Singtel XCAP Document

# Terminology and convention

# XCAP interface target

Provide contacts XML operation

## document operation

new document

get document

delete document

## document node operation

get document node

add document node

modify document node

delete document node

## document node attribute operation

modify document node attribute

# contacts interface description

## put document

request URL:

PUT http://im.singtelpoc.com/xcap-root/contacts/users/userName/index

request parameters

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **desc** |
| userName | String | Must unique |

Example:

username is Jason ,URL example:

http://im.singtelpoc.com/xcap-root/contacts/users/ Jason /index

Put body contact an friend &friend group document , example:

|  |
| --- |
| <?xml version=*"1.0"* encoding=*"UTF-8"*?>  <contacts xmlns=*"contacts"*  xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"*  xsi:schemaLocation=*"contacts file:///.../contact-list-1.xsd"*>  <id=*"13823322278"*>  <nickname>Bill Doe</nickname>  </contact>  <id=*"13823322271"*>  <nickname>Bill Doe</nickname>  </contact>  <list id=*"friends@facebook"*>  <id=*"13530039954"*>  <nickname>Joe Smith</nickname>  </contact>  <id=*"8613530039954"*>  <nickname>Nancy Gross</nickname>  </contact>  </list>  <list id=*"close-friends@facebook"*>  <id=*"joe"*>  <nickname>Joe Smith</nickname>  </contact>  <id=*"cliff"*>  <nickname>cliff Gross</nickname>  </contact>  <id=*"lily"*>  <nickname>Nancy Gross</nickname>  </contact>  </list>  <list id=*"close-friends@Twitter"*></list>  </contacts> |

Xml node desc:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Node name | Parent node | Type | desc | Node attribute | Attribute value & constraint |
| contacts |  |  | Root node | Xmlns | *contacts* |
| xmlns:xsi |  |
| xsi:schemaLocation |  |
| contact | contacts or list |  |  | id | Msisdn or user account, unique and required |
| list | contacts |  |  | id | unique and required, The format of the  recommended is groupName@domain |
| name | contact | string |  |  |  |

response result

response struts code : 200

## Get document

request URL:

~~GET~~  ~~[http://im.singtelpoc.com](http://im.singtelpoc.com/xcap-root/contacts/users/userName/index)~~~~[/xcap-root/](http://im.singtelpoc.com/xcap-root/contacts/users/userName/index)~~~~[contacts/users/userName/index](http://im.singtelpoc.com/xcap-root/contacts/users/userName/index)~~

~~GET http://im.singtelpoc.com/xcap-root/contacts /index~~

http://172.16.0.84:8080/xcap-root/contacts/ msisdnValue /tokenValue/index

example:

http://172.16.0.84:8080/xcap-root/contacts/8615012601304/0FyoIDW2UyZAN6hEH8Y7DZNYU3A8BYi\_ig8UxOxAkM9SwAeSqwV0bw\*\*/index

request parameters:

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **desc** |
| userName | String | Must unique |

Example:

username is Jason ,URL example:

http://im.singtelpoc.com/xcap-root/contacts/users/ Jason /index

response result

if successful, response status code 200 and xml document.

if failure, response status code 404

## delete document

request URL

DELETE http://im.singtelpoc.com/xcap-root/contacts/users/userName/token/tokenValue/index

Parameter as same as GET operation Parameter

response result

if successful, response status code : 200

## put document node

### add list node

request URL

PUT http://im.singtelpoc.com/xcap-root/contacts/users/userName/index /~~/contacts/list[@id="classmate@facebook"]

list node document is :

|  |
| --- |
| <list id="classmate@facebook">  <id="joehi">  <nickname>Joe Smith</nickname>  </contact>  <id="cliff-a">  <nickname>cliff Gross</nickname>  </contact>  <id="lily-a">  <nickname>Nancy Gross</nickname>  </contact>  </list> |

url parameter id as same as list node document id.

request parameters:

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **desc** |
| userName | String | Must unique |
| id | String |  |

response result

response status code 201, If repeated submit, return status code 200, if error ,return status code is 409

### add contact node

PUT

http://im.singtelpoc.com/xcap-root/contacts/users/userName/index/~~/contacts/list[@id="classmate@facebook"]/contact[@id="1982332211"]

|  |
| --- |
| <id="1982332211">  <nickname>gates</nickname>  </contact> |

201 Created

### merge list node

PUT http://im.singtelpoc.com/xcap-root/contacts/users/userName/index /~~/contacts/list[@id="classmate@facebook"]

|  |
| --- |
| <list id="classmate@facebook">  <id="joehi">  <nickname>Joe-Smith-12345</nickname>  </contact>  <id="cliff-a--abcd">  <nickname>cliff Gross</nickname>  </contact>  <id="lily-a-list">  <nickname>Nancy Gross</nickname>  </contact>  </list> |

201 Created

### merge contact node

put

http://im.singtelpoc.com/xcap-root/contacts/users/userName/index/~~/contacts/list[@id="classmate@facebook"]/contact[@id="1982332211"]

|  |
| --- |
| <id="1982332211">  <nickname>bill gates</nickname>  </contact> |

201 Created

### modify name node

put

http://im.singtelpoc.com/xcap-root/contacts/users/userName/index/~~/contacts/list[@id="classmate@facebook"]/contact[@id="1982332211"]/nickname

|  |
| --- |
| <nickname>Nancy Gross abc</nickname> |

200 OK

## get document node

### get contacts node

the same as get document.

### get list node

#### ~~get list node by index~~

request URL:

GET http://im.singtelpoc.com/xcap-root/contacts/users/userName/index /~~/ contacts /list[1]

#### get list node by id

request URL:

GET http://im.singtelpoc.com/xcap-root/contacts/users/userName/index /~~ / contacts /list[@name="close-friends"]

### get contact node

#### get list node by index

GET http://im.singtelpoc.com/xcap-root/contacts/users/userName/index /~~ / contacts /list[@name="close-friends"]/contact[1]

GET http://im.singtelpoc.com/xcap-root/contacts/users/userName/index /~~ / contacts /contact[1]

#### get list node by id

http://im.singtelpoc.com/xcap-root/contacts/users/userName/index /~~ / contacts /list[@name="close-friends"]/ contact [@id="aa"]

http://im.singtelpoc.com/xcap-root/contacts/users/userName/index /~~ / contacts / contact [@id="aa"]

### get name node

get name node by name

http://im.singtelpoc.com/xcap-root/contacts/users/userName/index /~~ / contacts /list[@name="close-friends"]/ contact [@id="aa"]/name

## delete document node

### delete contacts node

DELETE http://im.singtelpoc.com/xcap-root/contacts/users/userName/index

### delete list node

DELETE http://im.singtelpoc.com/xcap-root/contacts/users/userName/index /~~/contacts/list[@id="close-friends"]

### delete contact node

DELETE http://im.singtelpoc.com/xcap-root/contacts/users/userName/index /~~/contacts/list[@id="close-friends"]/contact[@id="joe"]

## defined error code

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Status code** | **Error info** | **PUT** | **Get** | **DELETE** |
| 404 | Resource not found |  |  |  |
| 409 | 1. <not-well-formed> |  |  |  |
| 1. <not-xml-frag> |  |  |  |
| 1. <no-parent> |  |  |  |
| 1. <schema-validation-error> |  |  |  |
| 1. <not-xml-att-value> |  |  |  |
| 1. <cannot-insert> |  |  |  |
| 1. <cannot-delete> |  |  |  |
| 1. <uniqueness-failure> |  |  |  |
| 1. <constraint-failure> |  |  |  |
| 1. <extension> |  |  |  |
| 1. <not-utf-8> |  |  |  |

Return xml form :

Header:

HTTP/1.1 409 Found

Content-Type application/xcap-error+xml

<?xml version='1.0' encoding='UTF-8'?>

<xcap-error xmlns='urn:ietf:params:xml:ns:xcap-error'>

<not-utf-8 />

</xcap-error>

# document schema

|  |
| --- |
| <?xml version=*"1.0"* encoding=*"UTF-8"*?>  <xs:schema targetNamespace=*"contacts"* xmlns=*"contacts"*  xmlns:xs=*"http://www.w3.org/2001/XMLSchema"*>  <xs:element name=*"contacts"*>  <xs:complexType>  <xs:sequence>  <xs:element ref=*"contact"* maxOccurs=*"unbounded"* minOccurs=*"0"*/>  <xs:element ref=*"list"* maxOccurs=*"unbounded"* minOccurs=*"0"*/>  </xs:sequence>  </xs:complexType>  </xs:element>  <xs:element name=*"list"*>  <xs:complexType>  <xs:sequence>  <xs:element ref=*"contact"* maxOccurs=*"unbounded"*  minOccurs=*"0"* />  </xs:sequence>  <xs:attribute name=*"id"* use=*"required"*>  <xs:simpleType>  <xs:restriction base=*"xs:string"*></xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:complexType>  </xs:element>  <xs:element name=*"contact"*>  <xs:complexType>  <xs:sequence>  <xs:element ref=*"nickname"* maxOccurs=*"1"* minOccurs=*"1"*/>  </xs:sequence>  <xs:attribute name=*"id"* use=*"required"*>  <xs:simpleType>  <xs:restriction base=*"xs:string"*></xs:restriction>  </xs:simpleType>  </xs:attribute>  </xs:complexType>  </xs:element>  <xs:element name=*"nickname"*>  <xs:simpleType>  <xs:restriction base=*"xs:string"*></xs:restriction>  </xs:simpleType>  </xs:element>  </xs:schema> |

# authentication & authority

HTTP Basic Auth

Use token as username , password is no

Implement way : servlet filter

# Implements and Environment

Jboss , servlet, url rewrite

Get request sequence diagram



# Reference

Openxcap: <http://openxcap.org/>

xcap main protocol : <http://www.ietf.org/rfc/rfc4825.txt>