

# eADDRESS

*a public domain XML and JSON format for exchanging electronic addresses between service providers*

version 2.2	2024-11-20	Added identifier type NETSERVICEID Added ICD codes in IdentifierType, e.g. 0216 is the same as OVT. Added LastModified field in Organization.
version 2.1		Internal unpublished version
version 2.0	2020-04-17	Changed the Organization/CountryCode to mandatory. Added Organization/Identifier attributes PLUSGIRONUMMER and BANKGIRONUMMER
version 1.13	2019-05-16	Added PrimaryAddress Boolean element to eAddress for indicating organisations's preferred address. Added an OwnerRef attribute to eAddress for storing per-owner private information about an address
version 1.12	2018-02-19	Apix: Added (opt) AddressOwnerServiceID to eAddress structure
version 1.11	2017-11-16	Apix: Fix for missing ISO3166-2 codes. Apix: Added Contacts to eAddress element Apix: Changed Additional name from 0..1 to 0..n

<b>version 1.1</b>	<b>2017-10-23</b>	<b>VLF: Added support for authorization key (for Feeniks project) VLF: Added BATCH Function attribute, eAddress Operation attribute VLF: Changed the Orgainzation/Identifier and eAddress/ID attributes TYPE/IDType to be a single value instead of a list of values. Also harmonized the values to use same definition.</b>
<b>version 1.0</b>	<b>2016-09-16</b>	<b>Apix: After comments from VLF the format is ready for version 1.0</b>
<b>version 0.4</b>	<b>2016-09-02</b>	<b>Apix: Fixed typos in xsd and added missing ID types to documentation</b>
<b>version 0.3</b>	<b>2016-03-16</b>	<b>Apix: Added CC0 copyright and Active, PermissionToPublish elements</b>
<b>version 0.2</b>	<b>2015-10-19</b>	<b>Apix,Tieto:Bug fixes and support for send addresses</b>
<b>version 0.1</b>	<b>2014-09-08</b>	<b>Apix:Initial DRAFT version for limited use</b>

## **COPYRIGHT NOTICE**

**This work is covered by the Creative Commons CC0 1.0 license.**

## **CONTACTS**

BEL Support

BEL Solutions Oy

[support@bel.fi](mailto:support@bel.fi)

+358 45 209 3223

# FILE FORMAT

## BATCH

A single Batch can contain several organizations with different types of addresses.

The default operation is to send at defined intervals all addresses to the other party and the sent addresses replace all previous addresses. (i.e. addresses existing in the previous exchange, but missing from the latest exchange are considered to be no longer valid). In this case the attribute Function is REPLACE.

If the Batch is to only change or add new data to existing data (i.e. previous sending(s)) the attribute Function is UPDATE. If this is used then the eAddress attribute Operation defines the desired function for each individual eAddress. If the previous sending(s) contained eAddresses that are not mentioned in this Batch they are considered to be valid and no changes are applied to them.

### Batch

Diagram	<pre>graph LR     Batch[Batch] --- attributes[attributes]     attributes --- Version[Version]     attributes --- Timestamp[Timestamp]     attributes --- Function[Function]     Batch --- Organization[Organization]     Organization --- Multiplicity["1..∞"]     Organization --- Label["Single Organization"]</pre>
Attributes	<div>Version</div> <p>Current version is <b>2.2</b>. This version entered production use 1.4.2025, and clients must support this version.</p> <div>Timestamp</div> <p>The creation time of the Batch as date and time with timezone</p> <div>Function</div> <p>The function of the Batch. Valid values are REPLACE and UPDATE</p>

ORGANIZATION

The Organization element describes one official entity having one or several electronic addresses.

Batch/Organization

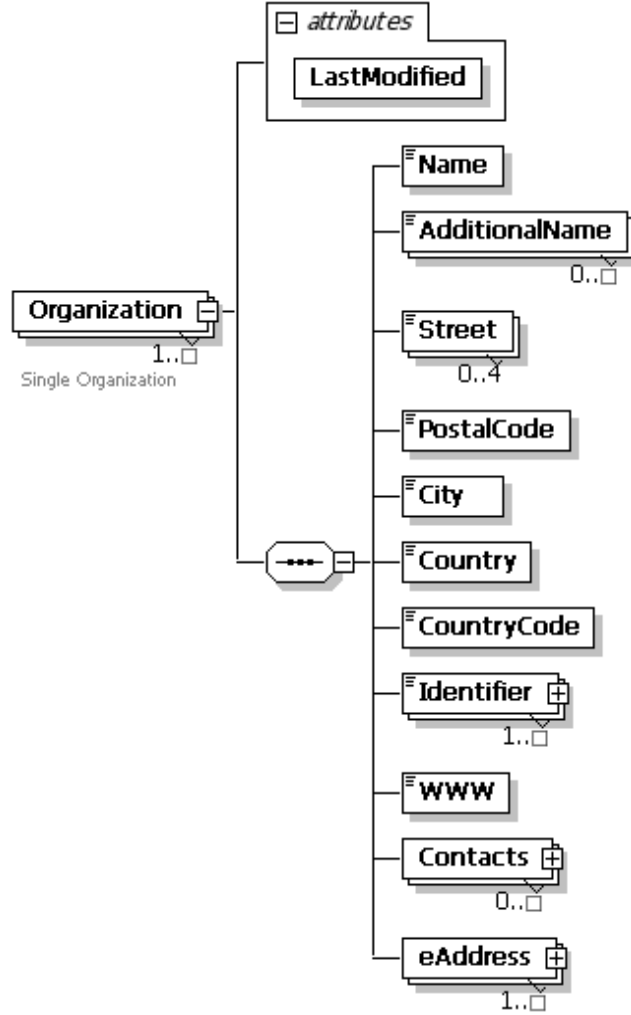

Diagram	
Attributes	
Description	The timestamp of the latest change event that has occurred under that Organization or any of its addresses, maintained by the register.
Example	"lastModified" : "2025-03-26T06:25:35.744561+02:00"


Diagram	
Description	<b>The official name of the organization as registered with the authorities</b>
Example	<code>&lt;Name&gt;Sample Company LTD.&lt;/Name&gt;</code>

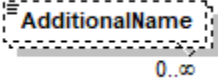
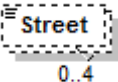
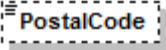

Diagram	
Description	<b>Additional names for the organization</b>
Example	<code>&lt;AdditionalName&gt;Best offers&lt;/AdditionalName&gt;</code>

Diagram	
Description	<b>The street address of the company</b>
Example	<code>&lt;Street&gt;Basic Street 12&lt;/Street&gt;</code>

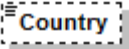
### Batch/Organization/PostalCode

Diagram	
Description	<b>The postal code of the address</b>
Example	<code>&lt;PostalCode&gt;12345&lt;/PostalCode&gt;</code>

### Batch/Organization/City

Diagram	
Description	<b>The city of the address</b>
Example	<code>&lt;City&gt;SAMPLETOWN&lt;/City&gt;</code>

### Batch/Organization/Country

Diagram	
Description	<b>The country of the address</b>
Example	<code>&lt;Country&gt;FINLAND&lt;/Country&gt;</code>

### Batch/Organization/CountryCode

Diagram	
---------	---

Description	The country code of the address as ISO 3166 code
Example	<CountryCode>FI</CountryCode>

### Batch/Organization/Identifier

Diagram	<pre> classDiagram     class Identifier {         1..∞     }     class attributes {         TYPE     }     Identifier "1..∞" --&gt; "1" attributes </pre>
Description	The official identifier for the organization given by the authority in the country of the organization. For example: In Finland y-tunnus (businessid), in Sweden Organization number.
Example	<Identifier TYPE="0212">1234567-8</Identifier >

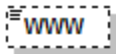
The same table is common between Organization Identifier types and eAddress ID, ServiceID and AddressOwnerServiceID types.

The following table lists identifier types and their text aliases, chiefly from eAddress version 2.0 and prior. The alias values are considered alternatives to the numeric ones, but the numeric codes are preferred if defined. When text value has no ICD equivalent, and text values are used in those cases.

Specific TYPEs may have additional formatting restrictions and can embed checksums which are validated. Allowed usage of types varies by country and the context of the identifier. For example, a BUSINESSID in Finland can't be used to identify an eAddress, but it could be used to identify an Organization. In Sweden, BUSINESSID can be used to identify both, but the actual value is formatted without a hyphen when it identifies an eAddress. The precise rules and formatting details are not described in this document.

ICD code	Text value	Description
0216	OVT	OVT identification, e.g. 003712345678 or 00071234567890
0213	VATID	VAT identification, e.g. FI12345678, SE1234567890
0212	BUSINESSID	Local business identity given by authority ("y-tunnus", or "organisationsnummer")
0088	GLN	Global Location Number
0060	DUNS	DUNS code
	PEPPOL	Code used in the PEPPOL context
	MUTUALLY AGREED	Mutually agreed organization specific identification
	OTHER	All other types of identification
9918	IBAN	IBAN (International Bank Account Number)
	BIC	BIC (Business Identifier Code)
	INTERNATIONALBUSINESSID	Business identity given by authority for international use
	PLUSGIRONUMMER	Swedish payment system identifier (also known as POSTGIRONUMMER)
	BANKGIRONUMMER	Swedish payment system identifier
0215	NETSERVICEID	OVT-like code with operator's prefix

#### Batch/Organization/WWW

Diagram	
Description	<b>The www-site of the organization</b>
Example	<b>&lt;WWW&gt;www.example.fi&lt;/WWW&gt;</b>

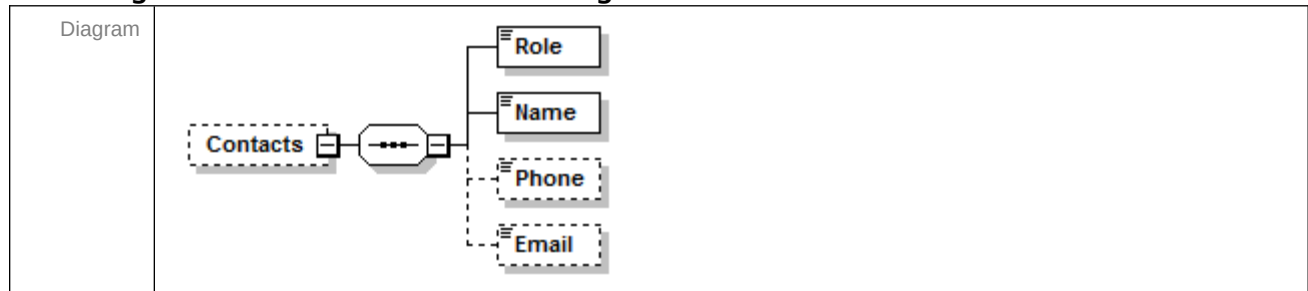


## CONTACTS

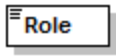
Contacts are optional information.

Contacts can be organization specific or directly related to one eAddress-entity.

### Batch/Organization/Contacts AND Batch/Organization/eAddress/Contacts



### Batch/Organization/Contacts/Role AND Batch/Organization/eAddress/Contacts/Role

Diagram	
Description	The role of the contact (TECHNICAL, SUPPORT, BUSINESS, OTHER)
Example	<Role>SUPPORT</Role>

The roles are defined as follows:


**TECHNICAL:** a technical person/entity to be contacted if there are initial technical questions about sending messages with this organization

**SUPPORT:** contact for problems during sending messages to this organization

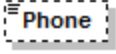
**BUSINESS:** contact for discussing the permission to send messages or business related issues

**OTHER:** contact for everything else


**Batch/Organization/Contacts/Name AND Batch/Organization/eAddress/Contacts/Name**

Diagram	
Description	The name of the contact
Example	<Name>Tom Example</Name>

**Batch/Organization/Contacts/Phone AND Batch/Organization/eAddress/Contacts/Phone**

Diagram	
Description	The phone number of the contact
Example	<Phone>00358123456789</Phone>

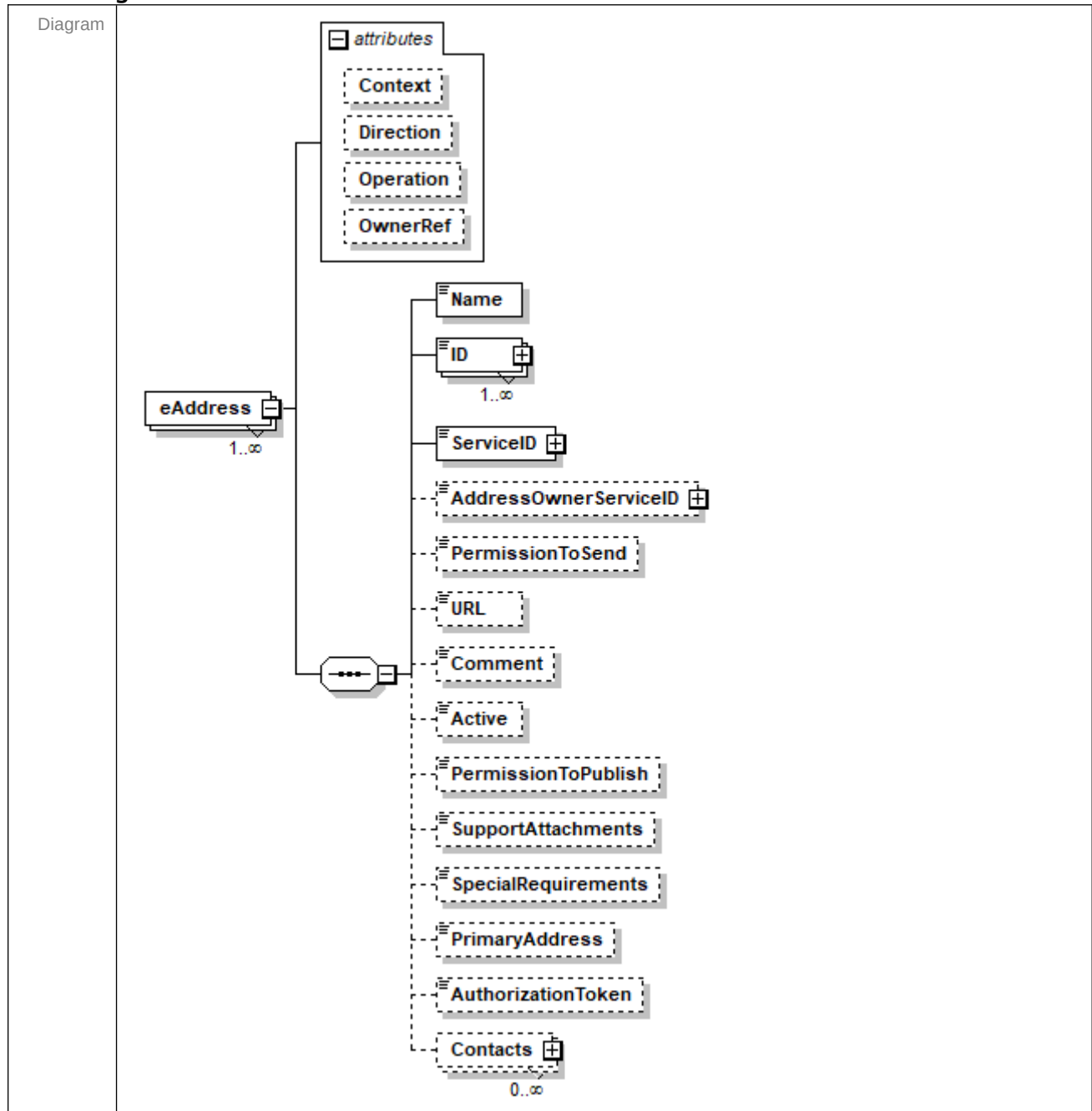
**Batch/Organization/Contacts/Email AND Batch/Organization/eAddress/Contacts/Email**

Diagram	
Description	The email address of the contact
Example	<Email> <a href="mailto:Tom.Example@example.fi">Tom.Example@example.fi</a> </Email>

## eAddress

The eAddress defines the electronic addresses for the organization.

### Batch/Organization/eAddress



eAddress defines the electronic address belonging to the organization for the defined Context and Direction.

Valid types of Context are:

<b>EINVOICE</b>	electronic invoices
<b>ORDERS</b>	Orders
<b>ORDRSP</b>	Order responses
<b>DESADV</b>	Despatch Advice
<b>PRICAT</b>	Price/product catalog
<b>OTHER</b>	Other messages (In order to be used, the usage has to be mutually agreed)

**NOTE:** If Context is not defined, the eAddress is considered to be a EINVOICE address.

Valid types of Direction are:

<b>SEND</b>	The organization uses this address when sending
<b>RECEIVE</b>	The organization uses this address when receiving

**NOTE:** If Direction is not defined, the eAddress is considered to be a RECEIVE address.

The *Operation* attribute **MUST** be used when on the Batch level the Function attribute is set to be **UPDATE**. The Operation attribute tells the receiving party how to process the record.


If the Operation is set to **NEW** the eAddress **MUST** be ADDED to the existing database of eAddresses. If the eAddress already exists in the database the entry is to be considered invalid and **MUST** be discarded.

If the Operation is set to **REPLACE** the eAddress **UPDATES** an existing eAddress in the database. If the eAddress does not exist in the database the entry is to be considered invalid and **MUST** be discarded.

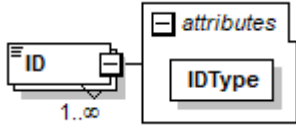
if the Operation is set to **DELETE** the eAddress is **REMOVED** from the database. If the eAddress does not exist in the database the entry is to be considered invalid and **MUST** be discarded.

*Ownerref* is an optional reference field used by the eAddress Owner. The reference is used to identify a specific eAddress at the Owner.

#### Batch/Organization/eAddress/Name

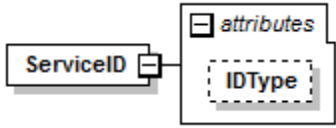
Diagram	
Description	<p>The name for the eAddress organization. This can differ from the Organization/Name for multiple addresses within the official organization.</p> <p>For example: The city of Helsinki has only one official Y-tunnus, but the different functions of the city have their own eAddresses.</p>
Example	<code>&lt;Name&gt;Apix Messaging Oy&lt;/Name&gt;</code>

#### Batch/Organization/eAddress/ID

Diagram	
Description	The identification of the organization and type of the identification
Example	<code>&lt;ID IDType="0216"&gt;003712345678&lt;/ID&gt;</code>


ID is formally allowed to repeat by specification, but in implementation, only a single ID is allowed for each eAddress. IDType is described in Organization's Identifier TYPE.

#### Batch/Organization/eAddress/ServiceID

Diagram	
Description	The identification of the service provider and the type of the identification
Example	<code>&lt;ServiceID IDType="0216"&gt;003723327487&lt;/ServiceID&gt;</code>

The electronic address is a combination of the ID and ServiceID elements. IDType is described in Organization's Identifier TYPE.

#### Batch/Organization/eAddress/AddressOwnerServiceID


Diagram	
Description	The identification of the owner of the service provided towards the end customer and the type of the identification
Example	<code>&lt;AddressOwnerServiceID IDType="0216"&gt;003723327487&lt;/ServiceID&gt;</code>

This optional element is used to identify the actual marketing identity of the service

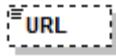
provider selling the services to end customers. The technical operator is in the ServiceID-element, but the logo, name, support and other commercial details are handed by the Address Owner.

IDType is described in Organization's Identifier TYPE.


#### Batch/Organization/eAddress/PermissionToSend

Diagram	
Description	<b>Defines if the recipient is willing to start receiving without separate prior agreement</b>
Example	<code>&lt;PermissionToSend&gt;true&lt;/PermissionToSend&gt;</code>
Note	<p><b>It is STRONGLY recommended that this element is NOT used. If the address does not accept the receipt of transmission without pre-approval the address should be marked instead in the element PermissionToPublish as False making the address "invisible" to senders without pre-knowledge of the address.</b></p> <p><b>If the eAddress is RECEIVE address and this element is missing the PermissionToSend is considered to be true.</b></p>


#### Batch/Organization/eAddress/URL

Diagram	
Description	<b>If the receiving service is based on HTTP/HTTPS solution the delivery point of the message</b>
Example	<code>&lt;URL&gt;<a href="https://as2.apix.fi/send">https://as2.apix.fi/send</a>&lt;/URL&gt;</code>

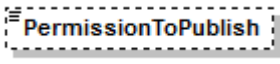
#### Batch/Organization/eAddress/Comment

Diagram	
Description	<b>A free text giving information about the eAddress</b>
Example	<code>&lt;Comment&gt;Receiving is based on AS2 protocol. See the URL.&lt;/Comment&gt;</code>


#### Batch/Organization/eAddress/Active

Diagram	
Description	<p><b>This field can be used to mark eAddress to be inactive (ie. eAddress exists, but for some reason the address is not in use).</b></p> <p><b>Useful in scenarios where the service provider has contract with the sender/receiver, but the customer takes the service in use at later stage.</b></p>
Example	<code>&lt;Active&gt;true &lt;/Active&gt;</code>

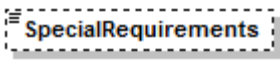
### Batch/Organization/eAddress/PermissionToPublish

Diagram	
Description	Defines if the address can be published to end-users or not. Useful in scenarios where the eAddress is intended only for a specific use and must be communicated to the sender/receiver separately. An example would be a receiving address for a debt collection agency that receives assignments through that address.
Example	<code>&lt;PermissionToPublish&gt;true&lt;/PermissionToPublish&gt;</code>

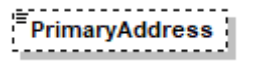
### Batch/Organization/eAddress/SupportAttachments

Diagram	
Description	Defines if the address can support sending/receiving attachments. If element is not present the default interpretation is that the address supports attachments.
Example	<code>&lt;SupportAttachments&gt;true&lt;/SupportAttachments&gt;</code>

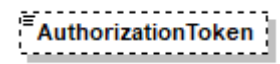
### Batch/Organization/eAddress/SpecialRequirements

Diagram	
Description	Defines if the address requires separate tests or the address has additional business validation rules. If true the sender/receiver should contact the party before sending/receiving documents from this address. If element is not present the default interpretation is that the address does not have special requirements.
Example	<code>&lt;SpecialRequirements&gt;false&lt;/SpecialRequirements&gt;</code>

### Batch/Organization/eAddress/PrimaryAddress

Diagram	
Description	This information is only settable by the eAddress User and is used to mark the eAddress as an primary address for the specified context type.
Example	<code>&lt;PrimaryAddress&gt;false&lt;/PrimaryAddress&gt;</code>

### Batch/Organization/eAddress/AuthorizationToken

Diagram	
Description	Defines the authorization token associated to this specific eAddress. For example the token can be used as shared secret to authorize users to access and change the eAddress specific data in a public eAddress database.
Example	<code>&lt;AuthorizationToken&gt;AP2906f365-399a-40f5-9f57-b9dfc018020d&lt;/AuthorizationToken&gt;</code>

## Batch/Organization/eAddress/Contacts

Diagram	<p>The diagram illustrates a UML class or component structure. On the left, a dashed box labeled 'Contacts' with a multiplicity of '0..∞' is connected to a central octagonal node. This central node is then connected to a vertical stack of four elements: 'Role', 'Name', 'Phone', and 'Email'. The 'Role' and 'Name' elements are solid boxes, while 'Phone' and 'Email' are dashed boxes. Each element has a small square icon next to it, indicating a role or interface.</p>
Description	<b>See Contacts under Organization-element.</b>
Example	