



**Extensible Address Language (xAL)  
Standard Description Document for  
W3C DTD/Schema**

**Version 2.0**

(Approved Committee Specification)

*A Standard from the Customer Information Quality Technical Committee*

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## **2.0 Introduction**

Customer (Person or Organisation where, Organisation could be a company, association, club, University, etc) data consists of many components. However, a person or company's name and address is *the key* identifier of a "customer".

Name and address, as a data type, is very difficult to manage. This data is often volatile... customers come and go, addresses change, names change. This data is often cluttered when entered. Name and address fields on data entry screens are usually free format and ripe for users to enter comments without any edits. Name and address is subjective...it can be written in a number of different ways and still be the same. There is no application independent standard to represent name and address data and to measure its quality. This problem is further compounded by the different ethnic backgrounds of name and address data in a global market.

There are, however, a number of name and address standards available throughout the world. To a large extent, these standards have been designed with a particular business requirement in mind, for example, the expedient delivery of a piece of mail. This has generally meant that while the particular standard is appropriate for the purpose for which it was designed, it is frequently not suitable for a variety of other purposes.

### **2.1 extensible Name and Address Language**

With the advent of XML as a defacto standard for representing data, OASIS has developed an application independent XML standard for name and address data management eXtensible Name and Address Language (xNAL). xNAL does not include all the address components throughout the world. But that is where the power of XML comes into play. It is extensively scalable and extendable allowing xNAL to evolve as more additional components are identified.

xNAL is broken into two components namely,

xNL : eXtensible Name Language to describe name components, and  
xAL : eXtensible Address Language to describe address components.

This has been done for maintainability of the DTDs/Schemas.

### **2.2 The Goal of xNAL**

The goal of xNAL is:

- Open
- Vendor Neutral
- Application Independent
- Global, i.e., ability to represent names and addresses of any country irrespective of culture, religion, language and geographic location.

## **3.0 The Objective and Scope**

The objective of this document is to describe the extensible Name Language (xAL) W3C DTD/Schema component of the xNAL Standard in detail with examples.

This document provides a set of simple guidelines to help using xAL and exchange information between different parties with minimum misinterpretation and misuse of the structures.

## **4.0 extensible Address Language (xAL)**

### **4.1 xAL**

The objective of xAL is to describe a common structure for International Addresses to enable any applications that wants to represent addresses in a common standard format. The applications could be CRM/e-CRM, Customer Information Systems, Data Quality (Parsing, Matching, Validation, Verification, etc), Customer Data Warehouses, Postal services, etc.

However, any party for its own purposes and applications may use xAL grammar or parts of it.

It is important to read the following document as a pre-requisite to this document:

- xNAL Specifications Document Version 2.0 for W3C DTD/Schema

### **4.2 The Goal**

The goal of xAL is:

- Open
- Vendor Neutral
- Application Independent
- Global, i.e., ability to represent addresses of any country irrespective of culture, religion, language and geographic location
- Flexible enough to handle simple representation of addresses (Example: Simple user registration system) to complex representation of addresses (Example: address parsing).

### **4.3 The Challenge**

The goal of xAL is to design a standard that can be used represent addresses of any country and at the same time should be open, vendor neutral and application independent. It should come as no surprise that to fit a large number of different Address structures, not just the element names had to be generalized (“AdministrativeArea” for province, state, etc) but also the structure. Some address structured might not be represented in xAL. But that is where the power of XML comes into play. It is extensively scalable and extendable allowing xAL to evolve as more additional components are identified.

The challenge for xAL is to provide the ability to handle the following:

- Addresses of 241+ Countries
- Represented in 5,000+ languages (dialects)
- With about 130+ Address Formats, and at the same time,
- Should be application independent, open and vendor neutral.

### 4.4 Style of Data Model for xAL

Fitting over 200 countries into a unified format is no easy task. Countries have very different address formats. Some use street names for addressing, others don't. Some use island names, others don't. The format must allow for all these different types of addresses while at the same time provide a consistent and easy to use format.

There are different ways to model data, including hierarchical, relational and object-oriented. Address data is hierarchical in nature (Example: a country has cities, a city has streets and a street has premises, a premise has subpremises etc) so a hierarchical model is the most natural fit.

The international standard XML (eXtensible Markup Language) is well suited to represent hierarchical data and has therefore been adopted for the actual implementation of the data model.

### 4.5 What does xAL not represent

xAL only defines the XML vocabulary to represent addresses.

xAL does not:

- define vocabulary for security of the data represented in xAL format
- define vocabulary for transportation of the data represented in xAL format
- define vocabulary for messages associated with the data represented in xAL format
- define vocabulary for privacy and permissioning of the data represented in xAL format
- validate/verify the actual data represented in xAL format
- format addresses.

Address formatting is country specific and is outside the scope of the standards work. Rules on such formatting cannot be derived from the data or the data structure. It is therefore, up to the application to decide how and in which order the contents of xAL should be combined to form a legal address.

## 5.0 Overall Design Goals and Consideration

### 5.1 Flexibility: Re-usable specification with multiple levels of detail

xAL is designed to fit into other XML information structures that need specification of an international address. The specification does allow for address specification at a multitude of detail levels, ranging from a number of unassigned address lines to subdividing elements such as “Street” into composing elements.

This multilevel approach serves two purposes: First, it allows trading partners to choose and agree on the right level of detail for the task. Second, it allows for addresses in different stages of verification or quality levels, from an address of unknown quality just filled in on a web page to a completely verified and decomposed address.

This leads to a distinction: raw-address <-> normal tagged address <-> detailed typed address

It will be impossible to satisfy all, if some would wish to store –for example- a postal code with a city together in one string element, and others see a postal code as an integral part of a street or premise. It will therefore be difficult, if not impossible, to support combined elements in any flavour.

### 5.2 Address Specification Vs. Address Formatting

This specification is designed to describe the address elements, not be specific about the formatting and presentation of the address. However, formatting at the higher –composite- levels is preserved since these are either a single string value or an ordered list of multiple strings. This is only considered a side effect at this time; there is no detailed specification of how to handle and preserve white space in these strings. In the Netherlands for example, it is customary to use double spacing between postal code and town on a single line, but naturally this only works with fixed-width fonts. New lines are made explicit by only defining composite elements at line-level.

## 6.0 Using the xAL DTD/Schema

### 6.1 Purpose of the XML DTD/Schema for Addresses

The XML DTD/Schema for address has been designed to be truly global and application independent and therefore, is designed to be flexible to handle address structures of different applications. For example from a simple user registration system that uses very few address elements (Example: Address lines, area, state, postcode, country) to an address parsing system that needs all the elements of an address (Example: Elements namely, Street type, street number, street number suffix, street name, street direction for a “Street” data) can be defined using this address schema.

### 6.2 Flexibility

There is no necessity to define an address using all the possible tags and therefore, make the definition complex. Flexibility is provided to define an address with the tags that are necessary and are meaningful to the user.

#### 6.2.1 Example

Let us consider the following example that can be represented in some of the different ways to show the flexibility provided by xAL:

**23 Archer Street**  
**Chatswood, NSW 2067**  
**Australia**

##### 6.2.1.1 OPTION I - Crude/Ad hoc Approach

```
<xAL>
  <AddressDetails AddressType="Residential">
    <AddressLines>
      <AddressLine>23 Archer Street</AddressLine>
      <AddressLine>Chatswood, NSW 2067</AddressLine>
      <AddressLine>Australia</AddressLine>
    </AddressLines>
  </AddressDetails>
</xAL>
```

##### 6.2.1.2 OPTION II – Simple Approach

This uses a different address to the sample not level 12 and street name

```
<xAL>
  <AddressDetails AddressType="Residential">
    <Country>
      <AddressLine>Australia</AddressLine>
    <AdministrativeArea>
      <AddressLine>NSW</AddressLine>
    <Locality>
```

```
<AddressLine>Chatswood</AddressLine>
<Thoroughfare>
  <AddressLine>23 Archer Street</AddressLine>
</Thoroughfare>
<PostalCode>
  <AddressLine>2067</AddressLine>
</PostalCode>
</Locality>
</AdministrativeArea>
</Country>
</AddressDetails>
</xAL>
```

### **6.2.1.3 OPTION III - Formal Approach (fits most applications)**

```
<xAL>
  <AddressDetails AddressType="Residential">
    <Country>
      <CountryName>Australia</CountryName>
      <Locality>
        <LocalityName>NSW</LocalityName>
        <DependentLocality>
          <DependentLocalityName>Chatswood</DependentLocalityName>
          <Thoroughfare>
            <ThoroughfareName>23 Archer Street</ThoroughfareName>
          </Thoroughfare>
        </DependentLocality>
        <PostalCode>
          <PostalCodeNumber>2067</PostalCodeNumber>
        </PostalCode>
      </Locality>
    </Country>
  </AddressDetails>
</xAL>
```

### **6.2.1.4 OPTION IV - Detailed Approach**

```
<xAL>
  <AddressDetails AddressType="Residential">
    <Country>
      <CountryName>Australia</CountryName>
      <Locality>
        <LocalityName Type="Abbreviation">NSW</LocalityName>
        <DependentLocality Type="Suburb">
          <DependentLocalityName>Chatswood</DependentLocalityName>
          <Thoroughfare>
            <ThoroughfareNumber>23</ThoroughfareNumber>
            <ThoroughfareName>Archer</ThoroughfareName>
            <ThoroughfareTrailingType>Street</ThoroughfareTrailingType>
          </Thoroughfare>
        </DependentLocality>
        <PostalCode>
          <PostalCodeNumber>2067</PostalCodeNumber>
        </PostalCode>
      </Locality>
    </Country>
  </AddressDetails>
</xAL>
```

```
</Locality>
</Country>
</AddressDetails>
</xAL>
```

### 6.3 Don't get confused – keep it simple

Some users might feel that xAL provides too much information to represent a simple address for their application. This is not true and the example in the previous section confirms this. xAL can be used to define addresses in simple terms or in complex terms. It is up to the user to decide how they want to implement xAL.

**Important:** Use only elements and attributes that make sense to you. Ignore the rest that are needless for you.

Enough flexibility is provided to make the address representation simple without using the detailed level of tags. Most of the elements and attributes are optional.

### 6.4 Namespaces and Versions

xAL Schema's namespace is: Note discussion on version Major and Minor  
**urn:oasis:names:tc:ciq:xdschema:xAL:[major version number]**  
where [major version number] is substituted with a number (e.g. 2.0, 2.5, etc.)

Schemas with different major version numbers are not compatible.

Attribute *version* of Schema's element *schema* indicates minor version number. Schemas with different minor version numbers are backward compatible.

DTD provides an attribute called "Version" that defines the version number of the DTD.

### 6.5 XML Schema: Extensibility

xAL Schema was designed to be extensible.

1. some elements can have any child elements from **##other** namespaces (any that is not xAL namespace)
2. all elements can have any attributes from **##other** namespaces (any that is not xAL namespace)
3. key elements and types are declared globally to be reused by other schemas

### 6.6 XML Schema: Document Fragments

xAL Schema can be used to validate document fragments with globally declared elements as root elements.

## 6.7 Deep Nesting vs. Flat Structure

xAL Schema/DTD allows dual way of reflecting relationships between entities: building a hierarchy or setting a reference. To set a reference, xAL provides a key namely, *AddressDetailsKey*. This key helps to refer to an address already defined rather than nesting the address. This is an option and is not mandatory.

## 6.8 Where to start

Understanding this schema/DTD can be difficult for some users. To make it easier we would suggest you to undertake the following exercises:

- Read this document
- Take a look at the examples of XML documents for xAL
- Take a look at schema/DTD diagrams.
- Try to build the structures you need using the schema/DTD.

The meaning of every element and attribute is described using *annotation/documentation* elements in XML schema.

For full schema description you can either go thru the schema's/DTDs source code or use the detailed description of elements in this document or in the HTML document.

## 6.9 Compatibility between DTD and Schema

Instances of XML documents valid for xAL W3C Schema may not always be valid for xNL DTD and vice-versa, but the structures are almost identical.

## 6.10 Document Exchange between different parties

xAL provides descriptions for every element and attribute, but it is up to the users how they implement it.

If you want to exchange information between different parties make sure that they are compatible:

1. all parties use the same namespace and version
2. all parties use the same interpretation of xAL elements and attributes
3. all parties agree on enumerations and values used to describe types of data (for example element *AddressDetails* has attribute *AddressType* to indicate that the address is a postal, PO Box, Residential type address, which is likely to be a predefined list of values for one party, but not compatible with a corresponding list of another party).

## 7.0 xAL DTD/Schema Grammar

This section describes the xAL Grammar in detail. We have used the DTD version of xAL to generate the diagrams and to explain the grammar. However, note that the structures of DTD and Schema are compatible except for the *##other* element used in the Schema. Moreover, in Schema, structures are defined as elements (local and global), simple type, and complex type or of a particular Type.

For detailed documentation of the XML Schema version of xAL, users are recommended to download the HTML documentation of xAL from <http://www.oasis-open.org/committees/ciq>.

How to read the diagrams in the following sections:

<b>1</b>	:	<b>Either Or</b>
<b>?</b>	:	<b>Optional</b> (0 or more occurrences)
<b>+</b>	:	<b>At least 1</b> (1 or more occurrences)
<b>◆</b>	:	<b>An Element</b>
<b>●</b>	:	<b>An Attribute</b>
	:	<b>Has sub elements</b>

XML Containers consist of sub-XML elements and are not used to tag a piece of data directly. They use their sub-elements to tag the data. XML Elements are used to tag a piece of data directly.

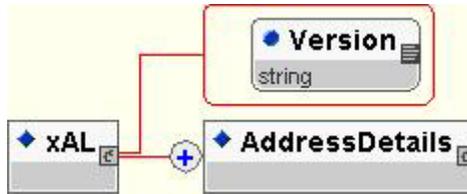
For ease of reading, under XML Elements column in the tables in the following sections, XML Tag names in **bold** are XML Containers (consisting of sub-XML elements), XML Tags in regular text are XML Elements and Tag names in *italics* in the Description column of the tables are Attributes of XML elements. Let us consider the following example:

```
<Name>
  <FirstName Type="Given Name">Ram</FirstName>
  <LastName>Kumar</LastName>
</Name>
```

<**Name**> is the Container, <FirstName> and <LastName> are the XML Elements and *Type* is the Attribute.

In the following sections, we have deliberately used examples of addresses that are represented using xAL at a detailed level. It is emphasised here again that addresses need not be represented at a detailed level. It depends upon the application requirements to define the level of addressing.

## 7.1 xAL Element



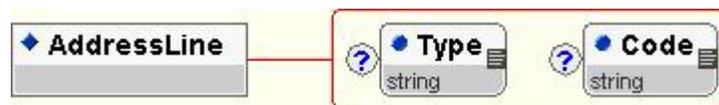
“xAL” is the root element and is a container consisting of a sub-element called “AddressDetails” that can occur multiple times, but must occur at least once. The attribute “Version” defines the version of xAL used (specific to DTD only) and has a fixed value. For example, the value is “2.0” for version number 2.0.

Example:

```
<xAL Version="2.0">
  <AddressDetails>
    .....
    .....
  </AddressDetails>
  <AddressDetails>
    .....
    .....
  </AddressDetails>
</xAL>
```

## 7.2 AddressLine Element

AddressLine element can be used as a free format text to represent address data.



AddressLine element has two attributes namely,

*Type*: To indicate the type of address data tagged by AddressLine element. This is optional.

*Code*: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.

The AddressLine can also be for several purposes. Some are:

- Representing address lines in a physical address
- Supplementary information for the actual address that helps to physically locate the address or deliver mail to the address. Example: 3kms west of the City Tower, Adjacent to Westfield Shopping town, etc.

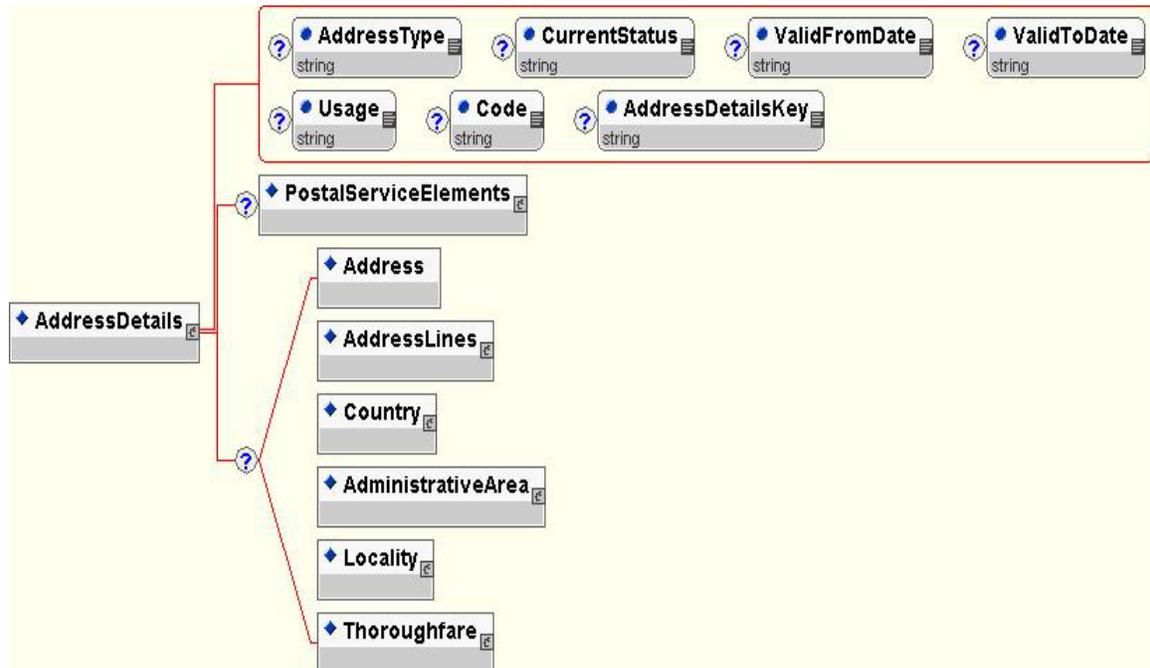
### 7.2.1 Example

**23 Amber Street  
Chatswood  
NSW 2056  
Australia**

```
<xAL>  
  <AddressDetails>  
    <AddressLines>  
      <AddressLine Type="Country">Australia</AddressLine>  
      <AddressLine Type="State">NSW</AddressLine>  
      <AddressLine Type="Post Code">2056</AddressLine>  
      <AddressLine Type="Suburb">Chatswood</AddressLine>  
      <AddressLine Type="Street">23 Amber Street</AddressLine>  
    </AddressLines>  
  </AddressDetails>  
</xAL>
```

### 7.3 AddressDetails Element

AddressDetails is the element that defines an address in detail by breaking it down into elements.



Address Elements	xAL Elements (XML Tags)	Description
Address Details	<b>AddressDetails</b>	<p>This is a container and is the sub-element of root element “xAL”. This element can occur multiple times and it is mandatory that it occur at least once (1 or more). This element helps to track multiple addresses for a customer. This element provides the following attributes:</p> <p><i>AddressType</i>: To define the type of address and is optional. Example: Postal, residential, business, etc.</p> <p><i>CurrentStatus</i>: To define the status of the address and is optional. Example: Living, Moved, Investment, etc</p> <p><i>ValidFromDate</i>: To define the start date of the validity of the address and is optional.</p> <p><i>ValidToDate</i>: To define the end date of the validity of the address and is optional.</p> <p><i>Usage</i>: To define the purpose of use of the address and is optional. Example: Communication, contact, etc.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p> <p><i>AddressDetailsKey</i>: Defines the primary key for reference and is optional. Key identifier for the element for not reinforced references from other elements. Not required to be unique for the document to be valid, but application may get confused if not unique. Extend this schema adding unique constraint if needed.</p>
Elements specifically for postal services	<b>PostalServiceElements</b>	<p>This element is a container and is a sub-element of “AddressDetails” element and can occur once and is optional. This container is used to define postal services specific elements. See sub-section “PostalServiceElements Element” that describes this element.</p>
Address in General	Address	<p>A sub-element of “AddressDetails” element that is used to define a general address at the highest level i.e., as a free format. Can occur once and is optional (0 or 1). This element provides the following attributes:</p> <p><i>Type</i>: Defines the type of address and is optional. Example: Postal, Residential, etc.</p> <p>Example:  <code>&lt;AddressDetails&gt;</code>  <code>&lt;Address&gt;23 Archer St, Chatswood, NSW 2067&lt;/Address&gt;</code>  <code>&lt;/AddressDetails&gt;</code></p>
Address Lines	<b>AddressLines</b>	<p>This element is a container and consists of sub-elements to define an address as a free format text. Can occur once and is optional. See sub-section “AddressLines Element” that describes this container.</p>
Country details	<b>Country</b>	<p>This element is a container. This is a sub-element of “AddressDetails” element that has sub-elements to define the country for an address. Can occur once and is optional. See sub-section “Country Element” for further details.</p>
Administrative Area details	<b>AdministrativeArea</b>	<p>This element is a container. This is a sub-element of “AddressDetails” element that has sub-elements to define the administrative area in an address. Can occur once and is optional (0 or 1). See sub-section “AdministrativeArea Element” for further details.</p>
Locality details	<b>Locality</b>	<p>This element is a container. This is a sub-element of “AddressDetails” element that has sub-elements to define the locality in an address. Can occur</p>

Address Elements	xAL Elements (XML Tags)	Description
		once and is optional. See sub-section "Locality Element" for further details.
Thoroughfare details	<b>Thoroughfare</b>	This element is a container. This is a sub-element of "AddressDetails" element that has sub-elements to define the thoroughfare in an address. Can occur once and is optional (0 or 1). See sub-section "Thoroughfare Element" for further details.

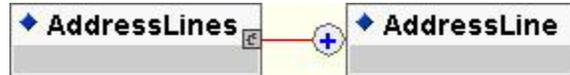
### 7.3.1 Example

**Egis Building, Level 12, 67 Albert Avenue,  
Chatswood, NSW 2067, Australia**

```
<AddressDetails AddressType="Residential"
  CurrentStatus="Living"
  Usage="Postal"
  ValidFromDate="01 May 2002">
  <Country>
    <CountryName>Australia</CountryName>
    <AdministrativeArea>
      <AdministrativeAreaName>NSW</AdministrativeAreaName>
      <Locality>
        <LocalityName>Chatswood</LocalityName>
        <Thoroughfare Type="Street">
          <ThoroughfareNumber>67</ThoroughfareNumber>
          <ThoroughfareName>Archer Street</ThoroughfareName>
          <Premise Type="Building">
            <BuildingName>Egis</BuildingName>
            <SubPremise Type="LEVEL">
              <SubPremiseNumber>12</SubPremiseNumber>
            </SubPremise>
          </Premise>
        </Thoroughfare>
        <PostalCode>
          <PostalCodeNumber>2067</PostalCodeNumber>
        </PostalCode>
      </Locality>
    </AdministrativeArea>
  </Country>
</AddressDetails>
```

## 7.4 AddressLines Element

AddressLines element defines address as general address lines (free format text).



Address Elements	xAL Elements (XML Tags)	Description
Address Lines	<b>AddressLines</b>	This element is a container and is a sub-element of “AddressDetails” element. This element can occur once and is optional. This element has a sub-element to define addresses as a free format text.
Address Line as a free format text	AddressLine	This is a sub-element of the element “AddressLines”. This element can occur multiple times and is mandatory to occur at least once (1 or more). This element is used to define an address line as general free format text line. This element provides the following attributes: <i>Type</i> : Defines the type for the address line and is optional. Could be Locality, country, etc. or number for the address line say, 1 in address line 1. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.

### 7.4.1 Example

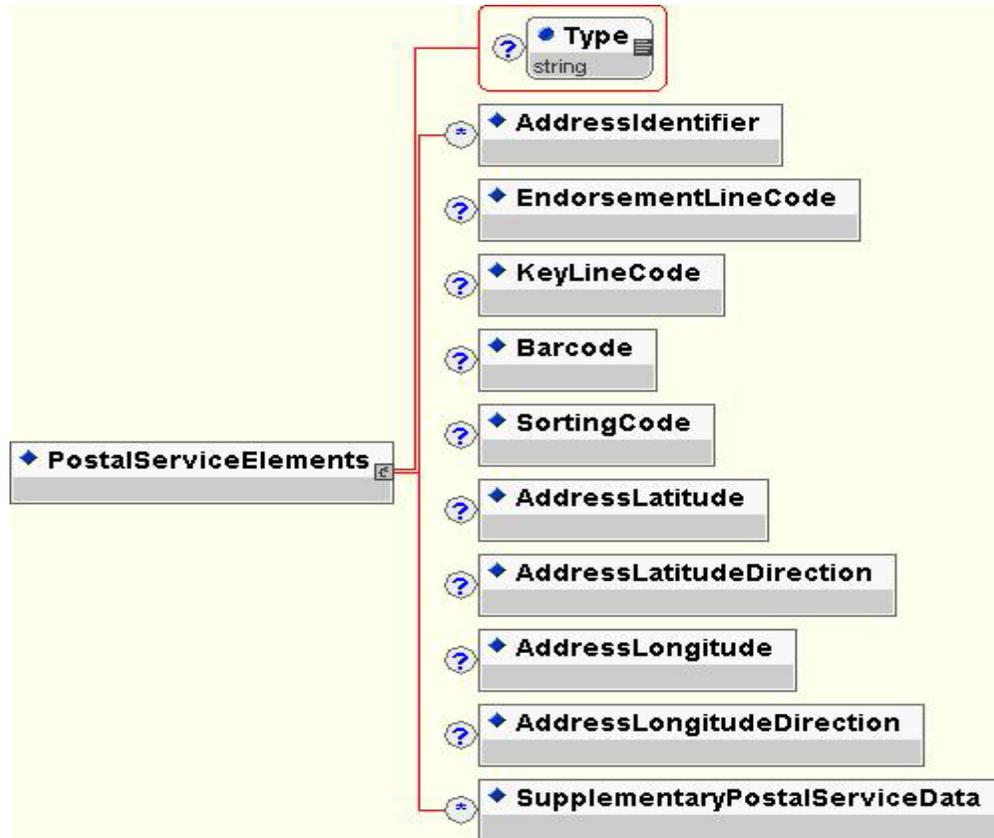
**23 Archer Street  
Chatswood  
NSW 2067  
Australia**

```
<xAL>
  <AddressDetails>
    <AddressLines>
      <AddressLine Type="Street">23 Archer Street</AddressLine>
      <AddressLine Type="Suburb">Chatswood</AddressLine>
      <AddressLine Type="State and Postcode">NSW 2067</AddressLine>
      <AddressLine Type="Country">Australia</AddressLine>
    </AddressLines>
  </AddressDetails>
</xAL>
```

```
<xAL>
  <AddressDetails>
    <AddressLines>
      <AddressLine Type="Line 1">23 Archer Street</AddressLine>
      <AddressLine Type="Line 2">Chatswood</AddressLine>
      <AddressLine Type="Line 3 and Postcode">NSW 2067</AddressLine>
      <AddressLine Type="Line 4">Australia</AddressLine>
    </AddressLines>
  </AddressDetails>
</xAL>
```

## 7.5 PostalServiceElements Element

This element defines the address components that are specific to postal services. Postal authorities for physical delivery of mails use these elements.



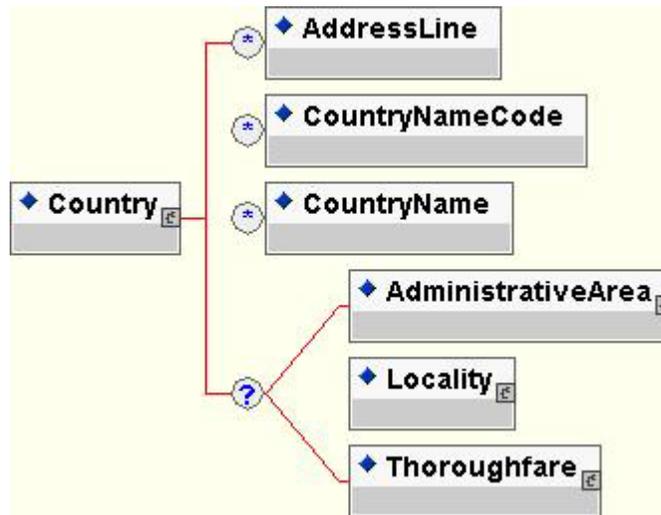
Address Elements	xAL Elements (XML Tags)	Description
Postal services specific elements	<b>PostalServiceElements</b>	This element is a container and is a sub-element of “AddressDetails” element. This element can occur once and is optional. This element has sub-elements to define the postal service specific elements. This element provides the following attribute: <i>Type</i> : Defines the type of postal service and is optional.
Unique identifier for address	AddressIdentifier	This element is a sub-element of “PostalServiceElements” element. Can occur multiple times and is optional (0 or more). This element defines a unique identifier for every address. In some countries like USA, UK, Australia, each address is identifier with a unique number as defined by the postal authorities. This element provides the following attributes: <i>IdentifierType</i> : Defines the type of identifier and is optional. Example: DPID, etc.

Address Elements	xAL Elements (XML Tags)	Description
		<p><i>Type:</i> Defines the status of the Identifier and is optional. Example: new, old, etc.</p> <p><i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Code for endorsement line	EndorsementLineCode	<p>This is the sub-element of the element “PostalServiceElements”. This element can occur once and is optional. This element directly affects postal service distribution. This element provides the following attributes:</p> <p><i>Type:</i> Defines the type for the endorsement line and is optional.</p> <p><i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Barcode	Barcode	<p>This is the sub-element of the element “PostalServiceElements”. This element can occur once and is optional. This element is required for some postal services. This element provides the following attributes:</p> <p><i>Type:</i> Defines the type for the barcode and is optional.</p> <p><i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Sorting Code	SortingCode	<p>This is the sub-element of the element “PostalServiceElements”. This element can occur once and is optional. This element is required for sorting addresses. Values may for example be CEDEX 16 (France). This element provides the following attributes:</p> <p><i>Type:</i> Defines the type for the sorting code and is optional.</p> <p><i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Latitude for address	AddressLatitude	<p>This is the sub-element of the element “PostalServiceElements”. This element can occur once and is optional. This element is used to define the latitude of the delivery address. This element provides the following attributes:</p> <p><i>Type:</i> Defines the type for the latitude and is optional. Example: degrees</p> <p><i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Longitude for address	AddressLongitude	<p>This is the sub-element of the element “PostalServiceElements”. This element can occur once and is optional. This element is used to define the longitude of the delivery address. Has the following attributes:</p> <p><i>Type:</i> Defines the type for the longitude and is optional. Example: Degrees</p> <p><i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Latitude direction for address	AddressLatitudeDirection	<p>This is the sub-element of the element “PostalServiceElements”. This element can occur once and is optional. This element is used to define the latitude direction of the delivery address. Example: NORTH. Has the following attribute:</p> <p><i>Type:</i> Defines the type and is optional.</p>

Address Elements	xAL Elements (XML Tags)	Description
		<i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Longitude direction for address	AddressLongitudeDirection	This is the sub-element of the element “PostalServiceElements”. This element can occur once and is optional. This element is used to define the longitude direction of the delivery address. Example: EAST. Has the following attribute: <i>Type</i> : Defines the type and is optional. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Additional data for postal services	SupplementaryPostalServiceData	This is the sub-element of the element “PostalServiceElements”. This element can occur multiple times and is optional. This element is used to define any additional postal service specific elements. Has the following attributes: <i>Type</i> : Defines the type of the postal service element and is optional. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.

## 7.6 Country Element

Country Element is used to define the country name in an address in detail.



Address Elements	xAL Elements (XML Tags)	Description
Country details	<b>Country</b>	This element is a container and is a sub-element of the element “NameDetails”. This container can occur once and is optional. This container provides sub-elements to define the country.
Address Line as a free format text	AddressLine	This element can occur multiple times and is optional (0 or more). This element defines an address line as a general free format text line. Has the following attributes: <i>Type</i> : Defines the type for the address line and is optional. Could be Locality,

Address Elements	xAL Elements (XML Tags)	Description
		country, etc. or number for the address line say, 1 in address line 1. <i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Country Code	CountryNameCode	This element is the sub-element of the element “Country”. This element can occur multiple times (0 or more) and is optional. This element defines the country code for the country. Can have multiple country codes depending upon the scheme it uses. This element provides the following attributes: <i>Scheme:</i> Defines the scheme of the country code and is optional. Example: iso.3166-2, iso.3166-3 for two- and three-character country codes. <AddressDetails> <Country> <CountryNameCode Scheme=iso.3166-2>AU</CountryNameCode> </Country> <i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Name of country	CountryName	This is the sub-element of the element “Country”. This element can occur multiple times (0 or more) and is optional. This element defines name of the country. Can have multiple country names. Example: Holland and The Netherlands This element provides the following attributes: <i>Type:</i> Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. Example: <AddressDetails> <Country> <CountryName Type=“Official”>The Netherlands</CountryName> <CountryName Type=“OldName”>Holland</CountryName> </Country> <i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Administrative Area	<b>AdministrativeArea</b>	This element is a container. See the section titled “AdministrativeArea Element”. Can occur once and is optional (0 or 1).
Locality	<b>Locality</b>	This element is a container. See the section titled “Locality Element”. Can occur once and is optional (0 or 1).
Thoroughfare	<b>Thoroughfare</b>	This element is a container. See the section titled “Thoroughfare Element”. Can occur once and is optional (0 or 1).

## 7.6.1 Example 1

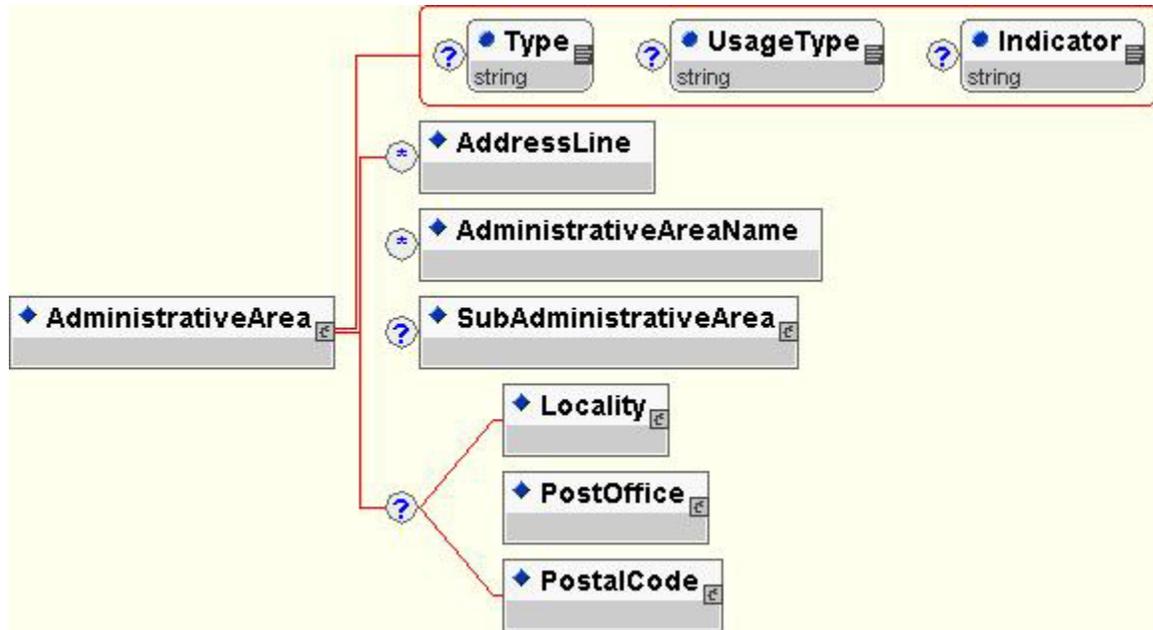
### 23 Archer Street, Chatswood, NSW 2067, Australia

```
<xAL>
  <AddressDetails
    AddressType="Postal"
    CurrentStatus="Investment"
    ValidFromDate="1 Jan 2000"
    ValidToDate="31 March 2000">
    <Country>
      <CountryName>Australia</CountryName>
      <AdministrativeArea Type="State">
        <AdministrativeAreaName>NSW</AdministrativeAreaName>
        <Locality Type="Suburb">
          <LocalityName>CHATSWOOD</LocalityName>
          <Thoroughfare Type="Street">
            <ThoroughfareNumber>23</ThoroughfareNumber>
            <ThoroughfareName>Archer</ThoroughfareName>
            <ThoroughfareTrailingType>Street</ThoroughfareTrailingType>
          </Thoroughfare >
          <PostalCode>
            <PostalCodeNumber>2057</PostalCodeNumber>
          </PostalCode>
        </Locality>
      </AdministrativeArea>
    </Country>
  </AddressDetails>
</xAL>
```

“AddressLine” element can also be used for defining the rest of the address after defining a country.

## 7.7 AdministrativeArea Element

AdministrativeArea element is used to define the administrative area in an address in detail.



AdministrativeArea element is used by:

- AddressDetails element
- Country element.

Address Elements	xAL Elements (XML Tags)	Description
Administrative Area	<b>AdministrativeArea</b>	This element is a container. A sub-element of “AddressDetails” element that has sub-elements to define the administrative area in an address. Can occur once and is optional (0 or 1). Example: of administrative areas could be: Province, State, County, Kanton, bundesamt, etc. This element provides the following attributes: <i>Type</i> : Defines the type of the area and is optional. Possible values include State, Province, District, county, etc. <i>UsageType</i> : Defines the usage of the area as sometimes locations must be distinguished between postal system, and physical locations as defined by a political system. This attribute is optional. <i>Indicator</i> : Defines the indicator used to define the type of area and is optional. Example: Erode (Dist) where the indicator is (Dist) which means Erode is the name of the admin. Area and (Dist) indicates that it is a “District”.
Address Line as a free format text	AddressLine	This element can occur multiple times and is optional (0 or more). This element defines an address line as a general free format text line. This element provides the following attributes: <i>Type</i> : Defines the type for the address line and is optional. Could be Locality, country, etc. or number for the address line say, 1 in address line 1.

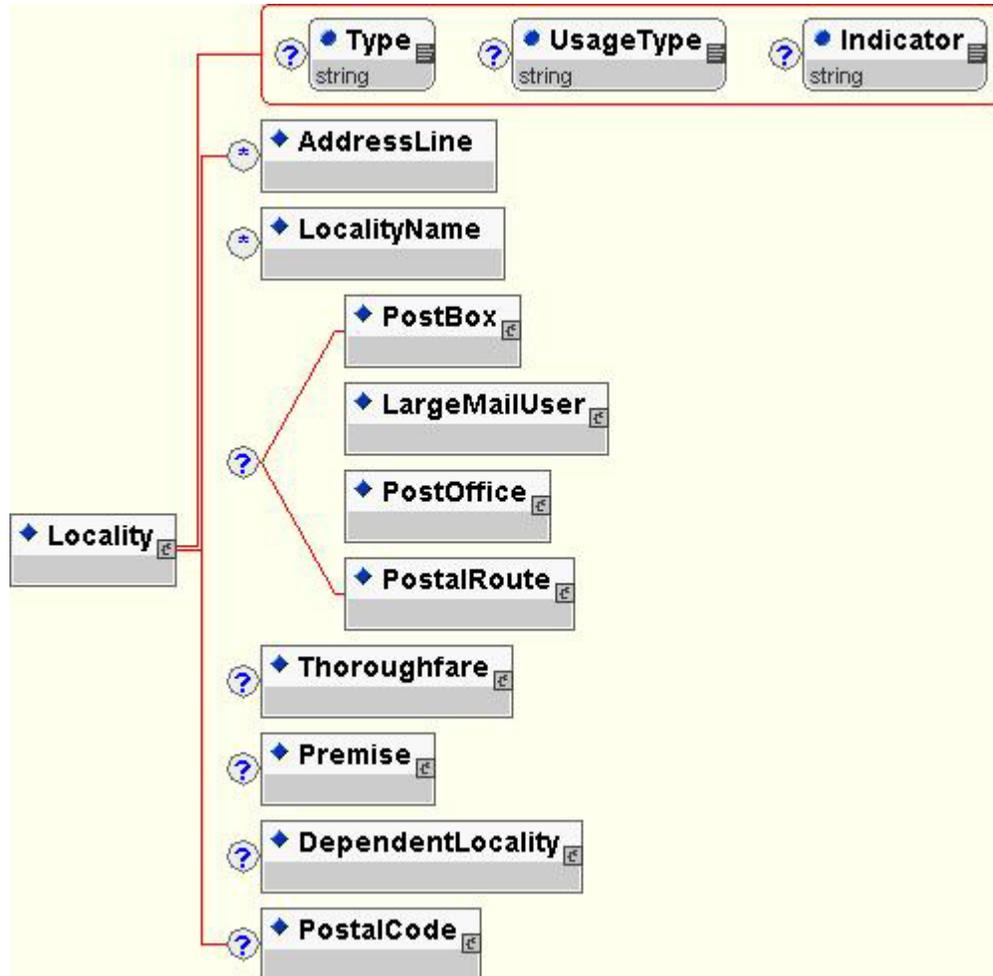
Address Elements	xAL Elements (XML Tags)	Description
		<i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Name of the administrative area	AdministrativeAreaName	This is a sub-element of the element “AdministrativeArea”. This element can occur multiple times (0 or more) and is optional. This element defines name of the administrative area. Can have multiple administrative area names. Examples of administrative areas are provinces, counties, special regions (such as “Rijnmond”), etc. This element provides the following attributes: <i>Type</i> : Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Sub-administrative area	<b>SubAdministrativeArea</b>	This element is a container. This element is a sub-element of “AdministrativeArea” that has sub-elements to define the sub-administrative area in an address. Can occur once and is optional (0 or 1). Example: sub administrative areas could be: Province, State, County, Kanton, etc. Sometimes a country has an admin area, a sub-admin area (another administrative area within an administrative area) and a locality. For examples, in countries like India, a town has a sub administrative area controlled by what is called a “Panchayat”. This element provides the following attributes: <i>Type</i> : Defines the type of the area and is optional. Possible values include State, Province, District, county, etc. <i>UsageType</i> : Defines the usage of the area as sometimes locations must be distinguished between postal system, and physical locations as defined by a political system. This attribute is optional. <i>Indicator</i> : Defines the indicator used to define the type of area and is optional. Example: Erode (Dist) where the indicator is (Dist) which means Erode is the name of the admin. Area and (Dist) indicates that it is a “District”. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Locality	<b>Locality</b>	This element is a container. See the section titled “Locality Element”. Can occur once and is optional (0 or 1).
Post office	<b>PostOffice</b>	This element is a container. See the section titled “PostOffice Element”. Can occur once and is optional (0 or 1).
Postal code	<b>PostalCode</b>	This element is a container. See the section titled “PostalCode Element”. Can occur once and is optional (0 or 1).

## 7.8 Locality Element

Locality Element is used to define the locality in an address in detail.

Locality element is used by the following elements:

- AddressDetails
- Country
- AdministrativeArea



Address Elements	xAL Elements (XML Tags)	Description
Locality	<b>Locality</b>	<p>This element is a container. This is a sub-element of the “AddressDetails” element that has sub-elements to define the locality in an address. Can occur once and is optional (0 or 1). Examples of localities are cities, reservations and any other built-up areas.</p> <p>This element provides the following attributes:</p> <p><i>Type</i>: Defines the type of the area and is optional. Possible values include City, Suburb, Town, County, Province, District, etc.</p> <p><i>UsageType</i>: Defines the usage of the area as sometimes locations must be distinguished between postal system, and physical locations as defined by a political system. This attribute is optional.</p> <p><i>Indicator</i>: Defines the indicator used to define the type of area and is optional. Example: Erode (Dist) where the indicator is (Dist) which means Erode is the name of the admin. Area and (Dist) indicates that it is a “District”.</p>
Free format address line	AddressLine	This element can be used to represent the locality details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Name of locality	LocalityName	<p>This is the sub-element of the element “Locality”. This element can occur multiple times (0 or more) and is optional. This element defines name of the Locality. Can have multiple locality names. This element provides the following attributes:</p> <p><i>Type</i>: Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. Example:                      &lt;LocalityName Type=”Official”&gt;Mumbai&lt;/LocalityName&gt;                      &lt;LocalityName Type=”OldName”&gt;Bombay&lt;/LocalityName&gt;</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Post box	<b>PostBox</b>	This element is a container. See the section titled “PostBox Element”. Can occur once and is optional (0 or 1).
Large mail user	<b>LargeMailUser</b>	This element is a container. See the section titled “LargeMailUser Element”. Can occur once and is optional (0 or 1).
Post office	<b>PostOffice</b>	This element is a container. See the section titled “PostOffice Element”. Can occur once and is optional (0 or 1).
Thoroughfare	<b>Thoroughfare</b>	This element is a container. See the section titled “Thoroughfare Element”. Can occur once and is optional (0 or 1).
Premise	<b>Premise</b>	This element is a container. See the section titled “Premise Element”. Can occur once and is optional (0 or 1).
Dependent Locality	<b>DependentLocality</b>	This element is a container. See the section titled “DependentLocality Element”. Can occur once and is optional (0 or 1).
Postal Code	<b>PostalCode</b>	This element is a container. See the section titled “PostalCode Element”. Can occur once and is optional (0 or 1).
Postal Route	<b>PostalRoute</b>	This element is a container. See the section titled “PostalRoute Element”. Can occur once and is optional (0 or 1).

## 7.8.1 Example

### UNIT 12, 23 Archer Street, Chatswood, NSW 2067, Australia

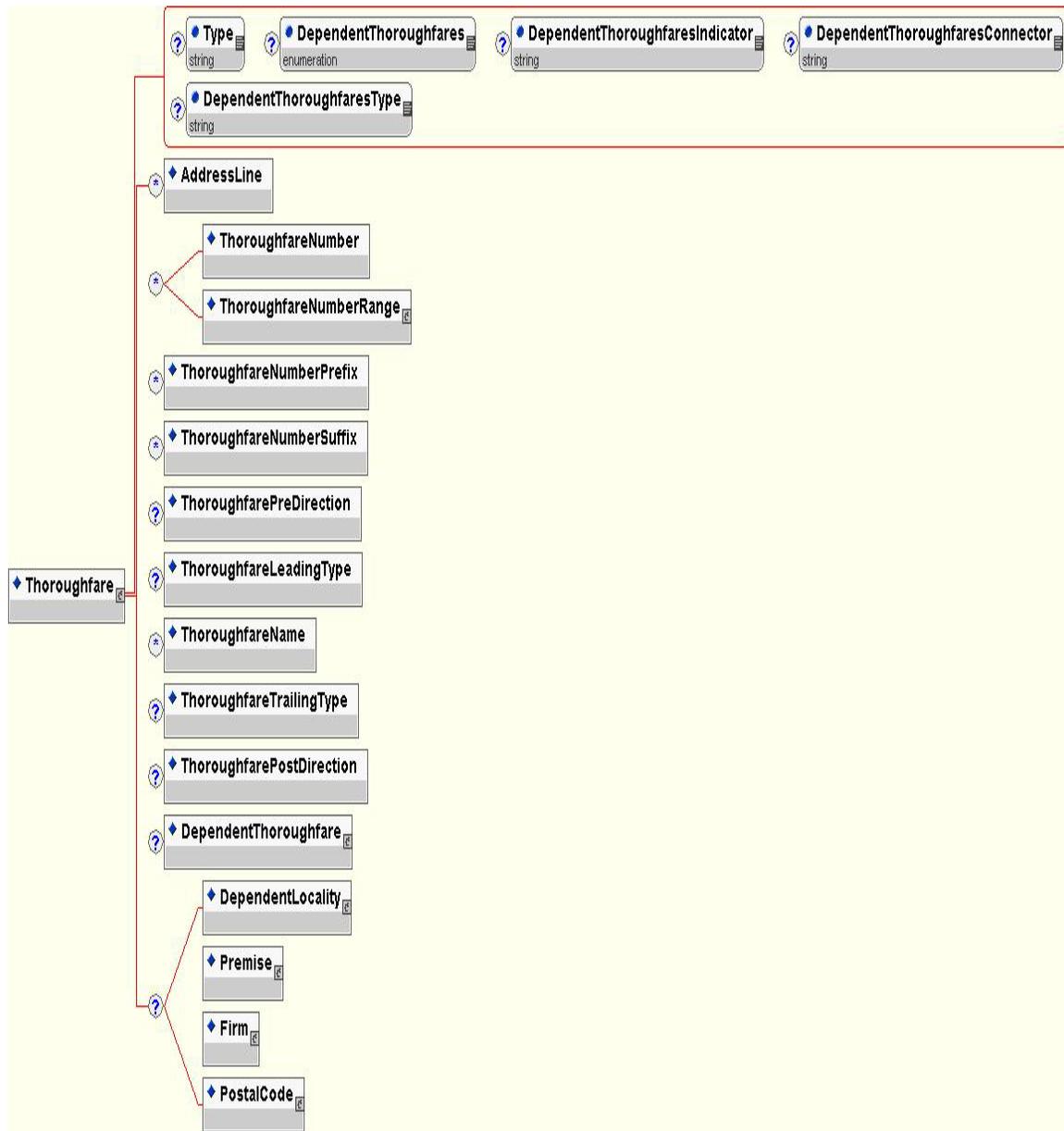
```
<xAL>
  <AddressDetails>
    <Country>
      <CountryName>Australia</CountryName>
      <AdministrativeArea Type="State">
        <AdministrativeAreaName>NSW</AdministrativeAreaName>
        <Locality>
          <LocalityName>CHATSWOOD</LocalityName>
          <Thoroughfare Type="Street">
            <ThoroughfareNumber>23</ThoroughfareNumber>
            <ThoroughfareName>ARCHER</ThoroughfareName>
            <ThoroughfareTrailingType>Street</ThoroughfareTrailingType>
          <Premise Type="UNIT">
            <PremiseNumber>12</PremiseNumber>
            <PostalCode>
              <PostalCodeNumber>2067</PostalCodeNumber>
            </PostalCode>
          </Premise>
        </Thoroughfare>
      </Locality>
    </AdministrativeArea>
  </Country>
</AddressDetails>
</xAL>
```

## 7.9 Thoroughfare Element

Thoroughfare Element is used to define the Thoroughfare in an address in detail.

Thoroughfare element is used by the following elements:

- AddressDetails
- Country
- Locality
- Dependent Locality.



Address Elements	xAL Elements (XML Tags)	Description
Thoroughfare	<b>Thoroughfare</b>	<p>This element is a container. This element is a sub-element of the “AddressDetails” element that has sub-elements to define the Thoroughfare in an address. Can occur once and is optional (0 or 1). This element provides the following attributes:</p> <p><i>Type</i>: Defines the type of Thoroughfare and is optional. Example: Street, Road, Canal, River, etc. A canal or river might serve as a thoroughfare in the address of a houseboat or of a construction on a bank.</p> <p><i>DependentThoroughfares</i>: Defines whether the Thoroughfare has a dependent Thoroughfare. Possible values include “Yes” or “No”. A dependent Thoroughfare is “CNR OF ARCHER &amp; JOHN STREETS” where the dependent street is “JOHN” street for the street “ARCHER”.</p> <p><i>DependentThoroughfaresIndicator</i>: Defines the indicator used to define the dependent Thoroughfare relationship and is optional. Example: “CORNER OF”, “INTERSECTION OF”.</p> <p><i>DependentThoroughfaresConnector</i>: Defines the connector used between dependent Thoroughfare and is optional. For example, “AND” is the connector for “CNR OF ARCHER &amp; JOHN STREETS”</p> <p><i>DependentThoroughfaresType</i>: Defines the common street type used for dependent Thoroughfares and is optional. For example, “STREETS” is the common street type for “CNR OF ARCHER &amp; JOHN STREETS”.</p>
Free format address line	AddressLine	<p>This element can be used to represent the thoroughfare details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.</p>
Name of Thoroughfare	ThoroughfareName	<p>This is a sub-element of the element “Thoroughfare”. This element can occur multiple times (0 or more) and is optional. This element defines the name of the Thoroughfare. Can have multiple Thoroughfare names. This element provides the following attributes:</p> <p><i>Type</i>: Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p> <p><b>NOTE:</b> When defining a ThoroughfareName, the full Thoroughfare could be defined under this tag or just the Thoroughfare name. Both the following examples are valid.</p> <pre>&lt;Thoroughfare&gt;   &lt;ThoroughfareName&gt;John Street&lt;/ThoroughfareName&gt; &lt;/Thoroughfare&gt; (OR) &lt;Thoroughfare&gt;   &lt;ThoroughfareName&gt;John&lt;/ThoroughfareName&gt;   &lt;ThoroughfareTrailingType&gt;Street&lt;/ThoroughfareTrailingType&gt; &lt;/Thoroughfare&gt;</pre>
Pre Direction	ThoroughfarePreDirection	<p>This is a sub-element of the “Thoroughfare” element. This element can</p>

Address Elements	xAL Elements (XML Tags)	Description
of Thoroughfare		<p>occur once and is optional (0 or 1). This element defines the direction (pre) of a Thoroughfare. Example: “North” in “North Archer Street”. This element has the following attributes:</p> <p><i>Type</i>: Defines the type of pre-direction and is optional. Example: Abbreviation.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Leading type of Thoroughfare	ThoroughfareLeadingType	<p>This is a sub-element of “Thoroughfare” element. This element can occur once and is optional (0 or 1). This element defines the type (leading) of a Thoroughfare. Example: Spanish term AVENIDA in the AVENIDA AURORA, or the French term RUE in the RUE MOLIERE. This element has the following attributes:</p> <p><i>Type</i>: Defines the type of and is optional.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Trailing type of Thoroughfare	ThoroughfareTrailingType	<p>This is a sub-element of the “Thoroughfare” element. This element can occur once and is optional (0 or 1). This element defines the type (trailing) of a Thoroughfare. Example: LANE in ARCHER LANE, STREET in ARCHER STREET. This element has the following attributes:</p> <p><i>Type</i>: Defines the type and is optional.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Number of the Thoroughfare	ThoroughfareNumber	<p>This is a sub-element of “Thoroughfare” element. This element can occur multiple times and is optional (0 or more). This element defines the number of a Thoroughfare. Example: 23 in 23 Archer Street. This element provides the following attributes:</p> <p><i>NumberType</i>: Defines the type of Thoroughfare Number and is optional. Provides two values “Single” or “Range”. Example: For 23 Archer Street, the attribute value is “Single” For 23-28 Archer Street, the attribute value is “Range”.</p> <p><i>Type</i>: Defines the type of number and is optional. Example: Old, new, etc.</p> <p><i>Indicator</i>: Defines the indicator of the Thoroughfare number and is optional. Example: No.12 where No. is the indicator.</p> <p><i>IndicatorOccurrence</i>: Defines the occurrence of the Thoroughfare number w.r.t. indicator and is optional. Takes values “Before” and “After”. Example: No.12 where 12 occurs “After” Indicator.</p> <p><i>NumberOccurrence</i>: Defines the occurrence of the number in Thoroughfare data and is optional. Number can occur before or after the thoroughfare name or before or after thoroughfare type. Takes four values: BeforeName   AfterName   BeforeType   AfterType.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Prefix of a Thoroughfare number	ThoroughfareNumberPrefix	<p>This is a sub-element of the “Thoroughfare” element. This element can occur once and is optional (0 or 1). This element defines the prefix of a number for a Thoroughfare. Example: “LODGE” in LODGE 5. This</p>

Address Elements	xAL Elements (XML Tags)	Description
		<p>element has the following attributes:</p> <p><i>NumberPrefixSeparator</i>: Defines the separator between a number and prefix if there is one and is optional. Example: A-12, where 12 is the number and A is the prefix and “-“ is the separator.</p> <p><i>Type</i>: Defines the type and is optional.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Suffix of a Thoroughfare number	ThoroughfareNumberSuffix	<p>This is a sub-element of the “Thoroughfare” element. This element can occur once and is optional (0 or 1). This element defines the suffix of a number for a Thoroughfare number. Example: “A” in 14A Archer Street. This element has the following attributes:</p> <p><i>NumberSuffixSeparator</i>: Defines the separator between a number and suffix if there is one and is optional. Example: 12-A, where 12 is the number and A is the suffix and “-“ is the separator.</p> <p><i>Type</i>: Defines the type and is optional.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Post Direction of Thoroughfare	ThoroughfarePostDirection	<p>This is a sub-element of “Thoroughfare” element. This element can occur once and is optional (0 or 1). This element defines the direction (post) of a Thoroughfare. Example: “North” in “Archer Street North”. This element provides the following attributes:</p> <p><i>Type</i>: Defines the type and is optional.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Thoroughfare Number Range	<b>ThoroughfareNumberRange</b>	<p>This element is a container. See the section titled “ThoroughfareNumberRange Element”. Can occur multiple times and is optional (0 or more).</p>
A dependent Thoroughfare	<b>DependentThoroughfare</b>	<p>This element is a container. See the section titled “DependentThoroughfare Element”. Can occur once and is optional (0 or 1).</p>
Dependent Locality	<b>DependentLocality</b>	<p>This element is a container. In some countries, a large street/road has many subdivisions (areas) and the subdivisions are classified and recognised using the street/road name. For example, in a country like Thailand, a road in Bangkok called “SUKUMVIT ROAD” has many subdivisions called “SOI SUKUMVIT” and each subdivision has a unique number. See the section titled “DependentLocality Element” for further details. Can occur once and is optional (0 or 1).</p>
A Premise	<b>Premise</b>	<p>This element is a container. See the section titled “Premise Element”. Can occur once and is optional (0 or 1).</p>
A Firm	<b>Firm</b>	<p>This element is a container. See the section titled “Firm Element”. Can occur once and is optional (0 or 1). A firm is sometimes identified as part of a thoroughfare.</p>
Postal Code	<b>PostalCode</b>	<p>This element is a container. See the section titled “PostalCode Element”. Can occur once and is optional (0 or 1).</p>

### 7.9.1 Example 1

**House No.10, Corner of North Usman Road and East Belinda Crescent,  
Singapore 1123**

```
<xAL>
  <AddressDetails>
    <Country>
      <CountryName>Singapore</CountryName>
      <Thoroughfare DependentThoroughfares="Yes"
        DependentThoroughfaresIndicator="CORNER OF"
        DependentThoroughfaresConnector="AND">
        <ThoroughfarePreDirection>North</ThoroughfarePreDirection>
        <ThoroughfareName>Usman</ThoroughfareName>
        <ThoroughfareTrailingType>Road</ThoroughfareTrailingType>
        <DependentThoroughfare>
          <ThoroughfarePreDirection>East</ThoroughfarePreDirection>
          <ThoroughfareName>Belinda</ThoroughfareName>
          <ThoroughfareTrailingType>Crescent
        </ThoroughfareTrailingType>
        </DependentThoroughfare>
      <Premise Type="House">
        <PremiseNumber Indicator="No."
          IndicatorOccurrence="Before">10</PremiseNumber>
        <PostalCode>
          <PostalCodeNumber>1123</PostalCodeNumber>
        </PostalCode>
      </Premise>
    </Thoroughfare>
  </Country>
</AddressDetails>
</xAL>
```

### 7.9.2 Example 2

**23 Archer Street, Chatswood, NSW 2067**

```
<xAL>
  <AddressDetails>
    <AdministrativeArea Type="State">
      <AdministrativeAreaName>NSW</AdministrativeAreaName>
      <Locality>
        <LocalityName>CHATSWOOD</LocalityName>
        <Thoroughfare>
          <ThoroughfareNumber>23</ThoroughfareNumber>
          <ThoroughfareName>ARCHER STREET</ThoroughfareName>
          <PostalCode>
            <PostalCodeNumber>2067</PostalCodeNumber>
          </PostalCode>
        </Thoroughfare>
      </Locality>
    </AdministrativeArea>
  </AddressDetails>
</xAL>
```

```
</AddressDetails>  
</xAL>
```

### 7.9.3 Example 3

**47/1 Soi Petchkasem 3  
Petchkasem Road  
Bangkokyai, Bangkok 10600  
Thailand**

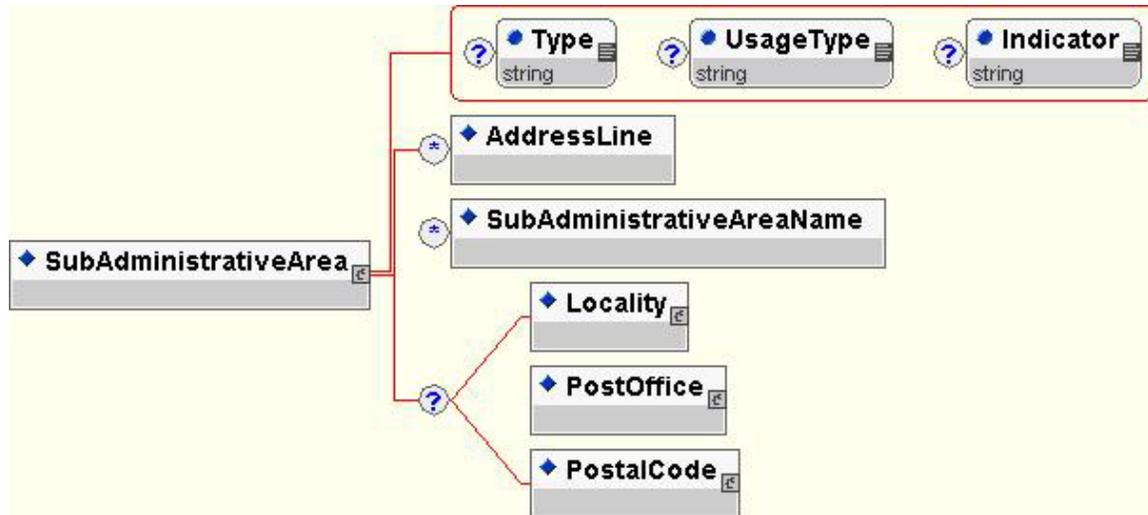
```
<xAL>  
  <AddressDetails>  
    <Country>  
      <CountryName>Thailand</CountryName>  
      <Locality Type="City">  
        <LocalityName>Bangkok</LocalityName>  
        <DependentLocality Type="Suburb">  
          <DependentLocalityName>Bangkokyai</DependentLocalityName>  
          <Thoroughfare Type="Road">  
            <ThoroughfareName>Petchkasem Road</ThoroughfareName>  
            <DependentLocality Type="Area">  
              <DependentLocalityName>Soi Petchkasem</DependentLocalityName>  
              <DependentLocalityNumber>3</DependentLocalityNumber>  
              <Premise Type="House">  
                <PremiseNumber>47/1</PremiseNumber>  
              </Premise>  
            </DependentLocality>  
          </Thoroughfare>  
        </DependentLocality>  
      <PostalCode>  
        <PostalCodeNumber>10600</PostalCodeNumber>  
      </PostalCode>  
    </Locality>  
  </Country>  
</AddressDetails>  
</xAL>
```

## 7.10 SubAdministrativeArea Element

SubAdministrativeArea Element is used to define the sub-administrative area of address in detail.

SubAdministrativeArea element is used by the following elements:

- AdministrativeArea.



Address Elements	xAL Elements (XML Tags)	Description
Sub-Administrative Area	<b>SubAdministrativeArea</b>	This element is a container. This element is a sub-element of the “AdministrativeArea” element that has sub-elements to define the sub-administrative area in an address. Can occur once and is optional (0 or 1). A sub-administrative area is an administrative area within an administrative area. Example: of administrative areas could be: Province, State, County, Kanton, etc. This element provides the following attributes: <i>Type</i> : Defines the type of the area and is optional. Possible values include State, Province, District, county, etc. <i>UsageType</i> : Defines the usage of the area as sometimes locations must be distinguished between postal system, and physical locations as defined by a political system. This attribute is optional. <i>Indicator</i> : Defines the indicator used to define the type of area and is optional. Example: Erode (Dist) where the indicator is (Dist) which means Erode is the name of the admin. Area and (Dist) indicates that it is a “District”.
Free format address line	AddressLine	This element can be used to represent the sub administrative area details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Name of the	SubAdministrativeAreaName	This is a sub-element of the element “SubAdministrativeArea”. This

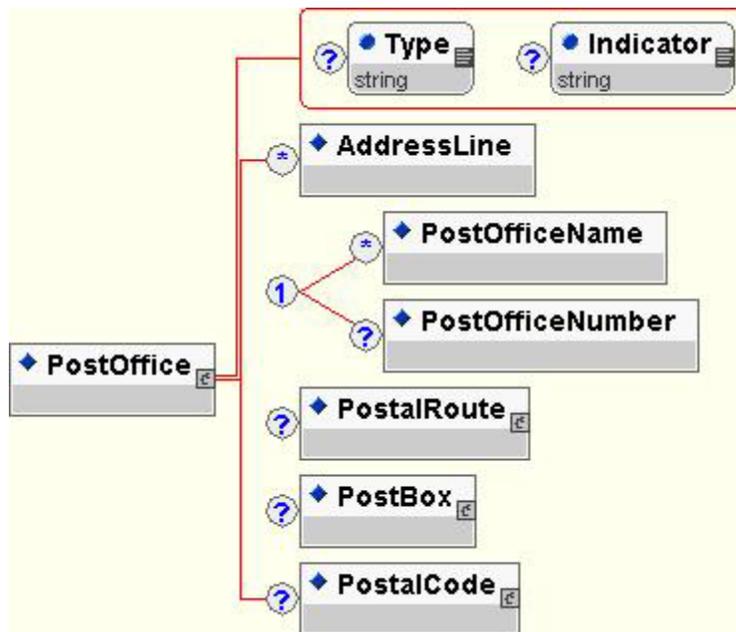
<b>Address Elements</b>	<b>xAL Elements (XML Tags)</b>	<b>Description</b>
sub-administrative area		element can occur multiple times (0 or more) and is optional. This element defines name of the sub administrative area. Can have multiple administrative area names. Examples are county (Ireland) and concelho (Portugal). This element provides the following attribute: <i>Type</i> : Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. Example: <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Locality	<b>Locality</b>	This element is a container. See the section titled “Locality Element”. Can occur once and is optional (0 or 1).
Post office	<b>PostOffice</b>	This element is a container. See the section titled “PostOffice Element”. Can occur once and is optional (0 or 1).
Postal code	<b>PostalCode</b>	This element is a container. See the section titled “PostalCode Element”. Can occur once and is optional (0 or 1).

## 7.11 PostOffice Element

PostOffice Element is used to define the postoffice in an address in detail.

PostOffice element is used by the following elements:

- AdministrativeArea
- Locality
- DependentLocality.



Address Elements	xAL Elements (XML Tags)	Description
Post Office	<b>PostOffice</b>	This element is a container. This element has sub-elements to define the post office in an address. Can occur once and is optional (0 or 1). Examples are a rural post office, mobile post office where post is delivered and a post office containing post office boxes. This element provides the following attributes: <i>Type</i> : Defines the type of the postoffice and is optional. Possible values include Rural, Mobile, etc. <i>Indicator</i> : Defines the indicator used to define the post office and is optional. Example: (po) in Kottivakkam (po).
Free format address line	AddressLine	This element can be used to represent the post office details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Name of the Post office	PostOfficeName	This is a sub-element of the element “PostOffice”. This element can occur multiple times (0 or more) and is optional. This element defines name of the post office. Can have multiple post office names. This element provides the following attribute: <i>Type</i> : Defines the type of name and is optional. Possible values include

Address Elements	xAL Elements (XML Tags)	Description
		Official, Unique, Abbreviation, OldName, Synonym, etc. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services
Number of the Post Office	PostOfficeNumber	This is a sub-element of the element "PostOffice". This element can occur once (0 or 1) and is optional. This element defines the number of the post office. The number system is common in rural post offices. This element provides the following attribute: <i>Indicator</i> : Defines the post office number indicator. For example, MS in MS 62. <i>IndicatorOccurrence</i> : Defines the occurrence of the post office number indicator in conjunction with the number. The values could be either "Before" or "After". Example: MS occurs before 62 in MS 62. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Postal Route	<b>PostalRoute</b>	This element is a container. See the section titled "PostalRoute Element". Can occur once and is optional (0 or 1).
Post Box	<b>PostBox</b>	This element is a container. See the section titled "PostBox Element". Can occur once and is optional (0 or 1).
Postal Code	<b>PostalCode</b>	This element is a container. See the section titled "PostalCode Element". Can occur once and is optional (0 or 1).

### 7.11.1 Example 1

#### "KARINYA" M/S 172, ALLORA QLD 4362

```

<xAL>
  <AddressDetails>
    <AdministrativeArea Type="State">
      <AdministrativeAreaName
        Type="Abbreviation">QLD</AdministrativeAreaName>
    <Locality Type="Town">
      <LocalityName>ALLORA</LocalityName>
      <PostOffice Type="MailService">
        <PostOfficeNumber Indicator="M/S">172</PostOfficeNumber>
      </PostOffice>
      <Premise Type="Farm">
        <PremiseName>KARINYA</PremiseName>
      </Premise>
    </Locality>
  </AdministrativeArea>
</AddressDetails>
</xAL>

```

## 7.11.2 Example 2

**Balu Illam,  
Attukkaaran Thottam, Karattoor, Kupbandapalayam (P.O)  
Via-Athani, Kovai District, 638012, Tamilnadu, India**

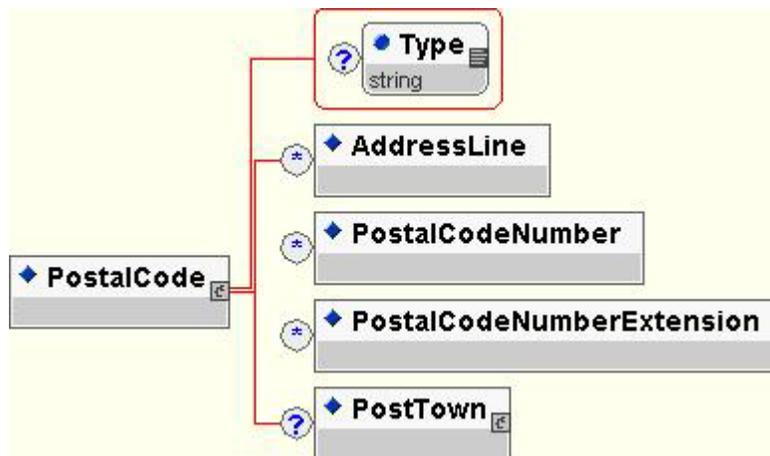
```
<xAL>
  <AddressDetails>
    <Country>
      <CountryName>India</CountryName>
      <AdministrativeArea Type="State">
        <AdministrativeAreaName>Tamilnadu</AdministrativeAreaName>
        <SubAdministrativeArea Type="District" Indicator="(Dist)">
          <SubAdministrativeAreaName>Kovai</SubAdministrativeAreaName>
          <Locality>
            <LocalityName>Athani</LocalityName>
            <PostOffice Indicator="(P.O)">
              <PostOfficeName>Kuppaandapalayam</PostOfficeName>
              <PostalCode>
                <PostalCodeNumber>638012</PostalCodeNumber>
              </PostalCode>
            </PostOffice>
            <DependentLocality Type="Town" Connector="Via">
              <DependentLocalityName>Karattoor</DependentLocalityName>
              <Premise Type="Farm">
                <PremiseName>Attukkaaran Thottam</PremiseName>
                <SubPremise Type="House">
                  <SubPremiseName>Balu Illam</SubPremiseName>
                </SubPremise>
              </Premise>
            </DependentLocality>
          </Locality>
        </SubAdministrativeArea>
      </AdministrativeArea>
    </Country>
  </AddressDetails>
</xAL>
```

## 7.12 PostalCode Element

PostalCode Element is used to define the postal code in an address in detail.

PostalCode element is used by the following elements:

- AdministrativeArea
- Locality
- DependentLocality
- LargeMailUser
- PostOffice
- PostBox
- Firm
- Department
- Thoroughfare
- Premise
- SubPremise.



Address Elements	xAL Elements (XML Tags)	Description
Postal Code	<b>PostalCode</b>	This element is a container and has sub-elements to define the postal code in an address. Can occur once and is optional (0 or 1). This element provides the following attribute: <i>Type</i> : Defines the type of PostalCode and is optional. Example: Delivery code as in New Zealand, area code for some countries, etc
Free format address line	AddressLine	This element can be used to represent the postal code details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Post Town	<b>PostTown</b>	This element is a container. See the section titled “PostTown Element”. Can occur once and is optional (0 or 1).
Postal code	PostalCodeNumber	This element is a sub-element of “PostalCode” and is used to define

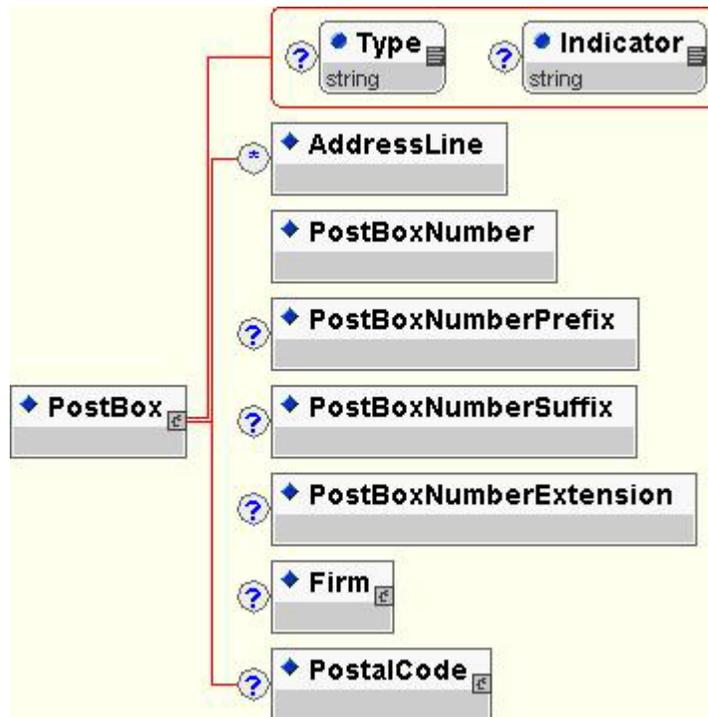
Address Elements	xAL Elements (XML Tags)	Description
number		the number of the postalcode. Can occur multiple times and is optional. This element provides the following attributes: <i>Type</i> : Defines the type of number. Example: Old, new, etc. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services
Postal code number rextension	<b>PostalCodeNumberExtension</b>	This is the sub-element of the element "PostalCode". This element can occur once (0 or 1) and is optional. This element defines the extension number in a postal code. Examples are: 1234 (USA), 1G (UK), etc. This element provides the following attributes: <i>Type</i> : Defines the type of extension and is optional. Examples include DeliveryPointSuffix, NewPostalCode, etc. <i>NumberExtensionSeparator</i> : Defines the separator between postal code number and the extension. Example: "-" in 12345-1234 <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services

### 7.13 PostBox Element

PostBox Element is used to define the post box in an address in detail.

PostBox element is used by the following elements:

- Locality
- DependentLocality
- Postoffice.



Address Elements	xAL Elements (XML Tags)	Description
Post Box	<b>PostBox</b>	This element is a container and has sub-elements to define the post box in an address. Can occur once and is optional (0 or 1). Examples of postboxes are POBox, free mail numbers, etc. This element provides the following attributes: <i>Type</i> : Defines the type of PostBox and is optional. Examples are Locked Bag, PO Box, GPO Box, FreePost etc. <i>Indicator</i> : Defines the indicator for the type. Example, No. in Locked Bag No.
Free format address line	AddressLine	This element can be used to represent the post box details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.

Address Elements	xAL Elements (XML Tags)	Description
Number of the post box	PostBoxNumber	This is a sub-element of the element “PostBox”. This element can occur once (0 or 1) and is mandatory. This element defines the number of postbox. Example: 2067 in POBox: 2067. Note that one can also represent suffixes and prefixes in a number as part of this element rather than breaking it up. This element provides the following attributes: <i>Type</i> : Defines the type of post box and is optional. Example: POBox, FreePost, etc <i>Code</i> : Some postal services use a special code to define the element. Eg, ECCMA Code Tables for postal services.
Prefix of the post box number	PostBoxNumberPrefix	This is a sub-element of the element “PostBox”. This element can occur once (0 or 1) and is optional. This element defines the prefix in a number for the postbox. Example: “A” in POBox: A2067. This element provides the following attributes: <i>NumberPrefixSeparator</i> : Defines the separator between a number and prefix if there is one and is optional. Example: A-12, where 12 is the number and A is the prefix and “-“ is the separator. <i>Code</i> : Some postal services use a special code to define the element. Eg, ECCMA Code Tables for postal services.
Suffix of the post box number	PostBoxNumberSuffix	This is a sub-element of the element “PostBox”. This element can occur once (0 or 1) and is optional. This element defines the prefix in a number for the postbox. Example: “A” in POBox: 2067A. This element provides the following attributes: <i>NumberSuffixSeparator</i> : Defines the separator between a number and suffix if there is one and is optional. Example: 12-A, where 12 is the number and A is the suffix and “-“ is the separator. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Extension number for post box number	PostBoxNumberExtension	This is a sub-element of the element “PostBox”. This element can occur once (0 or 1) and is optional. This element defines the extension number of a post box number. Example: 1234 in POBOX: 12345-1234. This element provides the following attributes: <i>NumberExtensionSeparator</i> : Defines the separator between the number and the extension and is optional. Example: “-“ in 12345-1234. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services
Firm	<b>Firm</b>	This element is a container. See the section titled “Firm Element”. Can occur once and is optional (0 or 1). A firm could be associated with postboxes.
Postal code	<b>PostalCode</b>	This element is a container. See the section titled “PostalCode Element”. Can occur once and is optional (0 or 1). A collection of postboxes could have a postal code.

### 7.13.1 Example

#### POBox: 773A, Chatswood, NSW 2057, Australia

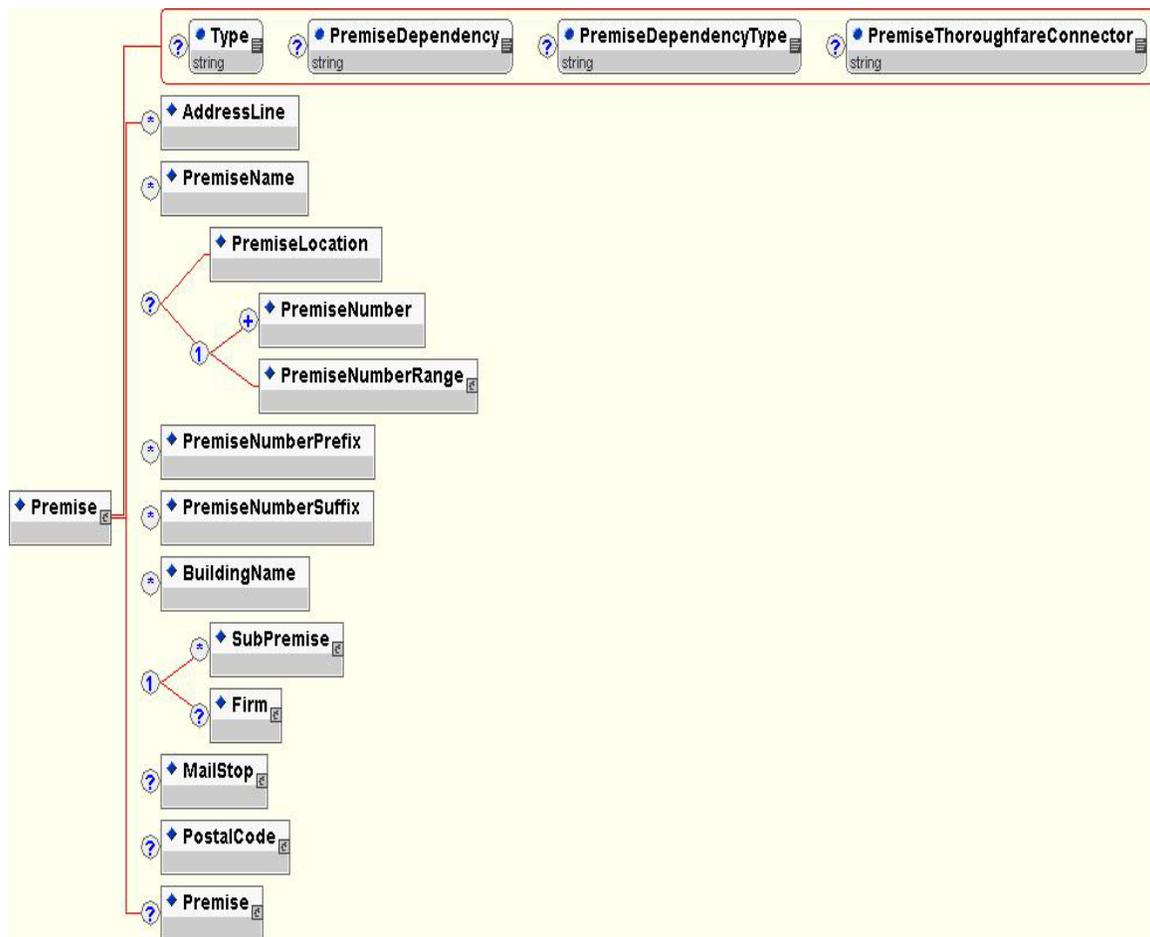
```
<xAL>
  <AddressDetails AddressType="Postal"
    CurrentStatus="Investment"
    ValidFromDate="1 Jan 2000"
    ValidToDate="31 March 2000">
    <Country>
      <CountryName>Australia</CountryName>
      <AdministrativeArea Type="State">
        <AdministrativeAreaName>NSW</AdministrativeAreaName>
        <Locality>
          <LocalityName>CHATSWOOD</LocalityName>
          <PostBox Type="POBox">
            <PostBoxNumber>773</PostBoxNumber>
            <PostalCode>
              <PostalCodeNumber>2057</PostalCodeNumber>
            </PostalCode>
          </PostBox>
        </Locality>
      </AdministrativeArea>
    </Country>
  </AddressDetails>
</xAL>
```

## 7.14 Premise Element

Premise Element is used to define the premise in an address in detail.

Premise element is used by the following elements:

- Locality
- DependentLocality
- Thoroughfare
- Premise (recursive).



Address Elements	xAL Elements (XML Tags)	Description
Premise	<b>Premise</b>	<p>This element is a container and has sub-elements to define the Premise in an address. Can occur multiple times and is optional (0 or more). This is a container. Examples of premise include house, building, shopping centre, transport station, etc. There could be more than one premise in a Thoroughfare referenced in an address. For example a building address near a major shopping centre or railway station. This is different from a subpremise within a premise. This is why there is a need to define premise again as part of the contents of the container premise. A subpremise within a premise is shops in a shopping centre, apartments in a building, rooms in a hotel, etc. This element provides the following attributes:</p> <p><i>Type</i>: Defines the type of Premise and is optional. Example: “COMPLEXE” in “COMPLEX DES JARDINS”</p> <p><i>PremiseDependency</i>: Defines the dependency of this premise in an address (eg reference of a location to define this premise in an address) and is optional. EGS Building near Hornsby Railway Station. The PremiseDependency for EGIS Building is a Premise of type Railway Station.</p> <p><i>PremiseDependencyType</i>: Defines the type of dependency and is optional. Example: “NEAR” as in Near Hornsby Railway Station</p> <p><i>PremiseThoroughfareConnector</i>: Defines the connector used to connect between a premise and a Thoroughfare and is optional. DES, DE, LA, LA, DU in RUE DU BOIS. These terms connect a premise/Thoroughfare type and premise/Thoroughfare name. Terms may appear with names AVE DU BOIS.</p>
Free format address line	AddressLine	<p>This element can be used to represent the premise details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.</p>
Location of the Premise	PremiseLocation	<p>This is a sub-element of the element “Premise”. This element can occur once (0 or 1) and is optional. This element defines the location (position) of the premise. Ground Floor as in Ground Floor, ABC Building. Other examples include, “Basement”, “Lobby”, “First”, “Central”, etc. This element provides the following attribute:</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Name of the Premise	PremiseName	<p>This is a sub-element of the element “Premise”. This element can occur multiple times (0 or more) and is optional. This element defines the name of the premise.</p> <p>Example: EGIS Building where “EGIS” is the name for the premise of type “Building”. This element provides the following attributes:</p> <p><i>Type</i>: Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc.</p> <p><i>TypeOccurrence</i>: Defines the occurrence of the premise name in association with the premise type and is optional. Can only take values “Before” and “After”. Example: “EGIS Building” where “EGIS” occurs before “Building”, “DES JARDINS” occurs after “COMPLEXE DES JARDINS”.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Number of the Premise	PremiseNumber	<p>This is a sub-element of the element “Premise”. This element can occur multiple times (0 or more) and is optional. This element defines the number</p>

Address Elements	xAL Elements (XML Tags)	Description
		<p>for the premise. Example: “12” in “Building 12”. This element provides the following attributes:</p> <p><i>NumberType</i>: Defines the number type of the premise. Take values: Single or Range and is optional.</p> <p><i>Type</i>: Defines the type of number and is optional, Example: Old, new, etc</p> <p><i>Indicator</i>: Defines the indicator of the number and is optional. Example: “No.” in “House No.12” where “House” is premise type and “12” is the premise number.</p> <p><i>IndicatorOccurrence</i>: Defines the occurrence of the indicator in association with the number and is optional. Can only take values “Before” and “After”. Example: “No.” occurs before number “12” in “No.12”.</p> <p><i>NumberTypeOccurrence</i>: Defines the occurrence of the number in association with the premise type and is optional. Can only take values “Before” and “After”. Example: “12” in “BUILDING 12” occurs after premise type “BUILDING”.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Number range for premise	<b>PremiseNumberRange</b>	This element is a container. See section “PremiseNumberRange Element” for further details. This element is a container and can occur multiple times and is optional.
Suffix of the Premise number	PremiseNumberSuffix	<p>This is a sub-element of the element “Premise”. This element can occur multiple times (0 or more) and is optional. This element defines the number suffix for the premise. Example: “A” in “Building 12A”. This element provides the following attributes:</p> <p><i>NumberSuffixSeparator</i>: Defines the separator between a number and prefix if there is one and is optional. Example:12-A, where “12” is the number and “A” is the suffix and “-“ is the separator.</p> <p><i>Type</i>: Defines the type of number suffix and is optional. Example: Old, new</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Prefix of the Premise number	PremiseNumberPrefix	<p>This is a sub-element of the element “Premise”. This element can occur multiple times (0 or more) and is optional. This element defines the prefix in a number for the premise. Example: “A” in “A12 Building”. This element provides the following attributes:</p> <p><i>NumberPrefixSeparator</i>: Defines the separator between a number and prefix if there is one and is optional. Example: “A-12”, where “12” is the number and “A” is the prefix and “-“ is the separator.</p> <p><i>Type</i>: Defines the type of number prefix and is optional. Example: Old, new</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Name of the building	BuildingName	This is a sub-element of the element “Premise”. This element can occur multiple times (0 or more) and is optional. This element defines the name of the premise. Though “PremiseName” element exists to define the name of the premise, an address can have two names. Example, “Heaven House”, “Beauty Building”, where “Heaven House” is the name of the premise in a premise of type “Building” which has a name “Beauty Apartments”. Or, one can define “heaven House” as a sub premise name with the type of subpremise as an

Address Elements	xAL Elements (XML Tags)	Description
		apartment. This element provides the following attributes: <i>Type</i> : Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. <i>TypeOccurrence</i> : Defines the occurrence of the name of the building and is optional. Has two values: Before and After. Example: Building EGIS. Here the name occurs after building. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Mail stop	<b>MailStop</b>	This element is a container. See the section titled "SubPremise Element". Can occur once and is optional (0 or 1).
Sub-Premise	<b>SubPremise</b>	This element is a container. See the section titled "SubPremise Element". Can occur multiple times and is optional (0 or more).
Firm	<b>Firm</b>	This element is a container. See the section titled "Firm Element". Can occur once and is optional (0 or 1). A Firm could exist in a premise.
Postal Code	<b>PostalCode</b>	This element is a container. See the section titled "PostalCode Element". Can occur once and is optional (0 or 1). A premise could have a postal code in some countries.
Premise	<b>Premise</b>	This element is a container. See "Premise Element". Recursion of "Premise" element is useful when using dependent premises.

### 7.14.1 Example 1

#### **Egis Building, Level 12, 67 Albert Avenue, Chatswood, NSW 2067, Australia**

```

<xAL>
  <AddressDetails AddressType="Residential"
    CurrentStatus="Living"
      Usage="Postal"
      ValidFromDate="01 May 2002">
    <Country>
      <CountryName>Australia</CountryName>
      <AdministrativeArea>
        <AdministrativeAreaName>NSW</AdministrativeAreaName>
        <Locality>
          <LocalityName>Chatswood</LocalityName>
          <Thoroughfare Type="Avenue">
            <ThoroughfareNumber>67</ThoroughfareNumber>
            <ThoroughfareName>Albert avenue</ThoroughfareName>
            <Premise Type="Building">
              <BuildingName>Egis</BuildingName>
              <SubPremise Type="LEVEL">
                <SubPremiseNumber>12</SubPremiseNumber>
              </SubPremise>
            </Premise>
          </Thoroughfare>
          <PostalCode>
            <PostalCodeNumber>2067</PostalCodeNumber>
          </PostalCode>
        </Locality>
      </AdministrativeArea>
    </Country>
  </AddressDetails>

```

```
    </AdministrativeArea>
  </Country>
</AddressDetails>
</xAL>
```

## 7.14.2 Example 2

### 1 Jalan Satu, Near Masjid, 3150 Tronoh, Perak, Malaysia

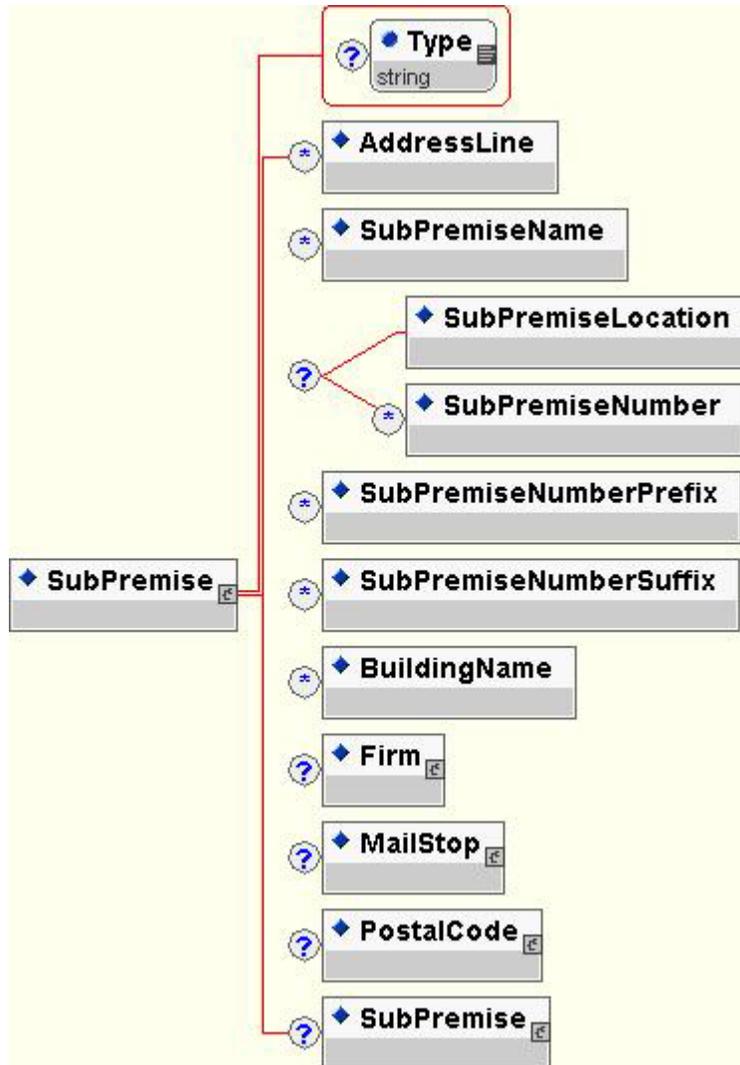
```
<xAL>
  <AddressDetails>
    <Country>
      <CountryName>Malaysia</CountryName>
    <AdministrativeArea>
      <AdministrativeAreaName>Perak</AdministrativeAreaName>
    <Locality>
      <LocalityName>Tronoh</LocalityName>
      <Thoroughfare Type="Street">
        <ThoroughfareNumber>1</ThoroughfareNumber>
        <ThoroughfareName>Jalan Satu</ThoroughfareName>
        <Premise Type="Mosque"
          PremiseDependency="STREET"
          PremiseDependencyType="NEAR">
          <PremiseName>Masjid</PremiseName>
        </Premise>
      </Thoroughfare>
      <PostalCode>
        <PostalCodeNumber>3150</PostalCodeNumber>
      </PostalCode>
    </Locality>
  </AdministrativeArea>
</Country>
</AddressDetails>
</xAL>
```

## 7.15 SubPremise Element

A SubPremise Element is used to define the sub premise in an address in detail.

SubPremise element is used by the following elements:

- Premise
- SubPremise (recursive).



Address Elements	xAL Elements (XML Tags)	Description
SubPremise	<b>SubPremise</b>	SubPremise element is a sub element of “Premise” element. This is a container. This element has sub-elements to define the SubPremise in an address. Can occur multiple times and is optional (0 or more). Examples of a sub premise are Apartment, suite, floor, etc. There could be more than one subpremise in a premise in a Thoroughfare referenced in an address. That is why there is a need for recursively calling subpremise element. This element provides the following attribute: <i>Type</i> : Defines the type of SubPremise and is optional. Example: UNIT in Unit 2.
Free format address line	AddressLine	This element can be used to represent the sub premise details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Location of the SubPremise	SubPremiseLocation	This is a sub-element of the element “SubPremise”. This element can occur once (0 or 1) and is optional. This element defines the location (position) of the subpremise. Ground Floor. Other examples include, “Basement”, “Lobby”, “First”, “Central”, etc. This element provides the following attributes: <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Name of the Sub Premise	SubPremiseName	This is a sub-element of the element “SubPremise”. This element can occur multiple times (0 or more) and is optional. This element defines the name of the sub premise. Example: “My House” as in “My House”, “UNIT 2”. This element provides the following attributes: <i>Type</i> : Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. <i>TypeOccurrence</i> : Defines the occurrence of the subpremise name in association with the subpremise type and is optional. Can only take values “Before” and “After”. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Number of the SubPremise	SubPremiseNumber	This is a sub-element of the element “SubPremise”. This element can occur more than once (0 or more) and is optional. This element defines the number for the subpremise. This element provides the following attributes: <i>Indicator</i> : Defines the indicator of the number and is optional. <i>IndicatorOccurrence</i> : Defines the occurrence of the indicator in association with the number and is optional. Can only take values “Before” and “After”. <i>NumberTypeOccurrence</i> : Defines the occurrence of the number in association with the subpremise type and is optional. Can only take values “Before” and “After”. <i>PremiseNumberSeparator</i> : Defines the separator used to separate between Sub Premise number and Premise number and is optional. Example: “/” in “12/14” where “12” is Sub Premise number and “14” is premise number. <i>Type</i> : Defines the type of number and is optional. Example: Old

Address Elements	xAL Elements (XML Tags)	Description
		number, new number, official number, etc. <i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Suffix of the SubPremise number	SubPremiseNumberSuffix	This is a sub-element of the element “SubPremise”. This element can occur once (0 or 1) and is optional. This element defines the number suffix for the subpremise. Example: “A” in “UNIT 12A”. This element provides the following attributes: <i>NumberSuffixSeparator:</i> Defines the separator between a number and prefix if there is one and is optional. Example: “12-A”“12” is the number and “A” is the suffix and “-“ is the separator. <i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Prefix of the SubPremise number	SubPremiseNumberPrefix	This is a sub-element of the element “SubPremise”. This element can occur once (0 or 1) and is optional. This element defines the prefix in a number for the subpremise. Example: “A” in “A12 Apt”. This element provides the following attributes: <i>NumberPrefixSeparator:</i> Defines the separator between a number and prefix if there is one and is optional. Example: “A-12”, where “12” is the number and “A” is the prefix and “-“ is the separator. <i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Name of the building	BuildingName	This is a sub-element of the element “SubPremise”. This element can occur multiple times (0 or more) and is optional. This element defines the name of the subpremise. Though “SubPremiseName” element exists to define the name of the subpremise, an address can have two names. This element provides the following attributes: <i>Type:</i> Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. <i>TypeOccurrence:</i> Defines the occurrence of the name of the building and is optional. Allows two values: Before and After. Example: Building EGIS. Here name occurs after building. <i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Sub-Premise	<b>SubPremise</b>	This element is a container. See the section titled “SubPremise Element”. Recursion of “SubPremise” element is useful when using dependent premises.
Firm	<b>Firm</b>	This element is a container. See the section titled “Firm Element”. Can occur once and is optional (0 or 1). A Firm could exist in a premise.
Mail stop	<b>MailStop</b>	This element is a container. See the section titled “SubPremise Element”. Can occur once and is optional (0 or 1).
Postal Code	<b>PostalCode</b>	This element is a container. See the section titled “PostalCode Element”. Can occur once and is optional (0 or 1). A premise could have a postal code in some countries.

### 7.15.1 Example 1

**Block 2, RIPPON BUILDING Level 12, Suite 1A  
47 Kingson Avenue North, North Ryde, NSW 2113, Australia**

```
<xAL>
  <AddressDetails>
    <Country>
      <CountryName>Australia</CountryName>
      <AdministrativeArea Type="State">
        <AdministrativeAreaName>NSW</AdministrativeAreaName>
        <Locality>
          <LocalityName>NORTH RYDE</LocalityName>
          <Thoroughfare Type="Avenue">
            <ThoroughfareNumber>47</ThoroughfareNumber>
            <ThoroughfareName>KINGSTON</ThoroughfareName>
            <ThoroughfareTrailingType>AVENUE</ThoroughfareTrailingType>
            <ThoroughfarePostDirection>NORTH</ThoroughfarePostDirection>
            <Premise Type="BUILDING">
              <PremiseName TypeOccurrence="After">RIPPON</PremiseName>
              <SubPremise Type="BLOCK">
                <SubPremiseNumber>2</SubPremiseNumber>
                <SubPremise Type="LEVEL">
                  <SubPremiseNumber>2</SubPremiseNumber>
                  <SubPremise Type="SUITE">
                    <SubPremiseNumber>1</SubPremiseNumber>
                    <SubPremiseNumberSuffix>A</SubPremiseNumberSuffix>
                  </SubPremise>
                </SubPremise>
              </SubPremise>
            </Premise>
          </Thoroughfare>
          <PostalCode>
            <PostalCodeNumber>2113</PostalCodeNumber>
          </PostalCode>
        </Locality>
      </AdministrativeArea>
    </Country>
  </AddressDetails>
</xAL>
```

## 7.15.2 Example 2

**Floor 4, Ste 5, Block C**  
**Carnegie VIII**  
**43 West Archer Street**  
**Boulder, CO 80302-4598, USA**

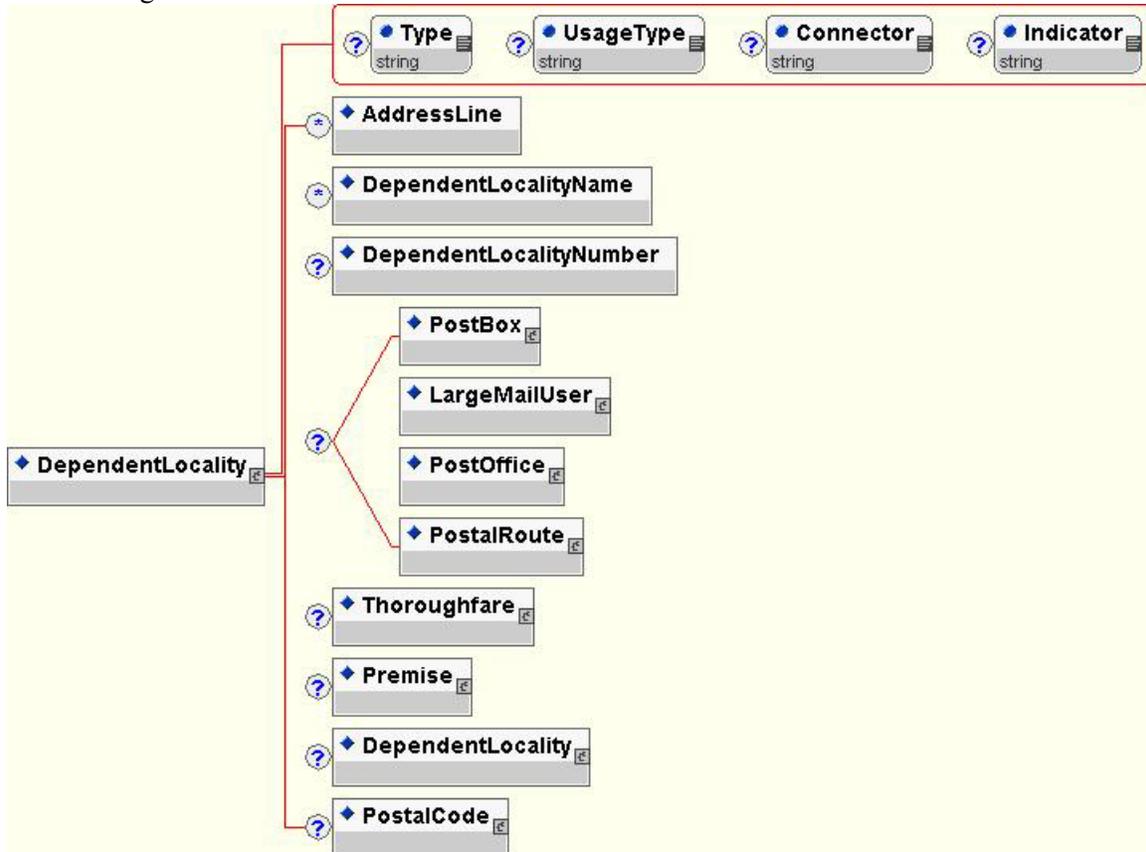
```
<xAL>
  <AddressDetails>
    <Country>
      <CountryNameCode>US</CountryNameCode>
      <CountryName>USA</CountryName>
      <AdministrativeArea>
        <AdministrativeAreaName Type="Code">CO</AdministrativeAreaName>
      <Locality>
        <LocalityName>BOULDER</LocalityName>
      <Thoroughfare>
        <ThoroughfareNumber>43</ThoroughfareNumber>
        <ThoroughfarePreDirection>WEST</ThoroughfarePreDirection>
        <ThoroughfareName>ARCHER</ThoroughfareName>
        <ThoroughfareTrailingType>Street</ThoroughfareTrailingType>
      <Premise Type="BUILDING">
        <PremiseName>CARNEGIE VIII</PremiseName>
        <SubPremise Type="BLOCK">
          <SubPremiseNumber>C</SubPremiseNumber>
          <SubPremise Type="STE">
            <SubPremiseNumber>5</SubPremiseNumber>
            <SubPremise Type="FLOOR">
              <SubPremiseNumber>4</SubPremiseNumber>
            </SubPremise>
          </SubPremise>
        </SubPremise>
      </Premise>
    </Thoroughfare>
    <PostalCode>
      <PostalCodeNumber>80302</PostalCodeNumber>
      <PostalCodeNumberExtension
        Type="DeliveryPointSuffix">4598</PostalCodeNumberExtension>
    </PostalCode>
  </Locality>
</AdministrativeArea>
</Country>
</AddressDetails>
</xAL>
```

## 7.16 DependentLocality Element

DependentLocality Element is used to define the dependent locality in an address in detail.

A DependentLocality element is used by the following elements:

- Locality
- DependentLocality (recursive)
- Thoroughfare.



Address Elements	xAL Elements (XML Tags)	Description
Dependent Locality	<b>DependentLocality</b>	This element is a container. This element has sub-elements to define the dependent locality in an address. Can occur multiple times and is optional (0 or more). A dependent locality is normally used in conjunction with a locality. Dependent localities are Districts within cities/towns, locality divisions, postal divisions of cities, suburbs, etc. DependentLocality is a recursive element, but no nesting deeper than two normally exists (Locality->DependentLocality->DependentLocality). This element provides the following attributes: <i>Type</i> : Defines the type of the dependent locality and is optional.

Address Elements	xAL Elements (XML Tags)	Description
		<p>Possible values include City, Suburb, Town, County, Province, District, etc.</p> <p><i>UsageType</i>: Defines the usage of the area as sometimes locations must be distinguished between postal system, and physical locations as defined by a political system. This attribute is optional.</p> <p><i>Connector</i>: Defines the connector used when dependent locality is used in conjunction with a locality and is optional. Example: “VIA” as in HILL TOP VIA PARISH where “Hill Top” is the dependent locality and “Parish” is the locality.</p> <p><i>Indicator</i>: Defines the indicator used to define the type of dependent locality and is optional. Example: Erode (Dist) where the indicator is (Dist) which means Erode is the name of the admin. Area and (Dist) indicates that it is a “District”.</p>
Free format address line	AddressLine	This element can be used to represent the dependent locality details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Name of dependent locality	DependentLocalityName	<p>This is a sub-element of the element “DependentLocality”. This element can occur multiple times (0 or more) and is optional. This element defines name of the dependent locality. Can have multiple dependent locality names. Examples are: districts, wijk (Dutch), viertel (Germany), quartier (French), parish names (Jamaica), section indicator (Mexico), Ku name (Japan), etc. This element provides the following attribute:</p> <p><i>Type</i>: Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Number	DependentLocalityNumber	<p>This is a sub-element of the element “DependentLocality”. This element can occur once and is optional (0 or 1). This element defines the number of the dependent locality. This element provides the following attributes:</p> <p><i>NumberNameOccurrence</i>: Defines the occurrence of the type of dependent locality with the number and is optional. Example: SECTOR 5 is a locality within a locality say, “suburb” in India.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Post box	<b>PostBox</b>	This element is a container. See the section titled “PostBox Element”. Can occur once and is optional (0 or 1).
Large mail user	<b>LargeMailUser</b>	This element is a container. See the section titled “LargeMailUser Element”. Can occur once and is optional (0 or 1).
Post office	<b>PostOffice</b>	This element is a container. See the section titled “PostOffice Element”. Can occur once and is optional (0 or 1).
Postal Route	<b>PostalRoute</b>	This element is a container. See the section titled “PostalRoute Element”. Can occur once and is optional (0 or 1).
Thoroughfare	<b>Thoroughfare</b>	This element is a container. See the section titled “Thoroughfare

<b>Address Elements</b>	<b>xAL Elements (XML Tags)</b>	<b>Description</b>
		Element". Can occur once and is optional (0 or 1).
Premise	<b>Premise</b>	This element is a container. See the section titled "Premise Element". Can occur once and is optional (0 or 1).
Dependent Locality	<b>DependentLocality</b>	This element is a container. This is recursive and see "DependentLocality Element" above.
Postal Code	<b>PostalCode</b>	This element is a container. See the section titled "PostalCode Element". Can occur once and is optional (0 or 1).

### 7.16.1 Example 1

**21 Karpagambal Nagar, Via-Thiruvanmiyur, Kottivakkam (PO), Chennai 600041, Tamilnadu, India**

```
<xAL>
<AddressDetails>
  <Country>
    <CountryName>India</CountryName>
    <AdministrativeArea Type="State">
      <AdministrativeAreaName>Tamilnadu</AdministrativeAreaName>
      <Locality>
        <LocalityName>Thiruvanmiyur</LocalityName>
        <PostOffice>
          <PostOfficeName>Kottivakkam</PostOfficeName>
          <PostalCode>
            <PostalCodeNumber>600 041</PostalCodeNumber>
          </PostalCode>
        </PostOffice>
        <DependentLocality Type="Suburb" Connector="Via">
          <DependentLocalityName>Karpagambal Nagar
          </DependentLocalityName>
          <Premise Type="House">
            <PremiseNumber>21</PremiseNumber>
          </Premise>
        </DependentLocality>
      </Locality>
    </AdministrativeArea>
  </Country>
</AddressDetails>
</xAL>
```

## 7.16.2 Example 2

**LOT 1  
DIGGLES ROAD MS 62  
MOUNT MARSHALL VIA WARWICK  
QLD 4370**

```
<xAL>
  <AddressDetails>
    <AdministrativeArea Type="State">
      <AdministrativeAreaName
        Type="Abbreviation">QLD</AdministrativeAreaName>
    <Locality>
      <LocalityName>WARWICK</LocalityName>
      <DependentLocality Connector="VIA" Type="Town">
        <DependentLocalityName>MOUNT MARSHALL</DependentLocalityName>
        <PostOffice Type="Mail Service">
          <PostOfficeNumber Indicator="MS">62</PostOfficeNumber>
        </PostOffice>
        <Thoroughfare>
          <ThoroughfareName>DIGGLES</ThoroughfareName>
          <ThoroughfareTrailingType>ROAD</ThoroughfareTrailingType>
          <Premise Type="LOT">
            <PremiseNumber>1</PremiseNumber>
          </Premise>
        </Thoroughfare>
      </DependentLocality>
      <PostalCode>
        <PostalCodeNumber>4370</PostalCodeNumber>
      </PostalCode>
    </Locality>
  </AdministrativeArea>
</AddressDetails>
</xAL>
```

### 7.16.3 Example 3

#### Japan 530-0001 Osaka Prefecture Osaka City North Ku Plum Rice Field 1-2-2 the 2nd Building before the Osaka Station

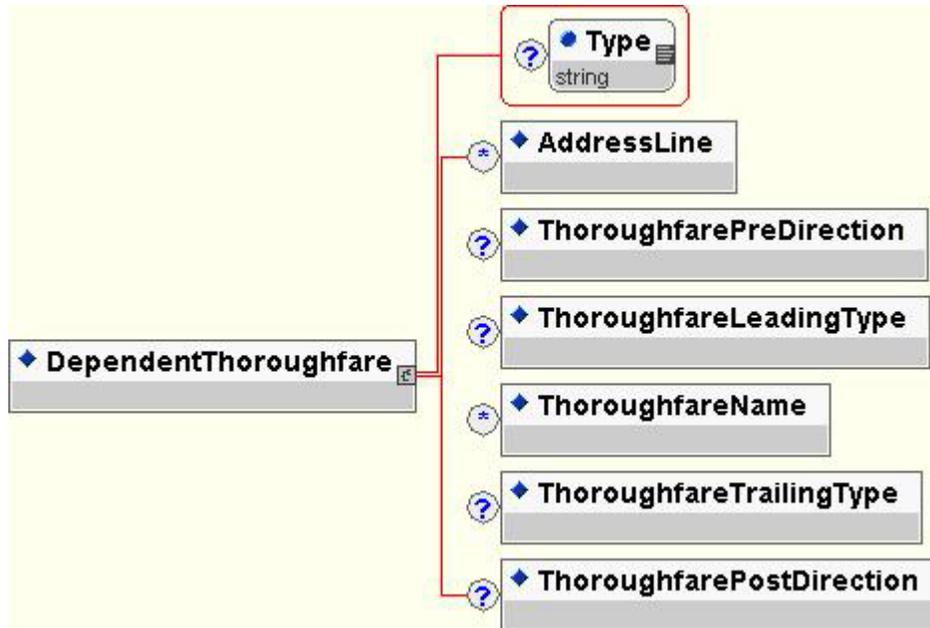
```
<AddressDetails>
  <Country>
    <CountryName>Japan</CountryName>
    <AdministrativeArea Type="Province">
      <AdministrativeAreaName>OSAKA</AdministrativeAreaName>
      <Locality Type="City">
        <LocalityName>OSAKA</LocalityName>
        <DependentLocality Type="Ward">
          <DependentLocalityName>North Ku</DependentLocalityName>
          <DependentLocality Type="SubDivision">
            <DependentLocalityName>Plum Rice Field</DependentLocalityName>
            <Premise Type="Building">
              <SubPremise Type="Block">
                <SubPremiseNumber>1</SubPremiseNumber>
                <SubPremise Type="Unit">
                  <SubPremiseNumber>2</SubPremiseNumber>
                  <SubPremise Type="Level">
                    <SubPremiseNumber>2</SubPremiseNumber>
                  </SubPremise>
                </SubPremise>
              </SubPremise>
            </SubPremise>
            <Premise Type="STATION" PremiseDependency="PREMISE"
              PremiseDependencyType="2nd BUILDING BEFORE">
              <PremiseName>OSAKA</PremiseName>
            </Premise>
          </DependentLocality>
        </DependentLocality>
      <PostalCode>
        <PostalCodeNumber>530-0001</PostalCodeNumber>
      </PostalCode>
    </Locality>
  </AdministrativeArea>
</Country>
</AddressDetails>
</xAL>
```

## 7.17 DependentThoroughfare Element

DependentThoroughfare Element is used to define the dependent Thoroughfare in an address in detail.

DependentThoroughfare element is used by the following element:

- Thoroughfare.



Address Elements	xAL Elements (XML Tags)	Description
Dependent Thoroughfare	<b>DependentThoroughfare</b>	This element is a container. This is a sub-element of “Thoroughfare” element and has sub-elements to define the dependent Thoroughfare in an address. A dependent Thoroughfare has a main Thoroughfare to be associated with. An address is sometimes represented using two Thoroughfares of which one is defined as the main Thoroughfare and the other as the dependent Thoroughfare. It is normally hard to determine which is the main Thoroughfare and the other as the dependent Thoroughfare sometimes in an address. We will use the Thoroughfare that is defined in address first as the main Thoroughfare and the later as the dependent Thoroughfare, but this is optional. This element can occur once and is optional (0 or 1). Example: CNR OF ARCHER AND MARCHER STREETS, where ARCHER STREET is the main street and MARCHER STREET is the dependent street. This element provides the following attribute: <i>Type</i> : Defines the type of dependent thoroughfare and is optional. Example: Canal, Street, Bridge, Road, etc.

Address Elements	xAL Elements (XML Tags)	Description
Free format address line	AddressLine	This element can be used to represent the dependent thoroughfare details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Name of Dependent Thoroughfare	ThoroughfareName	<p>This is a sub-element of the element “Thoroughfare”. This element can occur multiple times (0 or more) and is optional. This element defines name of the dependdnt Thoroughfare. Can have multiple dependent Thoroughfare names. This element provides the following attributes:</p> <p><i>Type</i>: Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc.</p> <p><b>NOTE:</b> When defining a Thoroughfarename, the full Thoroughfare could be defined under this tag or just the Thoroughfare name. Both the following examples are valid.</p> <pre>&lt;Thoroughfare&gt;   &lt;ThoroughfareName&gt;John Street&lt;/ThoroughfareName&gt; &lt;/Thoroughfare&gt;</pre> <p>(OR)</p> <pre>&lt;Thoroughfare&gt;   &lt;ThoroughfareName&gt;John&lt;/ThoroughfareName&gt;   &lt;ThoroughfareTrailingType&gt;Street&lt;/ThoroughfareTrailingType&gt; &lt;/Thoroughfare&gt;</pre> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Pre Direction of Dependent Thoroughfare	ThoroughfarePreDirection	<p>This is a sub-element of “Thoroughfare” element. This element can occur once and is optional (0 or 1). This element defines the direction (pre) of a dependent Thoroughfare. Example: “North” in “North Archer Street”. This element provides the following attributes:</p> <p><i>Type</i>: Defines the type of pre-direction and is optional. Example: Abbreviation</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Leading type of Dependent Thoroughfare	ThoroughfareLeadingType	<p>This is a sub-element of “Thoroughfare” element. This element can occur once and is optional (0 or 1). This element defines the type (leading) of a dependent Thoroughfare. Example: Spanish term AVENIDA in the street AVENIDA AURORA, or the French term RUE in the street RUE MOLIERE. This element provides the following attributes:</p> <p><i>Type</i>: Defines the type of and is optional.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Trailing type of Dependent Thoroughfare	ThoroughfareTrailingType	<p>This is a sub-element of “Thoroughfare” element. This element can occur once and is optional (0 or 1). This element defines the type (trailing) of a dependent Thoroughfare. Example: “LANE” in “ARCHER LANE”, “STREET” in “ARCHER STREET”. Has attributes:</p> <p><i>Type</i>: Defines the type and is optional.</p>

Address Elements	xAL Elements (XML Tags)	Description
		<i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Post Direction of Dependent Thoroughfare	ThoroughfarePostDirection	This is a sub-element of “Thoroughfare” element. This element can occur once and is optional (0 or 1). This element defines the direction (post) of a dependent Thoroughfare. Example: “North” in “Archer Street North”. This element provides the following attributes: <i>Type:</i> Defines the type and is optional. <i>Code:</i> Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.

### 7.17.1 Example

**14TH FL MLC CENTRE  
CNR GEORGE & ADELAIDE STS  
BRISBANE QLD 4000**

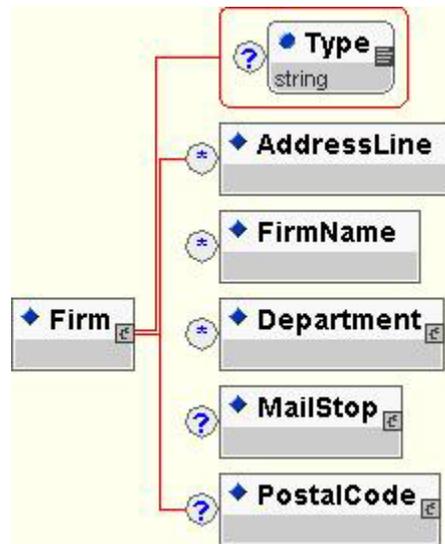
```
<xAL>
  <AddressDetails>
    <AdministrativeArea>
      <AdministrativeAreaName>QLD</AdministrativeAreaName>
    <Locality>
      <LocalityName>BRISBANE</LocalityName>
      <Thoroughfare DependentThoroughfares="Yes"
        DependentThoroughfaresIndicator="CORNER OF"
        DependentThoroughfaresConnector="AND"
        DependentThoroughfaresType="STS">
        <ThoroughfareName>GEORGE</ThoroughfareName>
        <DependentThoroughfare>
          <ThoroughfareName>ADELAIDE</ThoroughfareName>
        </DependentThoroughfare>
      <Premise Type="Building">
        <PremiseName>MLC CENTRE</PremiseName>
        <SubPremise Type="FL">
          <SubPremiseNumber Indicator="TH" IndicatorOccurrence="After"
            NumberTypeOccurrence="Before">14
          </SubPremiseNumber>
          <SubPremise Type="STE">
            <SubPremiseNumber NumberTypeOccurrence="After">140</SubPremiseNumber>
          </SubPremise>
        </SubPremise>
      </Premise>
    </Thoroughfare>
    <PostalCode>
      <PostalCodeNumber>4000</PostalCodeNumber>
    </PostalCode>
  </Locality>
</AdministrativeArea>
</AddressDetails>
</xAL>
```

## 7.18 Firm Element

Firm Element is used to define the firm in an address in detail.

Firm element is used by the following elements:

- POBox
- Thoroughfare
- Premise
- SubPremise.



Address Elements	xAL Elements (XML Tags)	Description
Firm	<b>Firm</b>	This element is a container. This element has sub-elements to define the firm in an address. Can occur multiple times and is optional (0 or more). A firm could be a company/organization, etc. Some firm names are an integral part of an address and cannot be separated. A firm can be specified as part of an address that contains a Thoroughfare or a postbox. It is therefore different from a large mail user address, which contains neither a Thoroughfare nor a postbox. For example, in xNL, if an address has a person name and a company name, then the company name is represented in xAL under this element as being part of the address. This element provides the following attribute: <i>Type</i> : Defines the type of the firm and is optional. Possible values include company, university, shop, etc.
Free format address line	AddressLine	This element can be used to represent the firm details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Name of the Firm	FirmName	This is a sub-element of the element “Firm”. This element can occur multiple times (0 or more) and is optional. This element defines the name of the firm. Can have multiple firm names. This element provides the

Address Elements	xAL Elements (XML Tags)	Description
		following attributes: <i>Type</i> : Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Name of the Department	<b>Department</b>	This element is a container. See the section titled "Department Element". Can occur multiple times and is optional (0 or more).
Postal Code	<b>PostalCode</b>	This element is a container. See the section titled "PostalCode Element". Can occur once and is optional (0 or 1).
Mail stop	<b>MailStop</b>	This element is a container. See the section titled "SubPremise Element". Can occur once and is optional (0 or 1).

### 7.18.1 Example 1

**School of Computer Science and Engineering,  
 Asian Institute of Technology, G.P.O. Box 4, Klong Luang,  
 Pathumthani 12120, Thailand**

```
<xAL>
  <AddressDetails>
    <Country>
      <CountryName>Thailand</CountryName>
      <AdministrativeArea Type="Province">
        <AdministrativeAreaName>Pathumthani</AdministrativeAreaName>
        <Locality Type="District">
          <LocalityName>Klong Luang</LocalityName>
          <PostBox Type="G.P.O">
            <PostBoxNumber>4</PostBoxNumber>
            <Firm Type="University">
              <FirmName>Asian Institute Of Technology</FirmName>
              <Department>
                <DepartmentName>School of Computer Science and Engineering
                </DepartmentName>
              </Department>
            </Firm>
          </PostBox>
        </Locality>
      </AdministrativeArea>
    </Country>
  </AddressDetails>
</xAL>
```

## 7.18.2 Example 2

**Standard Chartered Bank**  
**30th Floor, Standard Chartered Tower**  
**388 Kwun Tong Rd, Kwun Tong**  
**Hong Kong**

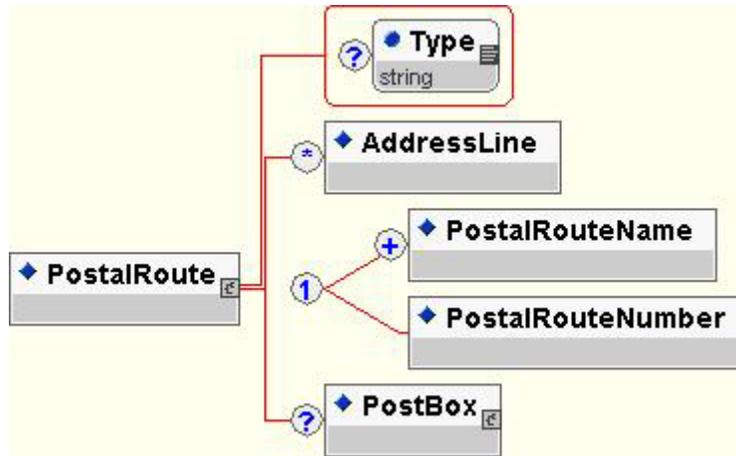
```
<xAL>
  <AddressDetails>
    <Country>
      <CountryName>Hong Kong</CountryName>
      <Locality>
        <LocalityName>Kwun Tong</LocalityName>
        <Thoroughfare>
          <ThoroughfareNumber>388</ThoroughfareNumber>
          <ThoroughfareName>Kwun Tong</ThoroughfareName>
          <ThoroughfareTrailingType>Rd</ThoroughfareTrailingType>
          <Premise Type="Building">
            <PremiseName>Standard Chartered Tower</PremiseName>
            <SubPremise Type="Floor">
              <SubPremiseNumber>30</SubPremiseNumber>
              <Firm Type="Bank">
                <FirmName>Standard Chartered Bank</FirmName>
              </Firm>
            </SubPremise>
          </Premise>
        </Thoroughfare>
      </Locality>
    </Country>
  </AddressDetails>
</xAL>
```

## 7.19 PostalRoute Element

A PostalRoute Element is used to define the postal route in a post office address.

PostalRoute element is used by the following element:

- PostOffice.



Address Elements	xAL Elements (XML Tags)	Description
Route for the postal service	<b>PostalRoute</b>	This element is a container. PostalRoute element is a sub-element of “PostOffice” element. This element has sub-elements to define the postal route in a post office based address. Can occur once and is optional (0 or 1). In some countries post offices are mobile postal services where that service delivers the posts physically to locations and they are named after the route that the service uses. This element provides the following attributes: <i>Type</i> : Defines the type of the postal route and is optional. Possible values include Thoroughfare, location, postboxes, etc.
Free format address line	AddressLine	This element can be used to represent the postal route details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Name of the Postal route	PostalRouteName	This is a sub-element of the element “PostalRoute”. This element can occur multiple times (0 or more) and is mandatory. This element defines name of the Postal route. Can have multiple postal route names. This element provides the following attributes: <i>Type</i> : Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Number of the	PostalRouteNumber	This is a sub-element of the element “PostalRoute”. This element can

<b>Address Elements</b>	<b>xAL Elements (XML Tags)</b>	<b>Description</b>
postal route		occur once (0 or 1) and is mandatory. This element defines the number of the Postal route. Example: "42" in "MS 42" where "MS" means "Mail Service". This element provides the following attribute: <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Postal Box	<b>PostBox</b>	This element is a container. See the section titled "PostBox Element". Can occur once and is optional (0 or 1).

### 7.19.1 Example 1

**Gaaton Kibbutz** {Kibbutz is a collective farming community}  
**DN Ashrat 25130** {DN Ashrat is mobile post}  
**ISRAEL**

```
<xAL>
  <AddressDetails>
    <Country>
      <CountryName>ISRAEL</CountryName>
      <Locality Type="Collective Farming Community">
        <LocalityName>Gaaton A Kibbutz</LocalityName>
        <PostOffice Type="Mobile Post">
          <PostalRoute>
            <PostalRouteName>DN Ashrat</PostalRouteName>
          </PostalRoute>
        </PostOffice>
      <PostalCode>
        <PostalCodeNumber>25130</PostalCodeNumber>
      </PostalCode>
    </Locality>
  </Country>
</AddressDetails>
</xAL>
```

### 7.19.2 Example 2

**SADDLETON ROAD RD4 PUKEKOHE NEW ZEALAND**

```
<xAL>
  <AddressDetails>
    <Country>
      <CountryName>NEW ZEALAND</CountryName>
      <Locality Type="Town">
        <LocalityName>PUKEKOHE</LocalityName>
        <PostOffice Type="Rural Delivery">
          <PostOfficeNumber Indicator="RD">4</PostOfficeNumber>
        </PostOffice>
        <Thoroughfare>
          <ThoroughfareName>SADDLETON ROAD</ThoroughfareName>
        </Thoroughfare>
      </Locality>
    </Country>
  </AddressDetails>
</xAL>
```

```

    </Country>
  </AddressDetails>
</xAL>

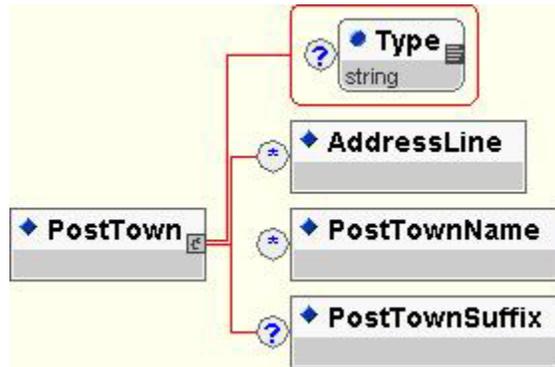
```

## 7.20 PostTown Element

A PostTown Element is used to define the postal town in an address.

PostTown element is used by the following element:

- PostalCode.



Address Elements	xAL Elements (XML Tags)	Description
Postal Town	<b>PostTown</b>	This element is a container. PostTown element is a sub-element of “PostalCode” element. This element has sub-elements to define the postal town in an address. Can occur once and is optional (0 or 1). A post town is not the same as a locality. A post town encompasses a collection of (small) localities. It can be a sub part of a locality. Example: An actual post town in “Norway” is “Bergen”. This element provides the following attribute: <i>Type</i> : Defines the type of the post town and is optional.
Free format address line	AddressLine	This element can be used to represent the post town details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Name of the Postal town	PostTownName	This is a sub-element of the element “PostTown”. This element can occur multiple times (0 or more) and is mandatory. This element defines name of the Postal town. Can have multiple postal town names. This element provides the following attributes: <i>Type</i> : Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Suffix of the	PostalTownSuffix	This is a sub-element of the element “PostTown”. This element can occur

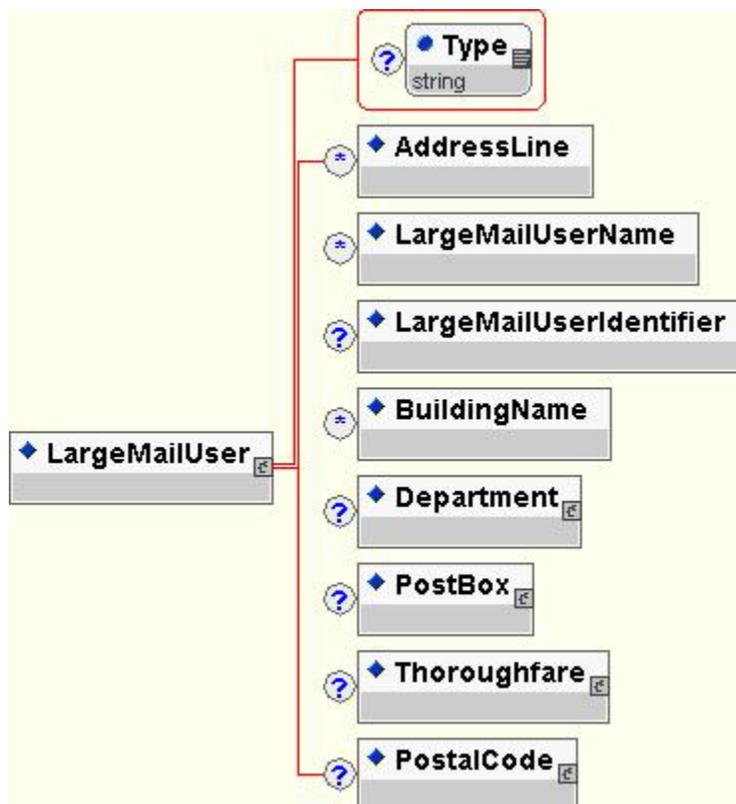
Address Elements	xAL Elements (XML Tags)	Description
postal town		<p>once and (0 or 1) and is optional. This element defines the suffix of the Postal town. Example: “GENERAL PO” in “MIAMI GENERAL PO” where “MIAMI” is the post town name. This element provides the following attribute:</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>

## 7.21 LargeMailUser Element

A LargeMailUser Element is used to define the addresses of large mail users in detail.

LargeMail element is used by the following elements:

- Locality
- DependentLocality.



Address Elements	xAL Elements (XML Tags)	Description
Large Mail User	<b>LargeMailUser</b>	This element is a container. This element has sub-elements to define the large mail user. Can occur once and is optional (0 or 1). Large mail users are postal companies, companies in some countries such as France with a cedex number, hospitals and airports with their own postal codes. Large mail users do not have a Thoroughfare name with a premise name or number in countries like the Netherlands, but have in countries like France. This element provides the following attribute: <i>Type</i> : Defines the type of the large mail user and is optional. Example: Hospital, airport, etc
Free format address line	AddressLine	This element can be used to represent the large mail user details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Name of the Large Mail User	LargeMailUserName	This is a sub-element of the element “LargeMailUser”. This element can occur multiple times (0 or more) and is optional. This element defines name of the large mail user. Can have multiple large mail user names. This element provides the following attributes: <i>Type</i> : Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Identifier for the LargeMailUser	LargeMailUserIdentifier	This is a sub-element of the element “LargeMailUser”. This element can occur once (0 or 1) and is optional. This element defines the identifier of the large mail user. An example is the CEDEX codes in France. This element provides the following attributes: <i>Type</i> : Defines the type of identifier and is optional. Example: CEDEX CODE .
Name of the Department	<b>Department</b>	This element is a container. See the section titled “Department Element”. Can occur once and is optional (0 or 1).
Name of the building	BuildingName	This element can occur multiple times (0 or more) and is optional. This element defines the name of the premise of the large mail user. This element provides the following attributes: <i>Type</i> : Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services. <i>TypeOccurrence</i> : Defines the occurrence of the name of the building and is optional. Takes two values: Before and After. Example: Building EGIS. Here name occurs after building.
Post Box	<b>PostBox</b>	This element is a container. See the section titled “PostBox Element”. Can occur once and is optional (0 or 1).
Thoroughfare	<b>Thoroughfare</b>	This element is a container. See the section titled “Thoroughfare Element”. Can occur once and is optional (0 or 1).
Postal Code	<b>PostalCode</b>	This element is a container. See the section titled “PostalCode Element”. Can occur once and is optional (0 or 1).

### 7.21.1 Example 1

#### 5 Aviation Regiment, RAAF Base, Milpo, Townsville 4814, Australia

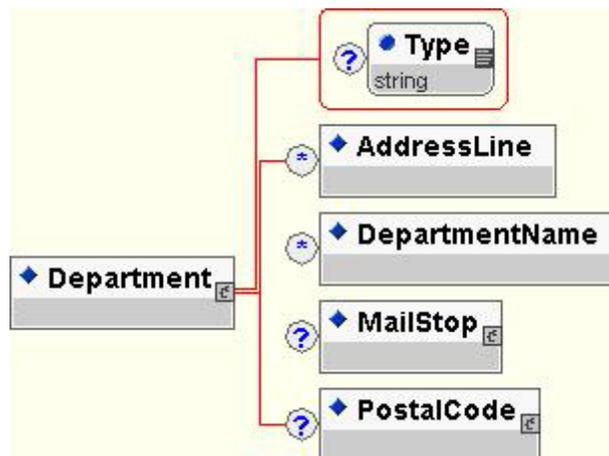
```
<xAL>
  <AddressDetails>
    <Country>
      <CountryName>Australia</CountryName>
    <Locality>
      <LocalityName>Townsville</LocalityName>
      <DependentLocality>
        <DependentLocalityName>Milpo</DependentLocalityName>
        <LargeMailUser Type="Military">
          <LargeMailUserName>RAAF</LargeMailUserName>
          <LargeMailUserIdentifier>5 Aviation Regiment
          </LargeMailUserIdentifier>
        </LargeMailUser>
      </DependentLocality>
    <PostalCode>
      <PostalCodeNumber>4814</PostalCodeNumber>
    </PostalCode>
  </Locality>
</Country>
</AddressDetails>
</xAL>
```

### 7.22 Department Element

A Department Element is used to define the department of a firm in an address in detail.

Department element is used by the following elements:

- LargeMailUser
- Firm.



Address Elements	xAL Elements (XML Tags)	Description
Department	<b>Department</b>	This element is a container. This element has sub-elements to define the department within a firm. Can occur once and is optional (0 or 1). This element provides the following attribute: <i>Type</i> : Defines the type of the department and is optional.
Free format address line	AddressLine	This element can be used to represent the department details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Name of the Department	DepartmentName	This is a sub-element of the element “Department”. This element can occur multiple times (0 or more) and is optional. This element defines name of the department. Can have multiple department names. This element provides the following attributes: <i>Type</i> : Defines the type of name and is optional. Possible values include Official, Unique, Abbreviation, OldName, Synonym, etc. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Postal Code	<b>PostalCode</b>	This element is a container. See the section titled “PostalCode Element”. Can occur once and is optional (0 or 1).
Mail stop	<b>MailStop</b>	This element is a container. See the section titled “SubPremise Element”. Can occur once and is optional (0 or 1).

### 7.22.1 Example 1

#### Officer Mess, RAAF, Townsville, Australia

```

<xAL>
  <AddressDetails>
    <Country>
      <CountryName>Australia</CountryName>
    <Locality>
      <LocalityName>Townsville</LocalityName>
      <LargeMailUser Type="Military">
        <LargeMailUserName>RAAF</LargeMailUserName>
        <Department>
          <DepartmentName>Officer Mess</DepartmentName>
        </Department>
      </LargeMailUser>
    </Locality>
  </Country>
</AddressDetails>
</xAL>

```

## 7.22.2 Example 2

**Department of Studies,  
Wayne State University, PO Box: 123, Detroit, Michigan 48202, USA**

```

<xAL>
  <AddressDetails>
    <Country>
      <CountryName>USA</CountryName>
      <AdministrativeArea Type="State">
        <AdministrativeAreaName>Michigan</AdministrativeAreaName>
        <Locality Type="City">
          <LocalityName>Detroit</LocalityName>
          <PostBox Type="PO">
            <PostBoxNumber>123</PostBoxNumber>
            <Firm Type="University">
              <FirmName>Wayne State University</FirmName>
              <Department>
                <DepartmentName>Department of Studies</DepartmentName>
              </Department>
            </Firm>
          </PostBox>
        </Locality>
      </AdministrativeArea>
    </Country>
  </AddressDetails>
</xAL>

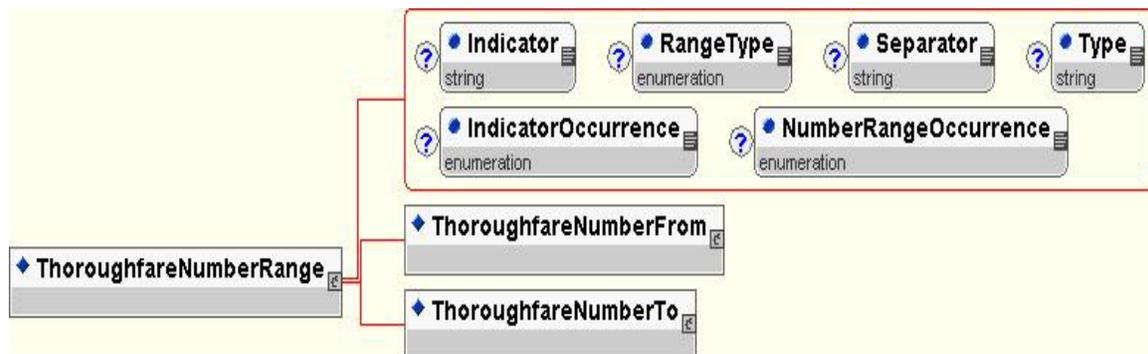
```

## 7.23 ThoroughfareNumberRange Element

A ThoroughfareNumberRange Element is used to define the Thoroughfare number range in a Thoroughfare of an address in detail.

ThoroughfareNumberRange element is used by the following element:

- Thoroughfare.



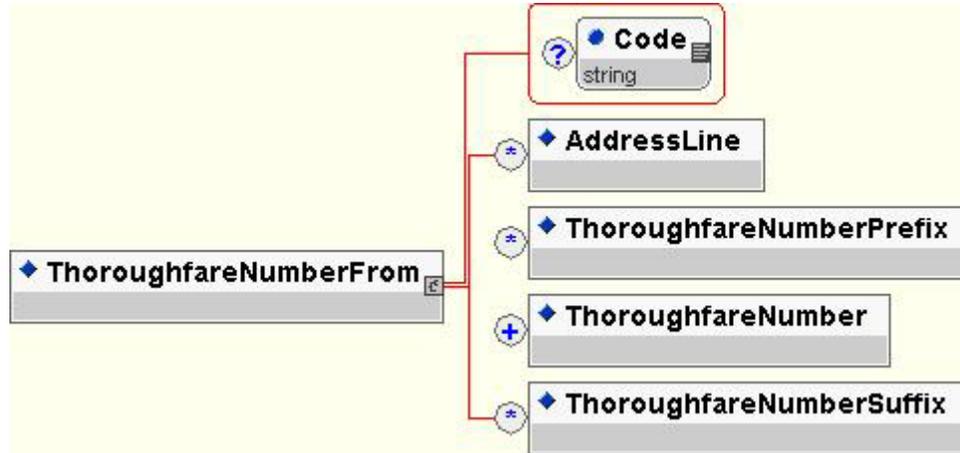
Address Elements	xAL Elements (XML Tags)	Description
Thoroughfare Number Range	<b>ThoroughfareNumberRange</b>	<p>ThoroughfareNumberRange element is a sub-element of “Thoroughfare” element. This is a container. This element has sub-elements to define the Thoroughfare range within a Thoroughfare. Can occur once and is optional (0 or 1). This element provides the following attributes:</p> <p><i>RangeType</i>: Defines the type of the Thoroughfare range and is optional. Example: “Odd” or “Even” as some Thoroughfares have “Odd” numbers on one side of the Thoroughfare and “even” numbers on the other side of the Thoroughfare as in Australia.</p> <p><i>Indicator</i>: Defines the indicator of the Thoroughfare number and is optional. Example: “No.12-14” where “No”. is the indicator.</p> <p><i>Separator</i>: Defines the separator that separates the two number and is optional. Example: “-“ in “12-14”</p> <p><i>IndicatorOccurrence</i>: Defines the occurrence of the Thoroughfare number w.r.t indicator and is optional. Takes values “Before” and “After”. Example: No.12-14 where 12-14 occurs “After” Indicator.</p> <p><i>NumberRangeOccurrence</i>: Defines the occurrence of the range in conjunction with the thoroughfare name and is optional. Takes the following values: BeforeName, AfterName, BeforeType, and AfterType. For example “25-27” in “25-27 Archer Street” occurs before name.</p> <p><i>Type</i>: Defines the type of number range and is optional. Example: Old, new.</p>
Starting number of the Thoroughfare number range	<b>ThoroughfareNumberFrom</b>	<p>This is a sub-element of the element “ThoroughfareNumberRange”. This is a container. This element can occur once and is mandatory. This element has sub-elements to define the starting number of the Thoroughfare number range. See “ThoroughfareNumberFrom Element” section for further details.</p>
Ending number of the Thoroughfare number range	<b>ThoroughfareNumberTo</b>	<p>This is a sub-element of the element “ThoroughfareNumberRange”. This element can occur once and is mandatory. This element is a container. This element has sub-elements to define the ending number of the Thoroughfare number range. See “ThoroughfareNumberTo Element” section for further details.</p>
Free format address line	AddressLine	<p>This element can be used to represent the Thoroughfare number range details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.</p>

## 7.24 ThoroughfareNumberFrom Element

A ThoroughfareNumberFrom Element is used to define the starting value of the Thoroughfare number in a ThoroughfareNumberRange of an address in detail.

ThoroughfareNumberRangeFrom element is used by the following element:

- ThoroughfareNumberRange.



Address Elements	xAL Elements (XML Tags)	Description
Thoroughfare Number from	<b>ThoroughfareNumberFrom</b>	This is a sub-element of the element “ThoroughfareNumberRange”. This element can occur once and is mandatory. This element is a container and has sub-elements to define the starting number of the thoroughfare number range.
Starting number of the Thoroughfare Number	ThoroughfareNumber	This is a sub-element of “ThoroughfareNumberFrom” element. This element can occur multiple times and at least once (1 or more). This element defines the starting number of a Thoroughfare number range. Example: “23” in “23-25” Archer Street. This element provides the following attributes: <i>NumberType</i> : Not applicable in this case. <i>Type</i> : Defines the type of number and is optional. Example: Old, new, etc. <i>Indicator</i> : Defines the indicator of the Thoroughfare number and is optional. Example: “No.12” where “No.” is the indicator. <i>IndicatorOccurrence</i> : Defines the occurrence of the Thoroughfare number w.r.t indicator and is optional. Takes values “Before” and “After”. Example: “No.12” where “12” occurs After Indicator. <i>NumberOccurrence</i> : Defines the occurrence of the number in Thoroughfare data and is optional. Number can occur before or after the thoroughfare name or before or after thoroughfare type. Takes four values: BeforeName   AfterName   BeforeType   AfterType. <i>Code</i> : Some postal services use a special code to define the element.

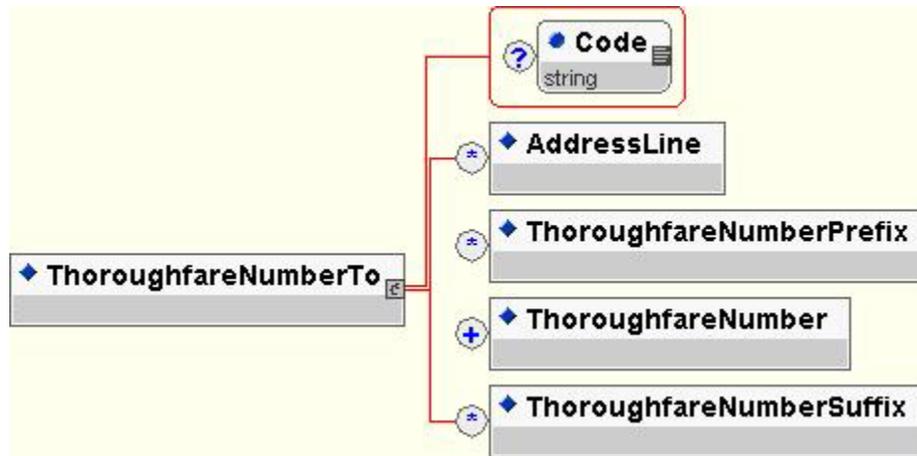
Address Elements	xAL Elements (XML Tags)	Description
		Example: ECCMA Code Tables for postal services.
Prefix of a Thoroughfare number	ThoroughfareNumberPrefix	<p>This is a sub-element of “ThoroughfareNumberFrom” element. This element can occur multiple times and is optional (0 or more). This element defines the prefix of a number for a Thoroughfare Number range starting number. Example: “A” in “23A”. Has an attribute:</p> <p><i>NumberPrefixSeparator</i>: Defines the separator between a number and prefix if there is one and is optional. Example: “A-12”, where “12” is the number and “A” is the prefix and “-“ is the separator. This element provides the following attributes:</p> <p><i>Type</i>: Defines the type and is optional.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Suffix of a Thoroughfare number	ThoroughfareNumberSuffix	<p>This is a sub-element of “Thoroughfare” element. This element can occur multiple times and is optional (0 or more). This element defines the suffix of a number for a Thoroughfare. Example: “A” in “14A Archer Street”. This element provides the following attributes:</p> <p><i>NumberSuffixSeparator</i>: Defines the separator between a number and suffix if there is one and is optional. Example: “12-A”, where “12” is the number and A is the suffix and “-“ is the separator.</p> <p><i>Type</i>: Defines the type and is optional.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Free format address line	AddressLine	<p>This element can be used to represent the Thoroughfare number range details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.</p>

## 7.25 ThoroughfareNumberTo Element

A ThoroughfareNumberTo Element is used to define the end value of the thoroughfare number range in a ThoroughfareNumberRange of an address in detail.

ThoroughfareNumberRangeTo element is used by the following element:

- ThoroughfareNumberRange.



Address Elements	xAL Elements (XML Tags)	Description
Thoroughfare Number To	<b>ThoroughfareNumberTo</b>	This is a sub-element of the element “ThoroughfareNumberRange”. This element can occur once and is mandatory. This element is a container and has sub-elements to define the ending number of the thoroughfare number range.
Ending number Number of the Thoroughfare Number range	ThoroughfareNumber	This is a sub-element of “ThoroughfareNumberTo” element. This element can occur multiple times and at least once (1 or more). This element defines the ending number of a Thoroughfare number range. Example: “25” in “23-25 Archer Street”. This element provides the following attributes: <i>NumberType</i> : Not applicable in this case. <i>Type</i> : Defines the type of number and is optional. Example: Old, new, etc. <i>Indicator</i> : Defines the indicator of the Thoroughfare number and is optional. Example: “No.12” where “No.” is the indicator. <i>IndicatorOccurrence</i> : Defines the occurrence of the Thoroughfare number w.r.t indicator and is optional. Takes values “Before” and “After”. Example: “No.12” where “12” occurs After Indicator. <i>NumberOccurrence</i> : Defines the occurrence of the number in Thoroughfare data and is optional. Number can occur before or after the thoroughfare name or before or after thoroughfare type. Takes four values: BeforeName   AfterName   BeforeType   AfterType. <i>Code</i> : Some postal services use a special code to define the element.

Address Elements	xAL Elements (XML Tags)	Description
		Example: ECCMA Code Tables for postal services.
Prefix of a Thoroughfare number	ThoroughfareNumberPrefix	<p>This is a sub-element of “ThoroughfareNumberTo” element. This element can occur multiple times and is optional (0 or more). This element defines the prefix of a number for a Thoroughfare Number range starting number. Example: A in 23A. This element provides the following attributes:</p> <p><i>NumberPrefixSeparator</i>: Defines the separator between a number and prefix if there is one and is optional. Example: A-12, where 12 is the number and A is the prefix and “-“ is the separator. Has the following attributes:</p> <p><i>Type</i>: Defines the type and is optional.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Suffix of a Thoroughfare number	ThoroughfareNumberSuffix	<p>This is the sub-element of “Thoroughfare” element. This element can occur multiple times and is optional (0 or more). This element defines the suffix of a number for a Thoroughfare. Example: “A” in 14A Archer Street. Has an attribute:</p> <p><i>NumberSuffixSeparator</i>: Defines the separator between a number and suffix if there is one and is optional. Example: 12-A, where 12 is the number and A is the suffix and “-“ is the separator.</p> <p><i>Type</i>: Defines the type and is optional.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Free format address line	AddressLine	This element can be used to represent the Thoroughfare number to details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.

## 7.25.1 Example

**Chatswood Grove, Block A, Level 2, Suite 1A, 12-14 Malvern Avenue,  
Adjacent to Chatswood Chase, Chatswood, NSW 2067, Australia**

```
<xAL>
  <AddressDetails>
    <Country>
      <CountryName>Australia</CountryName>
    <AdministrativeArea>
      <AdministrativeAreaName>NSW</AdministrativeAreaName>
    <Locality>
      <LocalityName>Chatswood</LocalityName>
    <Thoroughfare>
      <ThoroughfareNumberRange RangeType="Even" Separator="-">
        <ThoroughfareNumberFrom>
          <ThoroughfareNumber>12</ThoroughfareNumber>
        </ThoroughfareNumberFrom>
        <ThoroughfareNumberTo>
          <ThoroughfareNumber>14</ThoroughfareNumber>
        </ThoroughfareNumberTo>
      </ThoroughfareNumberRange>
      <ThoroughfareName>Malvern</ThoroughfareName>
      <ThoroughfareTrailingType>Avenue</ThoroughfareTrailingType>

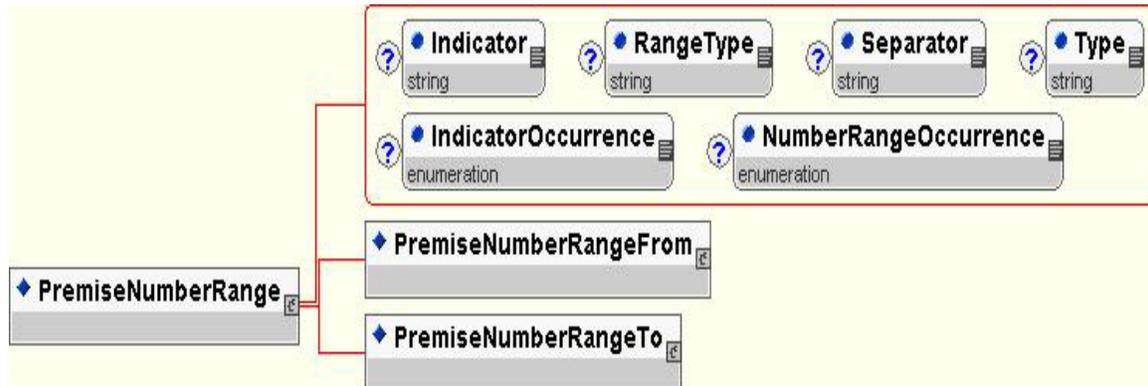
      <Premise Type="Building">
        <BuildingName>CHASTWOOD GROVE</BuildingName>
        <SubPremise Type="BLOCK">
          <SubPremiseNumber>A</SubPremiseNumber>
          <SubPremise Type="LEVEL">
            <SubPremiseNumber>2</SubPremiseNumber>
            <SubPremise Type="SUITE">
              <SubPremiseNumber>1</SubPremiseNumber>
              <SubPremiseNumberSuffix>A</SubPremiseNumberSuffix>
            </SubPremise>
          </SubPremise>
        </SubPremise>
        <Premise Type="SHOPPING CENTRE"
          PremiseDependency="PREMISE"
          PremiseDependencyType="ADJACENT TO">
          <PremiseName>Chatswood Grove</PremiseName>
        </Premise>
      </Premise>
    </Thoroughfare>
    <PostalCode>
      <PostalCodeNumber>2067</PostalCodeNumber>
    </PostalCode>
  </Locality>
</AdministrativeArea>
</Country>
</AddressDetails>
</xAL>
```

## 7.26 PremiseNumberRange Element

A PremiseNumberRange Element is used to define the premise number range in a Premise of an address in detail.

PremiseNumberRange element is used by the following element:

- Premise.



Address Elements	xAL Elements (XML Tags)	Description
Premise Number Range	<b>PremiseNumberRange</b>	<p>PremiseNumberRange element is a sub-element of “Premise” element. This element is a container and has sub-elements to define the Premise number range within a Premise. Can occur once and is optional (0 or 1). This element provides the following attributes:</p> <p><i>RangeType</i>: Defines the type of the premise number range and is optional. Takes two values: Odd, Even. Example: “Odd” or “Even” as some premise numbers have “Odd” numbers on one side of the premise and “even” numbers on the other side of the premise.</p> <p><i>Indicator</i>: Defines the indicator of the premise number and is optional. Example: “No.12-14” where “No.” is the indicator.</p> <p><i>Separator</i>: Defines the separator that separates the two numbers and is optional. Example: “-“ in “12-14”.</p> <p><i>Type</i>: Defines the type of number range and is optional. Example: Old, new.</p> <p><i>IndicatorOccurrence</i>: Defines the occurrence of the premise number w.r.t indicator and is optional. Takes values “Before” and “After”. Example: “No.12-14” where “12-14” occurs After Indicator.</p> <p><i>NumberRangeOccurrence</i>: Defines the occurrence of the range in conjunction with the premise name and is optional. Takes the following values: BeforeName, AfterName, BeforeType, and AfterType. For example “25-27” in “25-27 EGIS Building” occurs before name.</p>
Starting number of the Premise number range	<b>PremiseNumberFrom</b>	This is a sub-element of the element “PremiseNumberRange”. This element can occur once and is mandatory. This element is a container consisting of sub-elements to define the starting number of the premise range.
Ending number	<b>PremiseNumberTo</b>	This is a sub-element of the element “PremiseNumberRange”. This

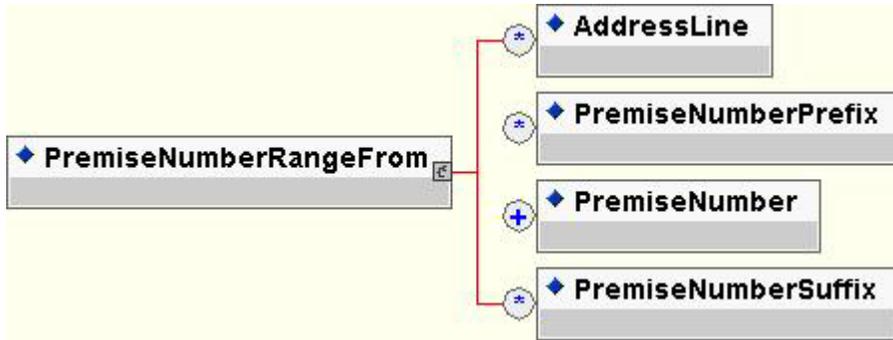
Address Elements	xAL Elements (XML Tags)	Description
of the Premise number range		element can occur once and is mandatory. This element is a container consisting of sub-elements to define the ending number of the Premise number range.

### 7.27 PremiseNumberFrom Element

A PremiseNumberFrom Element is used to define the starting value of the Premise number in a PremiseNumberRange of an address in detail.

PremiseNumberRangeFrom element is used by the following element:

- PremiseNumberRange.



Address Elements	xAL Elements (XML Tags)	Description
Premise Number from	<b>PremiseNumberFrom</b>	This is sub-element of the element “PremiseNumberRange”. This element can occur once and is mandatory. This element is a container and has sub-elements to define the starting number of the premise number range.
Starting number Number of the Premise Number range	PremiseNumber	This is a sub-element of “PremiseNumberFrom” element. This element can occur multiple times and at least once (1 or more). This element defines the starting number of a Premise number range. Example: “23” in “23-25 EGIS Building”. This element provides the following attributes: <i>NumberType</i> : This attribute is not applicable here. <i>Type</i> : Defines the type of number and is optional, Example: Old, new, etc. <i>Indicator</i> : Defines the indicator of the number and is optional. Example: “No.” in “House No.12” where “House” is premise type and “12” is the premise number. <i>IndicatorOccurrence</i> : Defines the occurrence of the indicator in association with the number and is optional. Can only take values “Before” and “After”. Example: “No.” occurs before number “12” in

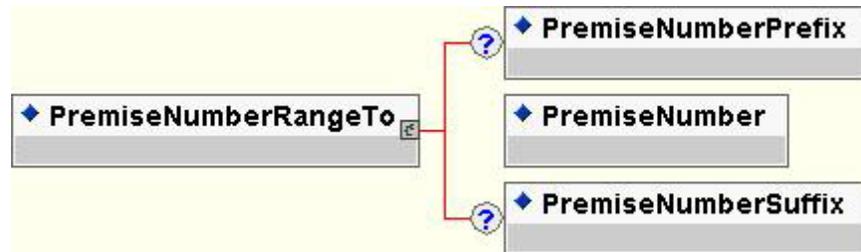
Address Elements	xAL Elements (XML Tags)	Description
		<p>“No.12”.</p> <p><i>NumberTypeOccurrence</i>: Defines the occurrence of the number in association with the premise type and is optional. Can only take values “Before” and “After”. Example: “12” in “BUILDING 12” occurs after premise type “BUILDING”.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Prefix of a Premisenumber	PremiseNumberPrefix	<p>This is a sub-element of “PremiseNumberFrom” element. This element can occur multiple times and is optional (0 or more). This element defines the prefix of a number for a Premise Number range starting number. Example: A in 23A. This element provides the following attributes:</p> <p><i>NumberPrefixSeparator</i>: Defines the separator between a number and prefix if there is one and is optional. Example: A-12, where 12 is the number and “A” is the prefix and “-“ is the seperator.</p> <p><i>Type</i>: Defines the type of number prefix and is optional. Example: Old, new</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Suffix of a Premise number	PremiseNumberSuffix	<p>This is a sub-element of “PremiseNumberFrom” element. This element can occur multiple times and is optional (0 or more). This element defines the suffix of a number for a Premise. Example: “A” in 14A EGIS Building. This element provides the following attributes:</p> <p><i>NumberSuffixSeparator</i>: Defines the separator between a number and prefix if there is one and is optional. Example:12-A, where 12 is the number and “A” is the suffix and “-“ is the separator.</p> <p><i>Type</i>: Defines the type of number suffix and is optional. Example: Old, new</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Free format address line	AddressLine	<p>This element can be used to represent the Premise number to details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.</p>

## 7.28 PremiseNumberTo Element

A PremiseNumberTo Element is used to define the end value of the Premise number range in a PremiseNumberRange of an address in detail.

PremiseNumberRangeTo element is used by the following element:

- PremiseNumberRange.



Address Elements	XAL Elements (XML Tags)	Description
Premise Number To	<b>PremiseNumberTo</b>	This is a sub-element of the element “PremiseNumberRange”. This element can occur once and is mandatory. This element is a container and has sub-elements to define the ending number of the Premise range.
Ending number Number of the Premise Number range	PremiseNumber	This is a sub-element of “PremiseNumberTo” element. This element can occur multiple times and at least once (1 or more). This element defines the ending number of a Premise number range. Example: 25 in 23-25 EGIS BUILDING. This element provides the following attributes: <i>NumberType</i> : This attribute is not applicable here. <i>Type</i> : Defines the type of number and is optional, Example: Old, new, etc <i>Indicator</i> : Defines the indicator of the number and is optional. Example: “No.” in “House No.12” where “House” is premise type and “12” is the premise number. <i>IndicatorOccurrence</i> : Defines the occurrence of the indicator in association with the number and is optional. Can only take values “Before” and “After”. Example: “No.” occurs before number “12” in “No.12”. <i>NumberTypeOccurrence</i> : Defines the occurrence of the number in association with the premise type and is optional. Can only take values “Before” and “After”. Example: “12” in “BUILDING 12” occurs after premise type “BUILDING”. <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Prefix of a Premise number	Premise NumberPrefix	This is a sub-element of “PremiseNumberTo” element. This element can occur multiple times and is optional (0 or more). This element defines the prefix of a number for a Premise Number range starting number. Example: A in 23A. This element provides the following attributes: <i>NumberPrefixSeparator</i> : Defines the separator between a number and

Address Elements	XAL Elements (XML Tags)	Description
		<p>prefix if there is one and is optional. Example: “A-12”, where “12” is the number and “A” is the prefix and “-“ is the separator.</p> <p><i>Type</i>: Defines the type of number prefix and is optional. Example: Old, new.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Suffix of a Premise number	PremiseNumberSuffix	<p>This is a sub-element of “Premise” element. This element can occur multiple times and is optional (0 or more). This element defines the suffix of a number for a Premise. Example: “A” in “14A EGIS BUILDING”. This element provides the following attributes:</p> <p><i>NumberSuffixSeparator</i>: Defines the separator between a number and prefix if there is one and is optional. Example:12-A, where 12 is the number and “A” is the suffix and “-“ is the separator.</p> <p><i>Type</i>: Defines the type of number suffix and is optional. Example: Old, new.</p> <p><i>Code</i>: Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.</p>
Free format address line	AddressLine	<p>This element can be used to represent the Premise number From details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.</p>

## 7.28.1 Example 1

**Building C1A-C10A**  
**46 Brynmaer Road**  
**LONDON SW11 4EW**  
**United Kingdom**

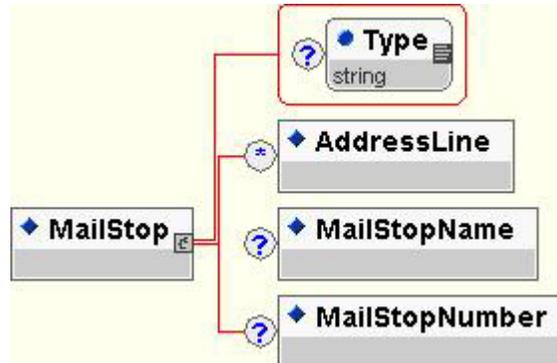
```
<xAL>
  <AddressDetails>
    <Country>
      <CountryName>United Kingdom</CountryName>
      <Locality Type="City">
        <LocalityName>LONDON</LocalityName>
        <Thoroughfare>
          <ThoroughfareNumber>46</ThoroughfareNumber>
          <ThoroughfareName>BRYNMAER ROAD</ThoroughfareName>
          <Premise Type="Building">
            <PremiseName>BUILDING</PremiseName>
            <PremiseNumberRange Separator="-">
              <PremiseNumberRangeFrom>
                <PremiseNumber>C1</PremiseNumber>
                <PremiseNumberSuffix>A</PremiseNumberSuffix>
              </PremiseNumberRangeFrom>
              <PremiseNumberRangeTo>
                <PremiseNumber>C10</PremiseNumber>
                <PremiseNumberSuffix>A</PremiseNumberSuffix>
              </PremiseNumberRangeTo>
            </PremiseNumberRange>
          </Premise>
        </Thoroughfare>
        <PostalCode>
          <PostalCodeNumber>SW11 4EW</PostalCodeNumber>
        </PostalCode>
      </Locality>
    </Country>
  </AddressDetails>
</xAL>
```

## 7.29 MailStop Element

This element is used to define the mail stop of an address in detail.

MailStop element is used by:

- Premise
- SubPremise
- Firm, and
- Department.



Address Elements	xAL Elements (XML Tags)	Description
Mail Stop	<b>MailStop</b>	This element defines the mail stop of an address. This element is a container and has sub-elements to define the mail stop details. This element is a container and has sub-elements to define the ending number of the Premise range. This element provides the following attributes: <i>Type</i> : Defines the type of mailstop and is optional. Example: Personal box, pigeon box, etc.
Free format address line	AddressLine	This element can be used to represent Mailstop details and the remaining parts of the address as a free format text and is optional and can occur multiple times. See “AddressLine Element” section for more details.
Name of the mail stop	MailStopName	This is a sub-element of “MailStop” element. This element can occur once and is optional (0 or 1). This element defines the name of the mail stop. Example: “MS” in “MS 25”. This element provides the following attributes: <i>Type</i> : Defines the type of mail stop name and is optional. Example: Old, new <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.
Number of the mail stop	MailStopNumber	This is a sub-element of “MailStop” element. This element can occur once and is optional (0 or 1). This element defines the number of the mail stop. Example: “25” in “MS 25”. This element provides the following attributes: <i>NameNumberSeparator</i> : Defines the separator between the name and number. Example: “-“ in “MS-125” <i>Code</i> : Some postal services use a special code to define the element. Example: ECCMA Code Tables for postal services.

## **8.0 More Address Examples**

Several different types of addresses and global address examples for xAL are given in the sample XML files.

## **9.0 References**

- Name and Address Markup Language (NAML) Specifications document (Version 1-1.3), MasterSoft International, April 2000
- xNAL Specifications Document for W3C DTD/Schema Version 2.0, OASIS CIQ TC, <http://www.oasis-open.org/committees/ciq>, May 2002
- xNL Specifications Document for W3C DTD/Schema Version 2.0, OASIS CIQ TC, <http://www.oasis-open.org/committees/ciq>, May 2002
- Global Address Specifications document (Version 1-1.2), December 2000
- Ram Kumar, XML Standards for Customer Information Quality Management, XML Journal, Vol.1, No.2, July 2000, pp.41-45.
- Graham Rhind, "The Global Source Book for Address Data Management, 1998
- The Universal Name and Address Format (UNA), MasterSoft International, 1992.
- Using the UN/PROLST Version 1.1, May 2001
- GCA-ADIS Address Management Specifications Document, March 2001
- Australian Standard (AS 4590-1999) for Interchange of Client Information
- Postal Services – Address data bases, CEN TC 331 Document, December 2000
- Ram Kumar, XML Standards for Global Customer Information Management, DMReview, Vol.12, No.5, May 2002