctor/](https://network.informatica.com/community/informatica-network/products/data_quality/address-doctor/)

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