

**VIETNAM INTERNET NETWORK
INFORMATION CENTER - VNNIC
TECHNICAL DEPARTMENT**



**VNNIC EPP GATEWAY
SPECIFICATION**

(Version 4.6)

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Part 1. Overview

1.1. Document using

- This document provides the specification of VNNIC EPP Gateway system for registrars building their EPP client and connect to VNNIC System via EPP.
- The Registrar shall not be permitted to provide part or all of the contents of this document for 3rd party.

1.2. Release note

- Version V4.6:
 - o Date: 11/06/2025
 - o Note:
 - Update list of country (alpha 2 code).
 - Add 11 new country codes:
 - o Saint Barthélemy: BL
 - o Bonaire, Sint Eustatius and Saba: BQ
 - o Curaçao: CW
 - o Guernsey: GG
 - o Isle of Man: IM
 - o Jersey: JE
 - o Montenegro: ME
 - o Saint Martin (French part): MF
 - o Serbia: RS
 - o South Sudan: SS
 - o Sint Maarten (Dutch part): SX
 - Remove 02 old country codes:
 - o Antilles: AN
 - o Czechoslovakia: CS
 - Update <contact:name> and <contact:org> data validation rule: The length must be between 1 and 500 characters long.
- Version V4.5:
 - o Date: 01/07/2020
 - o Note:
 - To update Share Registry System (SRS) Model.
 - To apply RFC5910 for DNSSEC extension: change in domain:create, domain:update command and domain:info response.

- To apply pendingCreate status for registering domain name which contains forbidden keywords.
 - Update vncontact-1.1 extension: adding vncontact-orgId element for representing Organization Identity information.
- Version V4.4:
 - Date: 10/10/2015
 - Note:
 - To update domain registration information if domain registrant is an organization: in addition to the normal data elements, the Registrar have to provide the information of a person who is responsible for registering and updating the domain name data. The person information is managed as the 2nd administrative contact.
 - To adjust “.VN” Domain Name Life Cycle.
 - Procedure adjustment: Suspension period and the withdrawal.
- Version V4.3:
 - Date : 27/10/2014
 - Note:
 - Connection rules
 - Configuration parameters
 - Domain:transfer input parameter change
- Version V4.2:
 - Date : 16/09/2014
 - Note:
 - Domain Life Cycle
 - <poll> message after adding deposit (2.5.4)
 - Correct some example command and response messages
- Version V4.1:
 - Date: 16/07/2014
 - Note:
 - Add release note information
 - Add message poll from Registry actions (see 2.5.4)
 - Add list of CityCode in Viet Nam (apendix)
 - Add list of Country Code (apendix)
 - Update validate rule for <contact:city>
 - Correct some syntax error
- Version V4:
 - Date: 11/12/2013

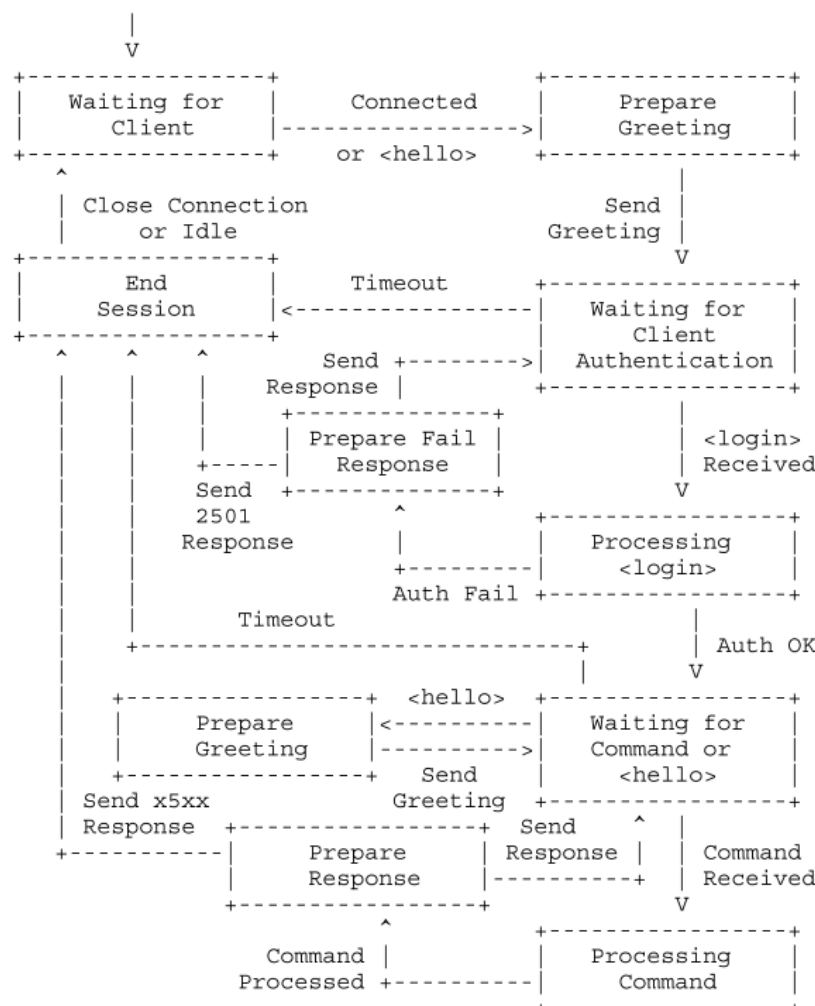
- Note: All relative document about VNNIC EPP Gateway.

1.3. EPP Overview

1.3.1. What is EPP

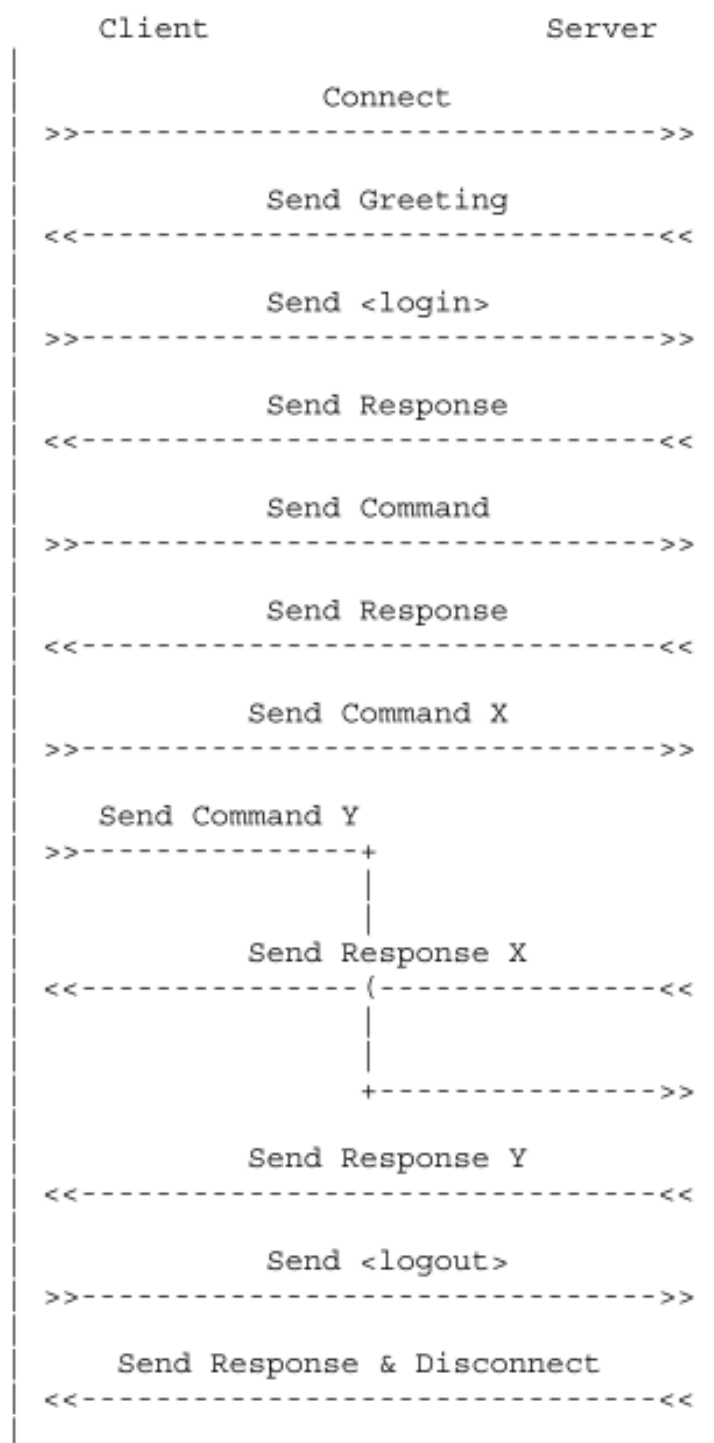
- The Extensible Provisioning Protocol (EPP) is flexible protocol designed for allocating objects within registries over the Internet, specially for communication between domain name registries and domain name registrars through client-server model.
- EPP is based on XML - a structured, text-based format using TCP network transportation.
- EPP protocol implement by defined commands and all EPP commands are atomic.

1.3.2. EPP State Machine



1.3.3. EPP Client – Server Message Exchange

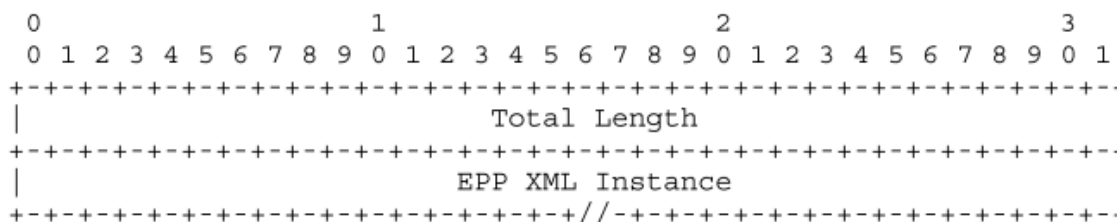
- EPP messages are initiated by the EPP client in the form of EPP commands. An EPP server MUST return an EPP response to an EPP command on the same TCP connection that carried the command.
- EPP commands are idempotent, so processing a command more than once produces the same net effect on the repository as successfully processing the command once.
- An EPP client streams EPP commands to an EPP server on an established TCP connection. A client MUST NOT distribute commands from a single EPP session over multiple TCP connections. A client MAY establish multiple TCP connections to support multiple EPP sessions with each session mapped to a single connection.
- Each EPP data unit MUST contain a single EPP message. Commands MUST be processed independently and in the same order as sent from the client



1.3.4. EPP Data Unit Format

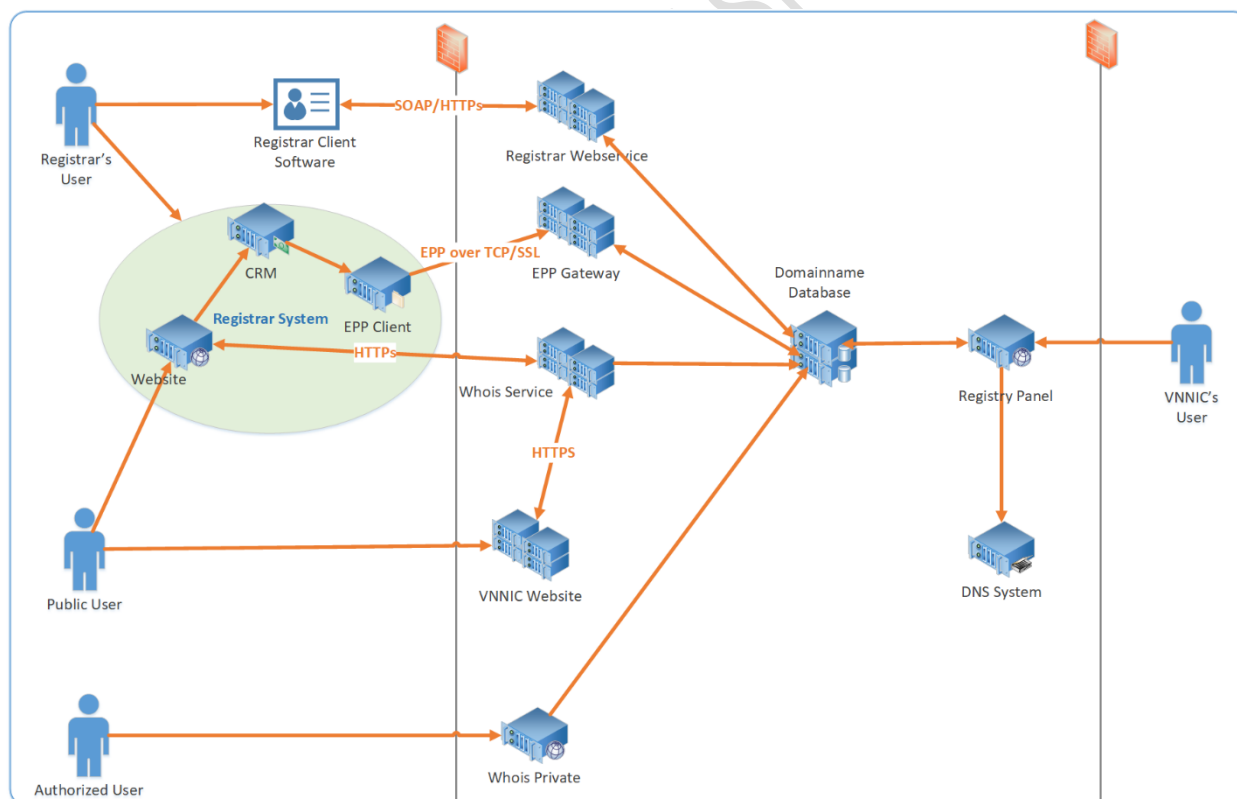
- EPP Data Unit contain 2 fields:
 - o 32 bits header that describes the total length of the data unit

- the EPP XML instance.
- The length of the EPP XML instance is determined by subtracting four octets from the total length of the data unit.
- A receiver must successfully read that many octets to retrieve the complete EPP XML instance before processing the EPP message.
- EPP Data Unit Format (one tick mark represents one-bit position) as below



1.3.5. An Share Registry System (SRS) using EPP protocol

This figure show VNNIC SRS-EPP System Model



1.4. EPP mapping in domain management

1.4.1. RFCs

The first EPP RFCs were published in March 2004, updated in 2007 and latest version were updated in 2009

RFC	Description
5730	Extensible Provisioning Protocol (EPP)
5731	Extensible Provisioning Protocol (EPP) Domain Name Mapping
5732	Extensible Provisioning Protocol (EPP) Host Mapping
5733	Extensible Provisioning Protocol (EPP) Contact Mapping
5734	Protocol (EPP) Transport Over TCP
3735	Guidelines for Extending the Extensible Provisioning Protocol (EPP)
5910	Domain Name System (DNS) Security Extensions Mapping for the Extensible Provisioning Protocol (EPP)

1.4.2. EPP Commands

- Session Management
- Query
- Transformation

1.4.3. EPP Object

- Domain
- Contact
- Host

EPP Commands and Objects mapping

Function	Command	Domain	Host	Contact
Session Management	<hello>	None		
	<greeting>			

	<login>			
	<logout>			
Query	<check>	√	√	√
	<info>	√	√	√
	<transfer>	√	N/A	√
	<poll>	N/A	N/A	N/A
Transformation	<create>	√	√	√
	<update>	√	√	√
	<delete>	√	√	√
	<renew>	√	N/A	N/A
	<transfer>	√	N/A	√

Part 2. VNNIC EPP Mapping

2.1. Overview

2.1.1. Procedures

- VNNIC support only Domain object and Contact object, do not using Host object. So Name Servers are list in <domain:hostAttr> elements. Each element MAY contain an "ip" attribute to identify the IP address format. If the "ip" attribute is not specified, "v4" is the default attribute value.
- We have extension for Contact object to manage some extra information about Individual and Organization as Policy requirement.

2.1.2. Data Validation

Attributes	EPP elements	Validate
Domain Information		
Domain Name	<domain:name>	- Characters should only be a-z A-Z 0-9 and period (.) and dash(-) - The domain name part (domain lable) should not start or end with dash (-) (e.g. -example-.vn) - The domain name part (domain lable) should be between 1 and 63 characters long and for fully domain name should be between 4 and 255
Renewal period	<domain:period>	- By year, $1 \leq N \leq 50$
Authoration Code	<domain:authInfo> <domain:pw> </domain:authInfo>	- String, length must be between 6 and 255 - Characters should only be a-z A-Z 0-9
Name servers	<domain:ns> <domain:hostAttr> <domain:hostName> </domain:hostName> </domain:hostAttr> </domain:ns>	- <domain:hostName> refer to <domain:name> - <domain:hostAddr> refer to Ipv4 or Ipv6 syntax - Number of <domain: hostAttr > elements should be between 1 and 13
Registrant	<domain:registrant>	- Refer to <contact:id> validation in Contact object
Contacts	<domain:contact type="">	- Refer to <contact:id> validation in Contact object - "type" value : admin, tech, billing
Status	<domain:status s="clientHold"/>	- All EPP standard status

Registrar Account	<domain:clID>	- Registrar account created by VNNIC
Created Date	<domain:crDate>	- YYYY-MM-DDTHH:mm:ss
Last Updated Date	<domain:upDate>	- YYYY-MM-DDTHH:mm:ss
Expired Date	<domain:exDate>	- YYYY-MM-DD
Current Expiry Date	<domain:curExDate>	- YYYY-MM-DD
Reason	<domain:reason>	- String, length should be less than 500.
Pending Transfer Status	<domain:status s="pendingTransfer">	- pendingTransfer
Pending Delete Status	<domain:status s="pendingDelete">	- pendingDelete
Pending Create Status	<domain:status s="pendingCreate">	- pendingCreate
Gain Registrar	<domain:reID>	- Refer to Registrar Account
Lost Registrar	<domain:acID>	- Refer to Registrar Account
Transfer Act Date	<domain:acDate>	- YYYY-MM-DDTHH:mm:ss
Transfer Request Date	<domain:reDate>	- YYYY-MM-DDTHH:mm:ss
DNSSEC extension		
DS Record Information	<secDNS:dsData> <secDNS:keyTag/> <secDNS:alg/> <secDNS:digestType/> <secDNS:digest/> <secDNS:keyData> <secDNS:flags/> <secDNS:protocol/> <secDNS:alg/> <secDNS:pubKey/> </secDNS:keyData> </secDNS:dsData>	- <secDNS:keyTag>: unsigned integer from 0 to 65535. - <secDNS:alg>: unsigned integer, from 0 to 255. - <secDNS:digestType>: unsigned integer, from 0 to 255. - <secDNS:digest>: sequence of case-insensitive hexadecimal digits (only contains: 0-9, a-f, A-F). - <secDNS:keyData> contains following sub-elements: - o <secDNS:flags>: unsigned integer from 0 to 65535 (default: 257 – KSK). - o <secDNS:protocol>: unsigned integer, from 0 to 255. - o <secDNS:alg>: unsigned integer, from 0 to 255. - o <secDNS:pubKey>: base64 binary.
Contact information		

ID Contact	<contact:id>	- Created by Registrars, unique in system - Should be between 8 and 32 characters long - Recommendation format : XXX-XXX (X is characters a-z A-Z 0-9)
Localization	<contact:postalInfo type="loc/int">	- "type" value : "loc" for localized and "int" for internationalized form
Contact Name	<contact:name>	- String, - Should be between 1 and 500 characters long
Organization Name	<contact:org>	- String, - Should be between 1 and 500 characters long
Address	<contact:street>	- String, - Should be between 5 and 500 characters long
City	<contact:city>	- String, - Should be between 2 and 50 characters long - If the <Country> is VN, the <City> should be CityCode refer to list of CityCode as an appendix of this document
Country	<contact:cc>	- String, - Should be Country Code standard, refer to List of CountryCode as an appendix of this document
Phone	<contact:voice>	- +CC-XXXXX - One phone number only
Fax	<contact:fax>	- +CC-XXXXX - One fax number only
Email	<contact:email>	- Refer to email address standard syntax - One email address only
Disclosure	<contact:disclose flag="0/1">	- Support : voice, email, fax

		- Not yet applied
Contact extension		
Contact Type	<vncontact: extInfo type="ind/org">	- Support "ind" for individual and "org" for Organization
Trade Name	<vncontact: IntTraName>	- String, - Should be between 2 and 50 characters long
Organization Identity	<vncontact:orgId>	- String - Should be between 6 and 40 characters long
Identification or Passport Number	<vncontact: IDPP>	- String, - Should be between 2 and 50 characters long
Gender	<vncontact: gender>	- String, - Should be between 2 and 40 characters long
Birthday	<vncontact: birthDate>	- YYYY-MM-DD
Working Position	<vncontact:position>	- String, - Should be between 2 and 200 characters long

2.1.3. Result Code

- Using standard EPP result code as listed in RFC 5730.

2.1.4. Rules of connection

	Rule	Parameter	Values
1.	Maximum IP addresses for a registrar	MaxIPPerAccount	10
2.	Maximum concurrent TCP connection per Registrar (per Account)	MaxConnectionPerAccount	50
3.	Maximum concurrent sessions per Registrar (per Account)	MaxSessionPerAccount	30

4.	New sessions rate	MaxSessionPerMinute	10
5.	Maximum commands of a session	MaxCommandPerSession	1000
6.	Maximum session idle time	MaxIdleTime	05 minutes
7.	Maximum session living time	MaxLivingTime	01 hour

- These rules may be changed during runtime depend on operation of the system.

2.1.5. Configuration parameters

	Parameter	Value
1.	Maximum number of domains in domain:check command	1-10
2.	Maximum number of contactids in contact:check command	1-10
3.	Number of name servers (domain:create and domain:update command)	2-13
4.	Maximum domain periods (in domain domain:create command)	1-10
5.	Maximum domain periods (in domain domain:renew command)	1-10
6.	Maximum domain periods (in domain domain:transfer command)	0-10
7.	Min Balance of deposit	0
8.	Max Balance of deposit	10.000.000.000
9.	Warning Balance of deposit	5.000.000
10.	Period of time for contact revocation	5 days
11.	Days after expiration domain will be in serverHold status	5 days
12.	Days after expiration domain will be in pendingDelete status	35 days
13.	Releasing domains in pendingDelete status	Random

14.	Period of time restricted from transfer after registration	60 days
15.	Period of time restricted from transfer before expiry	30 days
16.	Period of time for automatic transfer request (ServerApproved status)	5 days
17.	Currency	Vietnam dong
18.	Time zone on the system	Hanoi time (GMT +7)

These rules may be changed during runtime depend on operation of the system.

2.2. Session Management

2.2.1. Account, Connection limit

- Only one account per Registrar
- When a client change password, all active session of this account will be disconnected.
- We do some rule for connection limitation
 - o Limitation on number of concurrent session from a client :
MaxSessionPerClient
 - o Limitation on number of concurrent session from an account :
MaxSessionPerAccount
 - o Limitation on number of commands in one session :
 - o Idle time and max living time
- These rules may be changed during runtime depend on operation of the system.

2.2.2. Hello

2.2.2.1. Input data

<hello> is an empty element command to keep connection between client and server.

2.2.2.2. Format

```
<?xml version="1.0" encoding="utf-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <hello/>
</epp>
```

2.2.2.3. Response

Response is a greeting message

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <greeting>
    <svID>VNNIC EPP Server</svID>
    <svDate>2014-08-21T16:01:20.0632</svDate>
    <svcMenu>
      <version>1.0</version>
      <lang>en</lang>
      <lang>vi</lang>
      <objURI>urn:ietf:params:xml:ns:domain-1.0</objURI>
      <objURI>urn:ietf:params:xml:ns:contact-1.0</objURI>
      <objURI>urn:ietf:params:xml:ns:host-1.0</objURI>
      <svcExtension>
        <extURI>http://srs.vnnic.vn/epp/extensions/vncontact-1-0</extURI>
      </svcExtension>
    </svcMenu>
    <dcP>
      <access>
        <all/>
      </access>
      <statement>
        <purpose>
          <admin/>
          <contact/>
          <other/>
          <prov/>
        </purpose>
        <recipient>
          <other/>
          <ours/>
          <public/>
        </recipient>
        <retention>
          <business/>
        </retention>
      </statement>
    </dcP>
  </greeting>
</epp>
```

2.2.3. Login

2.2.3.1. Input data

Parameters	EPP attribute	Requirement	Note
Client ID	<clID>	Required	- Refer to <clID> syntax

Password	<pw>	Required	- Password of Registrars in MD5 code
New Password	<newPW>	Option	- Using incase client want to change the current password
EPP version	<options> <version> </ options>	Required	- Using 1.0
Client language	<options> <lang> </ options>	Required	- Support en, vi
Namespaces	< svcs> <objURI> </ svcs>	Required	- Namespace URIs representing the objects (domain, contact)
EPP Extension	< svcs> < svcExtension > </ svcs>	Option	
Client Transaction ID	<clTRID>	Option	

2.2.3.2. Example

- Login:

```
<?xml version="1.0" encoding="utf-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <command>
    <login>
      <clID>ndkmn</clID>
      <pw>passWD</pw>
      <options>
        <version>1.0</version>
        <lang>en</lang>
```

```

        </options>
        <svcs>
            <objURI>urn:ietf:params:xml:ns:domain-1.0</objURI>
            <objURI>urn:ietf:params:xml:ns:contact-1.0</objURI>
        </svcs>
    </login>
    <clTRID>cltTRID-1234</clTRID>
</command>
</epp>

```

- Change Password:

```

<?xml version="1.0" encoding="utf-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
    <command>
        <login>
            <clID>ndkmn</clID>
            <pw>oldPasswd</pw>
            <newPW>newPasswd/newPW>
            <options>
                <version>1.0</version>
                <lang>en</lang>
            </options>
            <svcs>
                <objURI>urn:ietf:params:xml:ns:domain-1.0</objURI>
                <objURI>urn:ietf:params:xml:ns:contact-1.0</objURI>
            </svcs>
        </login>
        <clTRID>cltTRID-1234</clTRID>
    </command>
</epp>

```

2.2.3.3. Response message

- Login successfully

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
    <result code="1000">
        <msg>Command completed successfully</msg>
    </result>
    <trID>
        <clTRID>ABC-12345</clTRID>
        <svTRID>54321-XYZ</svTRID>
    </trID>
</response>
</epp>

```

- Change password successfully

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

```

```

xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1000">
      <msg>Command completed successfully! All active session have been
terminated </msg>
    </result>
    <trID>
      <clTRID>ABC-12345</clTRID>
      <svTRID>54321-XYZ</svTRID>
    </trID>
  </response>
</epp>

```

2.2.3.4. Result code

STT	Lý do	Mã lỗi	Ghi chú
1	Invalid input parameters	2005	
2	Invalid syntax	2001	
3	Invalid username /password	2200	
4	Invalid username /password counts over limitation	2501	
5	Over max session limitation	2502	
6	Missing parameters	2003	

2.2.4. Logout

2.2.4.1. Input data

Command is used to end a session with an EPP Server.

2.2.4.2. Example command

```

<?xml version="1.0" encoding="utf-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <command>
    <logout/>
  </command>
</epp>

```

2.2.4.3. Response message

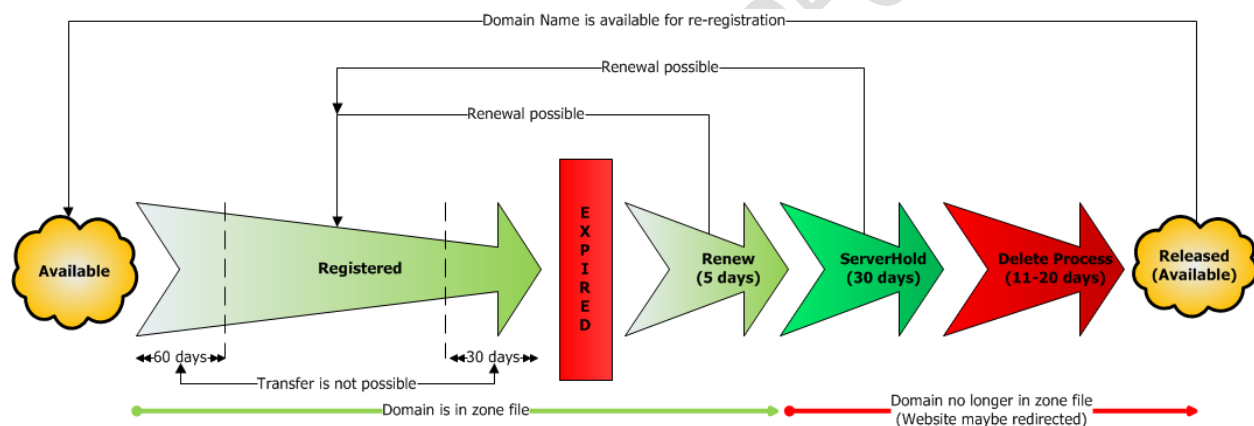
- Logout success, end session:

```
<?xml version="1.0" encoding="utf-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1500">
      <msg>Command completed successfully; ending session</msg>
    </result>
    <trID>
      <svTRID>54322-XYZ</svTRID>
    </trID>
  </response>
</epp>
```

2.3. Domain Management

2.3.1. Overview

- .VN Domain LifeCycle (have taken effect since October 10th, 2015 according to the 24/2015/TT-BTTTT)



- During the first 5 days after expiration, domain is still in zone file and works normally.
- During the period of 6th – 35th days after expiration, without renewal, the domain will be suspended and all services associated with the domain will be stop working.
- Withdrawal: After 35 days from the expiry date, if the domain is not renewed, the domain will be in pending delete status for approximately 11 – 20 days before it will be withdrawn and become available to register.
- The domain withdrawal has to be confirmed by VNNIC and Registrar via digital signatures. The withdrawal confirmation includes 2 steps:
 - o Registrar submits “List of expired domain names without renewals” to VNNIC.
 - o VNNIC confirms a “List of domain names will be withdrawn”.
- In pendingDelete status, domain name does not active in DNS, domain name still belong to the registrant

- In pendingCreate status, domain name does not active in DNS, and need approval for allocation by VNNIC staff.
- A domain will have a <clientTransferProhibited> status as default status after created.
- Period for renew : by year: 1-50
- Domain & Nameserver information
 - o One domain name have 2-13 nameservers
 - o If the nameservers is a subdomain of the domain name, at least one IP address (IPv4 or IPv6) is required
- Domain & Contact information
 - o One registrant, one contact for admin, one for technical and one for billing contact is required
 - o Contact must be belong to the registrar
- Fee will be collected immediately after a domain created
- Create and renew domain command is processed only if the deposit is higher than Registrar Deposit Limitation

2.3.2. Command <domain:check>

2.3.2.1. Input data

Parameter	EPP attribute	Requirement	Note
Domain Name	<domain:name>	Required	Refer to domain name syntax Up to 5 domain name

2.3.2.2. Example command

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
<command>
  <check>
    <domain:check xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
      <domain:name>srsote01.vn</domain:name>
      <domain:name>srsote02.vn</domain:name>
      <domain:name>srsote03.vn</domain:name>
      <domain:name>srsote04.vn</domain:name>
    </domain:check>
  </check>
  <clTRID>srsote-123456</clTRID>
</command>
</epp>
```

2.3.2.3. Response message

- Example response message

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
<domain:chkData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<domain:cd>
<domain:name avail="0">srsote01.vn</domain:name>
<domain:reason xmlns:domain="urn:ietf:params:xml:ns:epp-1.0">In
use.</domain:reason>
</domain:cd>
<domain:cd>
<domain:name avail="0">srsote02.vn</domain:name>
<domain:reason xmlns:domain="urn:ietf:params:xml:ns:epp-1.0">In
use.</domain:reason>
</domain:cd>
<domain:cd>
<domain:name avail="1">srsote03.vn</domain:name>
</domain:cd>
<domain:cd>
<domain:name avail="1">srsote04.vn</domain:name>
</domain:cd>
</domain:chkData>
</resData>
<trID>
<clTRID>srsote-123456</clTRID>
<svTRID>VNNIC-EPP-4f0d9468-a4f8-4381-aa22-219f8e697a28</svTRID>
</trID>
</response>
</epp>

```

2.3.2.4. Result code

N0	Reason	Code	Note
1	Invalid input parameters	2005	
2	N > 5 domain name	2004	

2.3.3. Command <domain:info>

2.3.3.1. Rules

- The command is used to retrieve information associated with a domain object.
- If the querying client is the sponsoring client (the registrar who manage this domain object), all available information will returned.

- If the querying client is not the sponsoring client but have valid authorization information, all available information will returned.
- If the querying client is not the sponsoring client and the client does not provide valid authorization information, server will return an error code 2200
- If the querying client is not the sponsoring client and the client does not provide authorization information (without authorization information), server will return only some information , such as : DomainName, ROID, clID, createdDate, expiration Date ..

2.3.3.2. Input data

Parameter	EPP attribute	Requirement	Note
Domain name	<domain:name>	Required	
Authorization information	<domain:authInfo> </domain:pw> </domain:authInfo>	Optional	

2.3.3.3. Example command

Request command with <domain:authInfo> :

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
  <info>
    <domain:info xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
      <domain:name>srsote01.vn</domain:name>
      <domain:authInfo>
        <domain:pw>12345678</domain:pw>
      </domain:authInfo>
    </domain:info>
  </info>
  <clTRID>cltTRID-1234</clTRID>
</command>
</epp>
```

Request command without <domain:authInfo> :

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <command>
    <info>
```

```

        <domain:info
            xmlns:domain="urn:ietf:params:xml:n domain-1.0"
            xsi:schemaLocation="urn:ietf:params:xml:n domain-1.0 domain-1.0.xsd">
                <domain:name>vnnic.vn</domain:name>
            </domain:info>
        </info>
        <clTRID>NDK1-DOMAIN-INFO-123456</clTRID>
    </command>
</epp>

```

2.3.3.4. Response message

- Request from sponsoring client.

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
    <response>
        <result code="1000">
            <msg>Command completed successfully</msg>
        </result>
        <resData>
            <domain:infData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
                xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
                <domain:name>srsote01.vn</domain:name>
                <domain:roid>DOMAIN-1391929</domain:roid>
                <domain:status s="ok"/>
                <domain:registrant>srsote-01</domain:registrant>
                <domain:contact type="admin">srsote-02</domain:contact>
                <domain:contact type="tech">srsote-02</domain:contact>
                <domain:contact type="billing">srsote-02</domain:contact>
            </domain:infData>
            <domain:ns>
                <domain:hostAttr>
                    <domain:hostname>dns2.vnnic.vn</domain:hostname>
                </domain:hostAttr>
            </domain:ns>
            <domain:clID>ktth1_epp</domain:clID>
            <domain:crID>ktth1_epp</domain:crID>
            <domain:crDate>2014-06-10T15:12:49.0226</domain:crDate>
            <domain:upID>registry</domain:upID>
            <domain:upDate>2014-08-22T10:10:14.0172</domain:upDate>
            <domain:exDate>2015-06-10T00:00:00.0000</domain:exDate>
            <domain:authInfo>
                <domain:pw>12345678</domain:pw>
            </domain:authInfo>
        </resData>
        <trID>
            <clTRID>cltTRID-1234</clTRID>
            <svTRID>VNNIC-EPP-390c4f95-5666-4cc2-92fe-44412a671735</svTRID>
        </trID>
    </response>
</epp>

```

- If the querying client is not the sponsoring client but have valid authorization :

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
<domain:infData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<domain:name>srsote01.vn</domain:name>
<domain:roid>DOMAIN-1391929</domain:roid>
<domain:status s="ok"/>
<domain:registrant>srsote-01</domain:registrant>
<domain:contact type="admin">srsote-02</domain:contact>
<domain:contact type="tech">srsote-02</domain:contact>
<domain:contact type="billing">srsote-02</domain:contact>
<domain:ns>
<domain:hostAttr>
<domain:hostname>dns2.vnnic.vn</domain:hostname>
</domain:hostAttr>
</domain:ns>
<domain:clID>ktth1_epp</domain:clID>
<domain:crID>ktth1_epp</domain:crID>
<domain:crDate>2014-06-10T15:12:49.0226</domain:crDate>
<domain:upID>registry</domain:upID>
<domain:upDate>2014-08-22T10:10:14.0172</domain:upDate>
<domain:exDate>2015-06-10T00:00:00.0000</domain:exDate>
<domain:authInfo>
<domain:pw>12345678</domain:pw>
</domain:authInfo>
</domain:infData>
</resData>
<trID>
<clTRID>cltTRID-1234</clTRID>
<svTRID>VNNIC-EPP-7c0f9e26-ea9d-45dd-98f3-803b9c7bc054</svTRID>
</trID>
</response>
</epp>
```

- If the querying client is not the sponsoring client, don't have authorization information:

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
```

```

<domain:infData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<domain:name>vnnic.vn</domain:name>
<domain:roid>DOMAIN-32185</domain:roid>
<domain:status s="clientTransferProhibited"/>
<domain:registrant>82056_F18BFEFF26</domain:registrant>
<domain:ns>
<domain:hostAttr>
<domain:hostName>dns1.vnnic.vn</domain:hostName>
<domain:hostAddr ip="v4">203.119.8.108</domain:hostAddr>
<domain:hostAddr ip="v6">2001:dc8:0:2::108</domain:hostAddr>
</domain:hostAttr>
<domain:hostAttr>
<domain:hostName>dns2.vnnic.vn</domain:hostName>
<domain:hostAddr ip="v4">203.119.36.108</domain:hostAddr>
<domain:hostAddr ip="v6">2001:dc8:c000:2::108</domain:hostAddr>
</domain:hostAttr>
<domain:hostAttr>
<domain:hostName>dns3.vnnic.vn</domain:hostName>
<domain:hostAddr ip="v4">203.119.64.108</domain:hostAddr>
<domain:hostAddr ip="v6">2001:dc8:c000:2::108</domain:hostAddr>
</domain:hostAttr>
</domain:ns>
<domain:clID>qltn_epp</domain:clID>
<domain:crDate>2005-09-01T08:08:33.0000</domain:crDate>
<domain:exDate>2018-09-01T00:00:00.0000</domain:exDate>
</domain:infData>
</resData>
<trID>
<clTRID>SRSOTE-DOMAIN-INFO-123456</clTRID>
<svTRID>VNNIC-EPP-fe071dbd-e2cf-4ae2-85b9-05ff3a098bed</svTRID>
</trID>
</response>
</epp>

```

2.3.3.5. Response codes

N0	Reason	Code	Note
1	Invalid domain name syntax	2005	
2	Invalid <domain:authInfo> value	2202	
3	Domain does not exists or reserved	2303	

2.3.4. Command <domain:create>

2.3.4.1. Input data

Parameter	EPP attribute	Requirement	Note
Domain name	<domain:name>	Required	

Period	<domain:period>	Required	
Authorization information	<domain:authInfo> </domain:pw> </domain:authInfo>	Required	
Name Servers	<domain:ns> </domain:hostAttr> </domain:ns>	Required	
Registrant	<domain:registrant>	Required	
Admin contact	<domain:contact type="admin">	Required	
Representative contact	<domain:contact type="admin">	Required if the domain registrant is an organization	The person information is managed as the 2 nd administrative contact. VNNIC suggest Registrar set the value for parameter <vncontact:position> is <i>"Name Holder's representative"</i> to identity this person
Technical contact	<domain:contact type="tech">	Required	
Billing contact	<domain:contact type="billing">	Required	
DS Record Information	<secDNS:dsData>	Optional	Support maximum 06 DS records/domain. MUST include the KeyData in secDNS:dsData for approval process.

2.3.4.2. Example command

- Domain create command example with domain registrant is an individual:

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
<create>
  <domain:create xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
    <domain:name>srsote-test.vn</domain:name>
    <domain:period unit="y">2</domain:period>
    <domain:ns>
      <domain:hostAttr>
        <domain:hostName>ns1.srsote-test.vn</domain:hostName>
        <domain:hostAddr ip="v4">10.10.8.5</domain:hostAddr>
        <domain:hostAddr ip="v6">2001:d8::5</domain:hostAddr>
      </domain:hostAttr>
      <domain:hostAttr>
        <domain:hostName>dns1.vnnic.vn</domain:hostName>
      </domain:hostAttr>
      <domain:hostAttr>
        <domain:hostName>dns2.vnnic.vn</domain:hostName>
      </domain:hostAttr>
    </domain:ns>
    <domain:registrant>srsote-01</domain:registrant>
    <domain:contact type="admin">srsote-02</domain:contact>
    <domain:contact type="tech">srsote-03</domain:contact>
    <domain:contact type="billing">srsote-04</domain:contact>
    <domain:authInfo>
      <domain:pw>vnnic@12345678</domain:pw>
    </domain:authInfo>
  </domain:create>
</create>
<clTRID>test-eppgateway-0001</clTRID>
</command>
</epp>

```

- Domain create command example with domain registrant is an organization:

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
<create>
  <domain:create xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
    <domain:name>srsote-test.vn</domain:name>
    <domain:period unit="y">2</domain:period>
    <domain:ns>
      <domain:hostAttr>
        <domain:hostName>ns1.srsote-test.vn</domain:hostName>
        <domain:hostAddr ip="v4">10.10.8.5</domain:hostAddr>
        <domain:hostAddr ip="v6">2001:d8::5</domain:hostAddr>
      </domain:hostAttr>
      <domain:hostAttr>
        <domain:hostName>dns1.vnnic.vn</domain:hostName>
      </domain:hostAttr>
    </domain:ns>
  </domain:create>
</create>
</command>
</epp>

```

```

        </domain:hostAttr>
        <domain:hostAttr>
            <domain:hostName>dns2.vnnic.vn</domain:hostName>
        </domain:hostAttr>
    </domain:ns>
    <domain:registrant>srsote-01</domain:registrant>
    <domain:contact type="admin">srsote-02</domain:contact>
    <domain:contact type="admin">srsote-03</domain:contact>
    <domain:contact type="tech">srsote-04</domain:contact>
    <domain:contact type="billing">srsote-05</domain:contact>
    <domain:authInfo>
        <domain:pw>vnnic@12345678</domain:pw>
    </domain:authInfo>
</domain:create>
</create>
<clTRID>test-eppgateway-0001</clTRID>
</command>
</epp>

```

- Domain create command example with DS Record information:

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
<create>
    <domain:create xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
        <domain:name>test-dnssec-02.vn</domain:name>
        <domain:period unit="y">1</domain:period>
        <domain:ns>
            <domain:hostAttr>
                <domain:hostName>dns1.vnnic.vn</domain:hostName>
            </domain:hostAttr>
            <domain:hostAttr>
                <domain:hostName>dns2.vnnic.vn</domain:hostName>
            </domain:hostAttr>
        </domain:ns>
        <domain:registrant>test-20150804</domain:registrant>
        <domain:contact type="admin">test-20150804</domain:contact>
        <domain:contact type="tech">test-20150804</domain:contact>
        <domain:contact type="billing">test-20150804</domain:contact>
        <domain:authInfo>
            <domain:pw>12345678</domain:pw>
        </domain:authInfo>
    </domain:create>
</create>
<extension>
    <secDNS:create xmlns:secDNS="urn:ietf:params:xml:ns:secDNS-1.1">
        <secDNS:dsData>
            <secDNS:keyTag>48322</secDNS:keyTag>
            <secDNS:alg>10</secDNS:alg>
            <secDNS:digestType>1</secDNS:digestType>
            <secDNS:digest>C1EE5292D263C2797FD2</secDNS:digest>
            <secDNS:keyData>

```

```

        <secDNS:flags>256</secDNS:flags>
        <secDNS:protocol>3</secDNS:protocol>
        <secDNS:alg>10</secDNS:alg>
        <secDNS:pubKey>AwEAAfUuFPI/=</secDNS:pubKey>
      </secDNS:keyData>
    </secDNS:dsData>
    <secDNS:dsData>
      <secDNS:keyTag>48323</secDNS:keyTag>
      <secDNS:alg>10</secDNS:alg>
      <secDNS:digestType>1</secDNS:digestType>
      <secDNS:digest>C1EE5292D263C2797FD2</secDNS:digest>
      <secDNS:keyData>
        <secDNS:flags>257</secDNS:flags>
        <secDNS:protocol>3</secDNS:protocol>
        <secDNS:alg>10</secDNS:alg>
        <secDNS:pubKey>AwEAAfUuFPI/=</secDNS:pubKey>
      </secDNS:keyData>
    </secDNS:dsData>
  </secDNS:create>
</extension>
<clTRID>testClient-005</clTRID>
</command>
</epp>

```

2.3.4.3. Response message

- Case 1: Create domain success, domain does not contain forbidden keyword:

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:creData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
        <domain:name>srsote-test.vn</domain:name>
        <domain:crDate>2014-08-22T11:12:17.0037</domain:crDate>
        <domain:exDate>2016-08-22T11:12:17.0037</domain:exDate>
      </domain:creData>
    </resData>
    <trID>
      <clTRID>test-eppgateway-0001</clTRID>
      <svTRID>VNNIC-EPP-cb8e423b-580d-454e-b299-f4b1587b70f6</svTRID>
    </trID>
  </response>
</epp>

```

- Case 2: Create domain successfully, domain contains forbidden keywords:

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">

```

```

<response>
<result code="1001">
<msg>Command completed successfully; action pending</msg>
</result>
<resData>
<domain:creData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<domain:name>srsote-test.vn</domain:name>
<domain:crDate>2020-06-22T11:12:17.0037</domain:crDate>
<domain:exDate>2021-06-22T11:12:17.0037</domain:exDate>
</domain:creData>
</resData>
<trID>
<clTRID>test-eppgateway-0001</clTRID>
<svTRID>VNNIC-EPP-cb8e423b-580d-454e-b299-f4b1587b70f6</svTRID>
</trID>
</response>
</epp>

```

2.3.4.4. Response codes

N0	Reason	Code	Note
1	Invalid input parameters	2005	
2	Domain Name in list of subdomain level 2 ccTLD	2308	
3	Domain Name was reserved	2306	
4	Object exist	2302	
5	Duplicate <domain:hostName>	2306	
6	Invalid number of <domain:hostAttr> parameters	2308	
7	ContactID does not exist	2303	
8	ContactID is not belong to requesting client	2201	
9	Billing failure	2104	
10	Number of <secDNS:dsData> is exceed the maximum	2306	

2.3.5. Command <domain:update>

2.3.5.1. Input data

Parameter	EPP attribute	Requirement	Note
Domain Name	<domain:name>	Required	

Authorization information	<domain:authInfo> </domain:pw> </domain:authInfo>	Optional	
Name Servers	<domain:ns> </domain:hostAttr> </domain:ns>	Optional	
Registrant	<domain:registrant>	Optional	
Admin contact	<domain:contact type="admin">	Optional	
Technical contact	<domain:contact type="tech">	Optional	
Billing contact	<domain:contact type="billing">	Optional	
Status	<domain:status s="clientHold"/>	Optional	
Status	<domain:status s="clientRenewProhibited"/>	Optional	
Status	<domain:status s="clientTransferProhibited"/>	Optional	
Status	<domain:status s="clientDeleteProhibited"/>	Optional	
Status	<domain:status s="clientUpdateProhibited"/>	Optional	
DS record information	<secDNS:update/>	Optional	

2.3.5.2. Example command

- Case 1: Update without change DS Record for domain name

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
  <update>
    <domain:update xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
      <domain:name>srsote-test.vn</domain:name>
      <domain:add>
        <domain:ns>
          <domain:hostAttr>
            <domain:hostName>ns1.srsote-test.vn</domain:hostName>
            <domain:hostAddr ip="v4">10.10.8.2</domain:hostAddr>
            <domain:hostAddr ip="v6">2001:8::2</domain:hostAddr>
          </domain:hostAttr>
        </domain:ns>
      </domain:add>
    </domain:update>
  </update>
</command>
</epp>
```

```

        </domain:ns>
        <domain:contact type="admin">srsote-03</domain:contact>
        <domain:status s="clientHold"/>
    </domain:add>
    <domain:rem>
        <domain:ns>
            <domain:hostAttr>
                <domain:hostName>dns1.vnnic.vn </domain:hostName>
            </domain:hostAttr>
        </domain:ns>
        <domain:contact type="admin">srsote-02</domain:contact>
        <domain:status s="clientTransferProhibited"/>
    </domain:rem>
    <domain:chg>
        <domain:authInfo>
            <domain:pw>vnnic@12345678</domain:pw>
        </domain:authInfo>
    </domain:chg>
</domain:update>
</update>
<clTRID>srsote-domain-update-123456</clTRID>
</command>
</epp>

```

- Case 2: Update change DS Record for domain name

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
    <update>
        <domain:update xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
            <domain:name>srsote-test.vn</domain:name>
            <domain:add>
                <domain:contact type="admin">srsote-03</domain:contact>
            </domain:add>
            <domain:rem>
                <domain:contact type="admin">srsote-02</domain:contact>
            </domain:rem>
            <domain:chg>
                <domain:authInfo>
                    <domain:pw>vnnic@12345678</domain:pw>
                </domain:authInfo>
            </domain:chg>
        </domain:update>
    </update>
    <extension>
        <secDNS:update
xmlns:secDNS="urn:ietf:params:xml:ns:secDNS-1.1">
            <secDNS:rem>
                <secDNS:dsData>
                    <secDNS:keyTag>12345</secDNS:keyTag>
                    <secDNS:alg>3</secDNS:alg>
                    <secDNS:digestType>1</secDNS:digestType>

```

```

    <secDNS:digest>49FD46E6C4B45C55D4AC</secDNS:digest>
    <secDNS:keyData>
      <secDNS:flags>257</secDNS:flags>
      <secDNS:protocol>3</secDNS:protocol>
      <secDNS:alg>1</secDNS:alg>
      <secDNS:pubKey>AQPJ///4Q==</secDNS:pubKey>
    </secDNS:keyData>
  </secDNS:dsData>
</secDNS:rem>
<secDNS:add>
  <secDNS:dsData>
    <secDNS:keyTag>34567</secDNS:keyTag>
    <secDNS:alg>4</secDNS:alg>
    <secDNS:digestType>1</secDNS:digestType>
    <secDNS:digest>A1B255FAB6901BAC8F</secDNS:digest>
    <secDNS:keyData>
      <secDNS:flags>257</secDNS:flags>
      <secDNS:protocol>3</secDNS:protocol>
      <secDNS:alg>1</secDNS:alg>
      <secDNS:pubKey>ASDSAD///AQQ==</secDNS:pubKey>
    </secDNS:keyData>
  </secDNS:dsData>
</secDNS:add>
</secDNS:update>
</extension>
<clTRID>srsote-domain-update-123456</clTRID>
</command>
</epp>

```

2.3.5.3. Response message

- Response message example

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>srsote-domain-update-123456</clTRID>
      <svTRID>VNNIC-EPP-2f5bcd5-4ef0-426f-aaed-6d0818caecce</svTRID>
    </trID>
  </response>
</epp>

```

2.3.5.4. Response codes

N0	Reason	Code	Note
1	Invalid input parameters	2005	
2	Authorization error	2201	

3	Prohibited status	2304	
4	Object does not exist	2303	
5	Data management policy violation	2308	

2.3.6. Command <domain:renew>

2.3.6.1. Input data

Parameter	EPP attribute	Requirement	Note
Domain Name	<domain:name>	Required	
Period	<domain:period>	Required	
Current Expiration Date	<domain:curExpDate>	Required	

2.3.6.2. Example command

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
  <renew>
    <domain:renew xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
      <domain:name>srsote-test.vn</domain:name>
      <domain:curExpDate>2016-08-22</domain:curExpDate>
      <domain:period unit="y">1</domain:period>
    </domain:renew>
  </renew>
  <clTRID>test-eppgateway-0002</clTRID>
</command>
</epp>
```

2.3.6.3. Response message

- Example response message

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
```

```

<domain:renData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<domain:name>srsote-test.vn</domain:name>
<domain:exDate>2017-08-22T00:00:00.0000</domain:exDate>
</domain:renData>
</resData>
<trID>
<clTRID>test-eppgateway-0002</clTRID>
<svTRID>VNNIC-EPP-398f3bae-3c06-4a03-916a-d66a3771e60c</svTRID>
</trID>
</response>
</epp>

```

2.3.6.4. Response codes

N0	Reason	Code	Note
1	Invalid input parameters	2005	
2	Authorization error	2201	
3	Object doesn't exist	2303	
4	Object status prohibits operation	2304	
5	Billing failure	2104	

2.3.7. Command <domain:transfer>

The EPP <transfer> command provides a query operation that allows a client to determine the real-time status of pending and completed transfer requests or a transform operation that allows a client to manage requests to transfer the sponsorship of a domain object.

VNNIC support fully “op” for <domain:transfer> command : request, approve, reject, cancel, query.

Limitation for transfer request:

- T1 days after created
- T2 days before expired
- Input parameters:
 - o Domain Name
 - o period (Required, values range from 0-10)
 - o domain:authInfo

- Note: After a domain name transferred, all its contacts and registrant object still belong to the lost registrar, the gain registrar SHOULD implement <domain:update> to using their contacts objects.

2.3.7.1. Input data

- Op="request"

Parameter	EPP attribute	Requirement	Note
Domain name	<domain:name>	Required	
Authorization information	<domain:authInfo> </domain:pw> </domain:authInfo>	Required	
Period	<domain:period>	Required	

- Op="query"

Parameter	EPP attribute	Requirement	Note
Domain Name	<domain:name>	Required	
Authorization information	<domain:authInfo> </domain:pw> </domain:authInfo>	Required	

- Op = "approve"

Parameter	EPP attribute	Requirement	Note
Domain Name	<domain:name>	Required	

- Op = "reject"

Parameter	EPP attribute	Requirement	Note
Domain Name	<domain:name>	Required	

- Op = "cancel"

Parameter	EPP attribute	Requirement	Note
-----------	---------------	-------------	------

Domain Name	<domain:name>	Required	
-------------	---------------	----------	--

2.3.7.2. Example command

- Transfer request

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
  <transfer op="request">
    <domain:transfer xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
      <domain:name>srsote-test.vn</domain:name>
      <domain:period unit="y">1</domain:period>
      <domain:authInfo>
        <domain:pw>vnnic@12345678</domain:pw>
      </domain:authInfo>
    </domain:transfer>
  </transfer>
  <clTRID>srsote-domain-transfer-request-123456</clTRID>
</command>
</epp>
```

- Transfer query

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
  <transfer op="query">
    <domain:transfer xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
      <domain:name>srsote-test.vn</domain:name>
      <domain:authInfo>
        <domain:pw>vnnic@12345678</domain:pw>
      </domain:authInfo>
    </domain:transfer>
  </transfer>
  <clTRID>srsote-domain-transfer-query-123456</clTRID>
</command>
</epp>
```

- Transfer approve

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
  <transfer op="approve">
    <domain:transfer xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
      <domain:name>srsote-test.vn </domain:name>
    </domain:transfer>
  </transfer>
  <clTRID>srsote-domain-transfer-approve-123456</clTRID>
</command>
</epp>
```

```

        </domain:transfer>
      </transfer>
      <clTRID>srsote-domain-transfer-approved-123456</clTRID>
    </command>
  </epp>

```

- Transfer reject

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <command>
    <transfer op="reject">
      <domain:transfer xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
        <domain:name>srsote-test.vn</domain:name>
      </domain:transfer>
    </transfer>
    <clTRID>srsote-domain-transfer-rejected-123456</clTRID>
  </command>
</epp>

```

- Transfer cancel

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <command>
    <transfer op="cancel">
      <domain:transfer xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
        <domain:name>srsote-test.vn</domain:name>
      </domain:transfer>
    </transfer>
    <clTRID>srsote-domain-transfer-cancel-123456</clTRID>
  </command>
</epp>

```

2.3.7.3. Response message

a. Transfer request

- Response message example

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1001">
      <msg>Command completed successfully; action pending</msg>
    </result>
    <resData>
      <domain:trnData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">

```

```

<domain:name>srsote-test.vn</domain:name>
<domain:trStatus>pending</domain:trStatus>
<domain:reID>qltn_epp</domain:reID>
<domain:reDate>2014-08-25T14:59:03.0479</domain:reDate>
<domain:acID>ktthl_epp</domain:acID>
<domain:acDate>2014-08-30T14:59:03.0479</domain:acDate>
<domain:exDate>2019-08-22T00:00:00.0000</domain:exDate>
</domain:trnData>
</resData>
<trID>
<clTRID>srsote-domain-transfer-request-123456</clTRID>
<svTRID>VNNIC-EPP-9a8b6bed-3686-4adf-a796-5a17ffbd85c2</svTRID>
</trID>
</response>
</epp>

```

b. Transfer query

- Response message example

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
<domain:trnData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<domain:name>srsote-test.vn</domain:name>
<domain:trStatus>pending</domain:trStatus>
<domain:reID>qltn_epp</domain:reID>
<domain:reDate>2014-08-22T15:30:57.0981</domain:reDate>
<domain:acID>ktthl_epp</domain:acID>
<domain:acDate>2014-08-27T15:30:57.0981</domain:acDate>
<domain:exDate>2019-08-22T00:00:00.0000</domain:exDate>
</domain:trnData>
</resData>
<trID>
<clTRID>srsote-domain-transfer-query-123456</clTRID>
<svTRID>VNNIC-EPP-4192fc42-5af4-46ec-a53a-c294c6c3f94e</svTRID>
</trID>
</response>
</epp>

```

c. Transfer approve

- Response message example

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>

```

```

<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
<domain:trnData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<domain:name>srsote-test.vn</domain:name>
<domain:trStatus>clientApproved</domain:trStatus>
<domain:reID>qltn_epp</domain:reID>
<domain:reDate>2014-08-25T15:03:11.0346</domain:reDate>
<domain:acID>ktth1_epp</domain:acID>
<domain:acDate>2014-08-25T15:05:52.0817</domain:acDate>
<domain:exDate>2019-08-22T00:00:00.0000</domain:exDate>
</domain:trnData>
</resData>
<trID>
<clTRID>srsote-domain-transfer-approved-123456</clTRID>
<svTRID>VNNIC-EPP-b87b5811-ce04-4324-8fe1-bb557b120283</svTRID>
</trID>
</response>
</epp>

```

d. Transfer reject

- Response message example

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
<domain:trnData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<domain:name>srsote-test.vn</domain:name>
<domain:trStatus>clientRejected</domain:trStatus>
<domain:reID>qltn_epp</domain:reID>
<domain:reDate>2014-08-22T15:30:57.0981</domain:reDate>
<domain:acID>ktth1_epp</domain:acID>
<domain:acDate>2014-08-25T14:52:10.0508</domain:acDate>
<domain:exDate>2019-08-22T00:00:00.0000</domain:exDate>
</domain:trnData>
</resData>
<trID>
<clTRID>srsote-domain-transfer-rejected-123456</clTRID>
<svTRID>VNNIC-EPP-dc4d93e2-ec7f-4bc2-b7ff-81e6911bb25c</svTRID>
</trID>
</response>
</epp>

```

e. Transfer cancel

- Response message example

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>

```

```

<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
<domain:trnData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<domain:name>srsote-test.vn</domain:name>
<domain:trStatus>clientCancelled</domain:trStatus>
<domain:reID>qltn_epp</domain:reID>
<domain:reDate>2014-08-25T14:59:03.0479</domain:reDate>
<domain:acID>qltn_epp</domain:acID>
<domain:acDate>2014-08-25T15:01:36.0837</domain:acDate>
<domain:exDate>2019-08-22T00:00:00.0000</domain:exDate>
</domain:trnData>
</resData>
<trID>
<clTRID>srsote-domain-transfer-cancel-123456</clTRID>
<svTRID>VNNIC-EPP-c657e56f-cd28-4ede-9ad4-64dbd3e379da</svTRID>
</trID>
</response>
</epp>

```

2.3.7.4. Response codes

N0	Reason	Code	Note
1	Input parameters	2005	
2	Authorization error	2201	
3	Object does not exist	2303	
4	Invalid authorization information	2202	
5	Object status prohibits operation	2304	
6	Object pending transfer	2301	
7	Object is not eligible for transfer	2106	

2.3.8. Command <domain:delete>

2.3.8.1. Input parameters

Parameter	EPP attribute	Requirement	Note
Tên miền	<domain:name>	Required	

2.3.8.2. Example command

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
  <delete>
    <domain:delete xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
      <domain:name>srsote-test.vn</domain:name>
    </domain:delete>
  </delete>
  <clTRID>srsote-domain-delete-123456</clTRID>
</command>
</epp>
```

2.3.8.3. Response message

- Response message example

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
  <result code="1000">
    <msg>Command completed successfully</msg>
  </result>
  <trID>
    <clTRID>srsote-domain-delete-123456</clTRID>
    <svTRID>VNNIC-EPP-f1229bdc-c016-495f-8f41-848f969d45a1</svTRID>
  </trID>
</response>
</epp>
```

2.3.8.4. Response codes

N0	Reason	Code	Note
1	Invalid input parameters	2005	
2	Object does not exist	2303	
3	Object status prohibits operation	2304	

2.4. Contact management

2.4.1. Overview

- Using all standard attributes of the contact object in RFC 5733 and an extension to manage organization and individual contacts.
- Do not support <contact:transfer>
- Contact is using only by the sponsoring registrar (who created this contact)
- VNNIC Contact extension as follow:

For organization

```
<extension>
  <vncontact:create
xmlns:vncontact="http://srs.vnnic.vn/epp/extensions/vncontact-1-0"
xsi:schemaLocation="http://srs.vnnic.vn/epp/extensions/vncontact-1-0
vncontact-1-0.xsd">
    <vncontact:extInfo type="org">
      <vncontact:intTraName>VNNIC</vncontact:intTraName>
      <vncontact:orgId>0101053720</vncontact:orgId>
    </vncontact:extInfo>
  </vncontact:create>
</extension>
```

For individual

```
<extension>
  <vncontact:create
xmlns:vncontact="http://srs.vnnic.vn/epp/extensions/vncontact-1-0"
xsi:schemaLocation="http://srs.vnnic.vn/epp/extensions/vncontact-1-0
vncontact-1-0.xsd">
    <vncontact:extInfo type="ind">
      <vncontact:IDPP>0313269551</vncontact:IDPP>
      <vncontact:gender>Nam</vncontact:gender>
      <vncontact:birthDate>1985-04-20</vncontact:birthDate>
      <vncontact:position>Chuyên viên</vncontact:position>
    </vncontact:extInfo>
  </vncontact:create>
</extension>
```

2.4.1.1. Response codes

N0	Reason	Code	Note
1	Parameter value syntax error	2005	
2	Authorization error	2201	
3	Object does not exist	2303	

4	Invalid authorization information	2202	
5	Required parameter missing	2003	
6	Object exists	2302	
7	Object status prohibits operation	2304	
8	Object association prohibits operation	2305	
9	Data management policy violation	2308	

2.4.2. Command <contact:check>

2.4.2.1. Input data

Parameter	EPP attribute	Requirement	Note
ContactID	<contact:id>	Required	

2.4.2.2. Example command

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
  <check>
    <contact:check xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
      <contact:id>srsote-test-01</contact:id>
      <contact:id>srsote-test-02</contact:id>
      <contact:id>srsote-test-03</contact:id>
    </contact:check>
  </check>
<clTRID>srsote-contact-check-123456</clTRID>
</command>
</epp>
```

2.4.2.3. Response message

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
<contact:chkData xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
```

```

<contact:cd>
<contact:id avail="0" xmlns:contact="urn:ietf:params:xml:ns:epp-1.0">srsote-
test-01</contact:id>
</contact:cd>
<contact:cd>
<contact:id avail="1" xmlns:contact="urn:ietf:params:xml:ns:epp-1.0">srsote-
test-02</contact:id>
</contact:cd>
<contact:cd>
<contact:id avail="1" xmlns:contact="urn:ietf:params:xml:ns:epp-1.0">srsote-
test-03</contact:id>
</contact:cd>
</contact:chkData>
</resData>
<trID>
<clTRID>srsote-contact-check-123456</clTRID>
<svTRID>VNNIC-EPP-baf1402e-f93f-48c7-80f9-8219f6eeaf92</svTRID>
</trID>
</response>
</epp>

```

2.4.3. Command <contact:info>

2.4.3.1. Rules

- The command is used to retrieve information associated with a contact object.
- If the querying client is the sponsoring client (the registrar who manage this contact object), all available information will returned.
- If the querying client is not the sponsoring client but have valid authorization information, all available information will returned.
- If the querying client is not the sponsoring client and the client does not provide valid authorization information, server will return an error code 2200
- If the querying client is not the sponsoring client and the client does not provide authorization information (without authorization information), server will return limited information , such as <contact:name>, ..

2.4.3.2. Input parameters

Parameter	EPP attribute	Requirement	Note
ContactID	<contact:id>	Required	
Authorization information	<contact:authInfo>	Optional	

2.4.3.3. Example command

- Request with <contact:authInfo>

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <command>
    <info>
      <contact:info
        xmlns:contact="urn:ietf:params:xml:ns:contact-1.0">
        <contact:id>srsote-test-01</contact:id>
        <contact:authInfo>
          <contact:pw>12345678</contact:pw>
        </contact:authInfo>
      </contact:info>
    </info>
    <clTRID>srsote-contact-info-123456</clTRID>
  </command>
</epp>
```

- Request without <contact:authInfo>

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <command>
    <info>
      <contact:info xmlns:contact="urn:ietf:params:xml:ns:contact-1.0">
        <contact:id>srsote-test-01</contact:id>
      </contact:info>
    </info>
    <clTRID>srsote-contact-info-123456</clTRID>
  </command>
</epp>
```

2.4.3.4. Response message

Client is not the sponsoring client, without authorization information

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <contact:infData xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
        xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
        <contact:id>82056_EF3C338483</contact:id>
        <contact:roid>CONTACT-31516</contact:roid>
        <contact:postalInfo type="int">
          <contact:name>Trung tâm Internet Việt Nam</contact:name>
        </contact:postalInfo>
        <contact:clID>qltn_epp</contact:clID>
      </contact:infData>
    </resData>
    <trID>
      <clTRID>srsote-contact-info-123456</clTRID>
      <svTRID>VNNIC-EPP-adc33d23-a66e-4092-a755-174de30b356e</svTRID>
    </trID>
  </response>
</epp>
```

```

</trID>
</response>
</epp>

```

Client is not the sponsoring client, have authorization information

- For organization

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
<contact:infData xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
<contact:id>82056_EF3C338483</contact:id>
<contact:roid>CONTACT-31516</contact:roid>
<contact:status s="ok"/>
<contact:status s="linked"/>
<contact:postalInfo type="loc">
<contact:name Trung tâm Internet Việt Nam</contact:name>
<contact:org>VNNIC</contact:org>
<contact:addr>
<contact:street> 18 Nguyễn Du, Hai Bà Trưng</contact:street>
<contact:city>HNI</contact:city>
<contact:sp/>
<contact:pc/>
<contact:cc>VN</contact:cc>
</contact:addr>
</contact:postalInfo>
<contact:voice>+84-4-35564944</contact:voice>
<contact:fax>+84-4-37821462</contact:fax>
<contact:email>info@vnnic.vn</contact:email>
<contact:clID>qltn_epp</contact:clID>
<contact:crID>migrate</contact:crID>
<contact:crDate>2013-04-18T10:23:47.0000</contact:crDate>
<contact:upID>migrate</contact:upID>
<contact:upDate>2014-06-06T15:58:41.0000</contact:upDate>
<contact:authInfo>
<contact:pw>12345678</contact:pw>
</contact:authInfo>
</contact:infData>
</resData>
<extension>
<vncontact:infData
xmlns:vncontact="http://srs.vnnic.vn/epp/extensions/vncontact-1-0"
xsi:schemaLocation="http://srs.vnnic.vn/epp/extensions/vncontact-1-0
vncontact-1-0.xsd">
<vncontact:extInfo type="org">
<vncontact:intTraName>VNNIC</vncontact:intTraName>
<vncontact:orgId>012140141</vncontact:orgId>
</vncontact:extInfo>

```

```

</vncontact:infData>
</extension>
<trID>
<clTRID>srsote-contact-info-123456</clTRID>
<svTRID>VNNIC-EPP-8b208019-539a-486a-bd16-0adef1aa595c</svTRID>
</trID>
</response>
</epp>

```

- For individual

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
<contact:infData xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
<contact:id>srsote-test-01</contact:id>
<contact:roid>CONTACT-1523784</contact:roid>
<contact:status s="ok"/>
<contact:postalInfo type="int">
<contact:name>SRSOTE-TEST-01</contact:name>
<contact:org>VNNIC</contact:org>
<contact:addr>
<contact:street>Hòa Lạc</contact:street>
<contact:city>HNI</contact:city>
<contact:sp/>
<contact:pc/>
<contact:cc>VN</contact:cc>
</contact:addr>
</contact:postalInfo>
<contact:voice>+84-123456789</contact:voice>
<contact:fax>+84-31231232</contact:fax>
<contact:email>tech@vnnic.vn</contact:email>
<contact:clID>ktthl_epp</contact:clID>
<contact:crID>ktthl_epp</contact:crID>
<contact:crDate>2014-08-26T13:49:26.0803</contact:crDate>
<contact:authInfo>
<contact:pw>12345678</contact:pw>
</contact:authInfo>
<contact:disclose flag="0">
<contact:fax/>
</contact:disclose>
</contact:infData>
</resData>
<extension>
<vncontact:infData
xmlns:vncontact="http://srs.vnnic.vn/epp/extensions/vncontact-1-0"
xsi:schemaLocation="http://srs.vnnic.vn/epp/extensions/vncontact-1-0
vncontact-1-0.xsd">
<vncontact:extInfo type="ind">
<vncontact:IDPP>0313269551</vncontact:IDPP>

```

```

<vncontact:gender>Male</vncontact:gender>
<vncontact:birthDate>1985-04-20</vncontact:birthDate>
<vncontact:position>Chuyên viên</vncontact:position>
</vncontact:extInfo>
</vncontact:infData>
</extension>
<trID>
<clTRID>srsote-contact-info-123456</clTRID>
<svTRID>VNNIC-EPP-9350d286-9a2b-4bb8-bf33-5466c3bed114</svTRID>
</trID>
</response>
</epp>

```

2.4.3.5. Client is the sponsoring client, all relevant information will return

- For organization

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
<contact:infData xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
<contact:id>srsote-test-02</contact:id>
<contact:roid>CONTACT-1524122</contact:roid>
<contact:status s="ok"/>
<contact:postalInfo type="int">
<contact:name>SRSOTE-TEST-02</contact:name>
<contact:org>Trung tâm Internet Việt Nam</contact:org>
<contact:addr>
<contact:street>18 Nguyễn Du</contact:street>
<contact:city>HNI</contact:city>
<contact:sp/>
<contact:pc/>
<contact:cc>VN</contact:cc>
</contact:addr>
</contact:postalInfo>
<contact:voice>+84-123456789</contact:voice>
<contact:fax>+84-31231232</contact:fax>
<contact:email>tech@vnnic.vn</contact:email>
<contact:clID>ktth1_epp</contact:clID>
<contact:crID>ktth1_epp</contact:crID>
<contact:crDate>2014-08-26T15:19:18.0891</contact:crDate>
<contact:authInfo>
<contact:pw>12345678</contact:pw>
</contact:authInfo>
<contact:disclose flag="0">
<contact:fax/>
</contact:disclose>
</contact:infData>
</resData>

```

```

<extension>
<vncontact:infData
xmlns:vncontact="http://srs.vnnic.vn/epp/extensions/vncontact-1-0"
xsi:schemaLocation="http://srs.vnnic.vn/epp/extensions/vncontact-1-0
vncontact-1-0.xsd">
<vncontact:extInfo type="org">
<vncontact:intTraName>VNNIC</vncontact:intTraName>
<vncontact:orgId>0101053720</vncontact:orgId>
</vncontact:extInfo>
</vncontact:infData>
</extension>
<trID>
<clTRID>srsote-contact-info-123456</clTRID>
<svTRID>VNNIC-EPP-ff4a6e86-cdcc-4817-84c3-d63aa2eedb39</svTRID>
</trID>
</response>
</epp>

```

- For individual

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<resData>
<contact:infData xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
<contact:id>srsote-test-01</contact:id>
<contact:roid>CONTACT-1523784</contact:roid>
<contact:status s="ok"/>
<contact:postalInfo type="int">
<contact:name>SRSOTE-TEST-01</contact:name>
<contact:org>VNNIC</contact:org>
<contact:addr>
<contact:street>Hòa Lạc</contact:street>
<contact:city>HNI</contact:city>
<contact:sp/>
<contact:pc/>
<contact:cc>VN</contact:cc>
</contact:addr>
</contact:postalInfo>
<contact:voice>+84-123456789</contact:voice>
<contact:fax>+84-31231232</contact:fax>
<contact:email>tech@vnnic.vn</contact:email>
<contact:clID>ktthl_epp</contact:clID>
<contact:crID>ktthl_epp</contact:crID>
<contact:crDate>2014-08-26T13:49:26.0803</contact:crDate>
<contact:authInfo>
<contact:pw>12345678</contact:pw>
</contact:authInfo>
<contact:disclose flag="0">
<contact:fax/>
</contact:disclose>

```

```

</contact:infData>
</resData>
<extension>
<vncontact:infData
xmlns:vncontact="http://srs.vnnic.vn/epp/extensions/vncontact-1-0"
xsi:schemaLocation="http://srs.vnnic.vn/epp/extensions/vncontact-1-0
vncontact-1-0.xsd">
<vncontact:extInfo type="ind">
<vncontact:IDPP>0313269551</vncontact:IDPP>
<vncontact:gender>Male</vncontact:gender>
<vncontact:birthDate>1985-04-20</vncontact:birthDate>
<vncontact:position>Chuyên viên</vncontact:position>
</vncontact:extInfo>
</vncontact:infData>
</extension>
<trID>
<clTRID>srsote-contact-info-123456</clTRID>
<svTRID>VNNIC-EPP-b2e3b125-457e-4425-8c23-ba3c47ed8b57</svTRID>
</trID>
</response>
</epp>

```

2.4.4. Command <contact:create>

2.4.4.1. Input data

Parameter	EPP attribute	Requirement	Note
ID Contact	<contact:id>	Required	
Internationalized or localized address type	<contact:postalInfo type="loc/int">	Required	
Registrant or Contact Name	<contact:name>	Required	
Organization name	<contact:org>	Required	
Address	<contact:street>	Required	
City	<contact:city>	Required	
Country code	<contact:cc>	Required	
Phone number	<contact:voice>	Required	
Fax number	<contact:fax>	Optional	
Email Address	<contact:email>	Required	
Data disclosure	<contact:disclose flag="0/1">	Required	

Extension			
Contact type (organization or individual)	<vncontact: extInfo type="ind/org">	Optional	
Organization Trade name	<vncontact: intTraName>	Optional	
Organization Identity	<vncontact: orgId>	Optional	
Identification or Passport number	<vncontact: IDPP>	Optional	
Gender	<vncontact: gender>	Optional	
Date of birth	<vncontact: birthDate>	Optional	
Working Possition	<vncontact: position>	Optional	

2.4.4.2. Example command

- Create an individual contact:

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
<create>
  <contact:create xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
    <contact:id>srsote-test-01</contact:id>
    <contact:postalInfo type="int">
      <contact:name>SRSOTE-TEST-01</contact:name>
      <contact:org>VNNIC</contact:org>
      <contact:addr>
        <contact:street>Hòa Lạc</contact:street>
        <contact:city>hni</contact:city>
        <contact:cc>VN</contact:cc>
      </contact:addr>
    </contact:postalInfo>
    <contact:postalInfo type="loc">
      <contact:name>SRSOTE-TEST-01</contact:name>
      <contact:org>VNNIC</contact:org>
      <contact:addr>
        <contact:street>Hòa Lạc</contact:street>
        <contact:city>hni</contact:city>
        <contact:cc>VN</contact:cc>
      </contact:addr>
    </contact:postalInfo>
  </contact:create>
</create>
</command>
</epp>
```

```

        <contact:voice>+84-123456789</contact:voice>
        <contact:fax>+84-31231232</contact:fax>
        <contact:email>tech@vnnic.vn</contact:email>
        <contact:authInfo>
            <contact:pw>12345678</contact:pw>
        </contact:authInfo>
        <contact:disclose flag="0">
            <contact:fax/>
        </contact:disclose>
    </contact:create>
</create>
<extension>
    <vncontact:create
xmlns:vncontact="http://srs.vnnic.vn/epp/extensions/vncontact-1-0"
xsi:schemaLocation="http://srs.vnnic.vn/epp/extensions/vncontact-1-0
vncontact-1-0.xsd">
        <vncontact:extInfo type="ind">
            <vncontact:IDPP>0313269551</vncontact:IDPP>
            <vncontact:gender>Male</vncontact:gender>
            <vncontact:birthDate>1985-04-20</vncontact:birthDate>
            <vncontact:position>Chuyên viên</vncontact:position>
        </vncontact:extInfo>
    </vncontact:create>
</extension>
<clTRID>srsote-contact-create-ind-123456</clTRID>
</command>
</epp>

```

- Create an organization contact:

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
<create>
    <contact:create xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
        <contact:id>srsote-test-02</contact:id>
        <contact:postalInfo type="int">
            <contact:name>SRSOTE-TEST-02</contact:name>
            <contact:org>Trung Tâm Internet Việt Nam</contact:org>
            <contact:addr>
                <contact:street>18 Nguyễn Du</contact:street>
                <contact:city>hni</contact:city>
                <contact:cc>VN</contact:cc>
            </contact:addr>
        </contact:postalInfo>
        <contact:voice>+84-123456789</contact:voice>
        <contact:fax>+84-31231232</contact:fax>
        <contact:email>tech@vnnic.vn</contact:email>
        <contact:authInfo>
            <contact:pw>12345678</contact:pw>
        </contact:authInfo>
        <contact:disclose flag="0">
            <contact:fax/>
        </contact:disclose>
    </contact:create>
</create>
</command>
</epp>

```

```

        </contact:create>
    </create>
    <extension>
        <vncontact:create
xmlns:vncontact="http://srs.vnnic.vn/epp/extensions/vncontact-1-0"
xsi:schemaLocation="http://srs.vnnic.vn/epp/extensions/vncontact-1-0
vncontact-1-0.xsd">
            <vncontact:extInfo type="org">
                <vncontact:intTraName>VNNIC</vncontact:intTraName>
                <vncontact:orgId>0101053720</vncontact:orgId>
            </vncontact:extInfo>
        </vncontact:create>
    </extension>
    <clTRID>srsote-contact-create-org-123456</clTRID>
</command>
</epp>

```

2.4.4.3. Response message

- Example response message:

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
    <response>
        <result code="1000">
            <msg>Command completed successfully</msg>
        </result>
        <resData>
            <contact:creData xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
                <contact:id>srsote-test-01</contact:id>
                <contact:crDate>2014-08-26T15:25:44.0247</contact:crDate>
            </contact:creData>
        </resData>
        <trID>
            <clTRID>srsote-contact-create-123456</clTRID>
            <svTRID>VNNIC-EPP-e9962f31-27ee-4dfe-b329-f6867e9a7878</svTRID>
        </trID>
    </response>
</epp>

```

2.4.5. Command <contact:update>

This command provides a transform operation that allows a client to modify the attributes of a contact object already existed.

2.4.5.1. Input data

- Refer to <contact:create>
- Do not allow change attribute <vncontact: extInfo type="ind/org">

2.4.5.2. Example command

- For organization

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
  <update>
    <contact:update xmlns:contact="urn:ietf:params:xml:ns:contact-
1.0" xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
      <contact:id>srsote-test-02</contact:id>
      <contact:add>
        <contact:status s="clientDeleteProhibited"/>
      </contact:add>
      <contact:chg>
        <contact:postalInfo type="int">
          <contact:addr>
            <contact:city>hni</contact:city>
            <contact:cc>vn</contact:cc>
          </contact:addr>
        </contact:postalInfo>
        <contact:voice>+84-35564944</contact:voice>
        <contact:fax>+84-35564944</contact:fax>
        <contact:email>tech@vnnic.vn</contact:email>
      </contact:chg>
    </contact:update>
  </update>
  <extension>
    <vncontact:update
xmlns:vncontact="http://srs.vnnic.vn/epp/extensions/vncontact-1-0"
xsi:schemaLocation="http://srs.vnnic.vn/epp/extensions/vncontact-1-0
vncontact-1-0.xsd">
      <vncontact:extInfo type="org">
        <vncontact:intTraName>VNNIC</vncontact:intTraName>
        <vncontact:orgId>0101053720</vncontact:orgId>
      </vncontact:extInfo>
    </vncontact:update>
  </extension>
  <clTRID>srsote-contact-update-123456</clTRID>
</command>
</epp>
```

- For individual

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
  <update>
    <contact:update xmlns:contact="urn:ietf:params:xml:ns:contact-
1.0" xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
      <contact:id>srsote-test-01</contact:id>
      <contact:add>
```

```

        <contact:status s="clientDeleteProhibited"/>
      </contact:add>
      <contact:chg>
        <contact:postalInfo type="int">
          <contact:addr>
            <contact:street>Đường Dương Đình
Nghệ</contact:street>
            <contact:city>hni</contact:city>
            <contact:cc>vn</contact:cc>
          </contact:addr>
        </contact:postalInfo>
        <contact:voice>+84-35564944</contact:voice>
        <contact:fax>+84-35564944</contact:fax>
        <contact:email>tech@vnnic.vn</contact:email>
      </contact:chg>
    </contact:update>
  </update>
  <extension>
    <vncontact:update
xmlns:vncontact="http://srs.vnnic.vn/epp/extensions/vncontact-1-0"
xsi:schemaLocation="http://srs.vnnic.vn/epp/extensions/vncontact-1-0
vncontact-1-0.xsd">
      <vncontact:extInfo type="ind">
        <vncontact:IDPP>0313269551</vncontact:IDPP>
        <vncontact:gender>Male</vncontact:gender>
        <vncontact:birthDate>1985-04-20</vncontact:birthDate>
        <vncontact:position>Chuyên viên</vncontact:position>
      </vncontact:extInfo>
    </vncontact:update>
  </extension>
  <clTRID>srsote-contact-update-status-123456</clTRID>
</command>
</epp>

```

2.4.5.3. Response message

- Example response message

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>srsote-contact-update-123456</clTRID>
      <svTRID>VNNIC-EPP-f9889c3e-3be3-4584-80a1-578e4ea83f8b</svTRID>
    </trID>
  </response>
</epp>

```

2.4.6. Command <contact:delete>

2.4.6.1. Input data

Parameter	EPP attribute	Requirement	Note
ContactID	<contact:id>	Required	

2.4.6.2. Example command

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<command>
  <delete>
    <contact:delete xmlns:contact="urn:ietf:params:xml:ns:contact-
1.0" xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
      <contact:id>srsote-test-01</contact:id>
    </contact:delete>
  </delete>
  <clTRID>srsote-contact-delete-123456</clTRID>
</command>
</epp>
```

2.4.6.3. Response message

- Example response message

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1000">
<msg>Command completed successfully</msg>
</result>
<trID>
<clTRID>srsote-contact-delete-123456</clTRID>
<svTRID>VNNIC-EPP-cdbaeaad-1ac3-4a7d-b63c-be8c954d375e</svTRID>
</trID>
</response>
</epp>
```

2.5. Message poll management

2.5.1. Overview

- This command is used to discover and retrieve service messages queued by a server for each registrar.
- Have limitation on Number of Message ($m < M = \text{MaximumMessagePoll}$)
- Have limitation on Message Life Time count by days ($t < L = \text{MaximumMessageLife Time}$)

2.5.2. Command <poll op="req">

2.5.2.1. Input data

2.5.2.2. Example command

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0
    epp-1.0.xsd">
  <command>
    <poll op="req"/>
    <clTRID>srsote-poll-req-123456</clTRID>
  </command>
</epp>
```

2.5.2.3. Response message

- Empty queue:

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1300">
      <msg>Command completed successfully; no messages</msg>
    </result>
    <trID>
      <clTRID>srsote-poll-req-123456</clTRID>
      <svTRID>VNNIC-EPP-75158fc3-d697-4734-ac3d-4476edc0551b</svTRID>
    </trID>
  </response>
</epp>
```

- Normal case, have message in queue:

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1301">
      <msg>Command completed successfully; ack to dequeue</msg>
    </result>
    <msgQ count="135" id="DOMAIN-586">
      <qDate>2014-07-02T11:45:40.0186</qDate>
      <msg>Domain Transfer Request</msg>
    </msgQ>
    <resData>
      <domain:trnData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
        xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
        <domain:name>ktth04.vn</domain:name>
        <domain:trStatus>pending</domain:trStatus>
        <domain:reID>qltn_epp</domain:reID>
      </domain:trnData>
    </resData>
  </response>
</epp>
```

```

<domain:reDate>2014-07-02T11:45:40.0151</domain:reDate>
<domain:acID>ktth1_epp</domain:acID>
<domain:acDate>2014-07-07T11:45:40.0151</domain:acDate>
<domain:exDate>2017-07-01T00:00:00.0000</domain:exDate>
</domain:trnData>
</resData>
<trID>
<clTRID>srsote-poll-req-123456</clTRID>
<svTRID>VNNIC-EPP-cad939b2-27b4-4668-8a41-6a6093a3b15b</svTRID>
</trID>
</response>
</epp>

```

2.5.3. Command <poll op="ack">

2.5.3.1. Input data

Parameter	EPP attribute	Requirement	Note
Message ID	<poll op="ack" msgID="xxxxx">	Required	

2.5.3.2. Example command

```

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0
    epp-1.0.xsd">
  <command>
    <poll op="ack" msgID="DOMAIN-561"/>
    <clTRID>srsote-poll-ack-123456</clTRID>
  </command>
</epp>

```

2.5.3.3. Response message

- Example message response:

```

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>srsote-poll-ack-123456</clTRID>
      <svTRID>VNNIC-EPP-70bff424-02f9-44a3-a85d-e3193cf38669</svTRID>
    </trID>
  </response>
</epp>

```

2.5.4. Poll message from Registry

- All change on objects belong to registrar from Registry should be noticed to Registrars through <poll> messages, Registrar have to use <info> command to get detail information of updated objects.
- All template here is about content in tag <resData></resData> of <poll> messages

2.5.4.1. Domain object deleted by Registry

- Poll message

```
<msg>DOMAIN=<domainName>; ROID=<roid>; ACTION=delete; ACTIONBY=<actionBy>;
ACTIONDATE=<actionDate>; NOTE=<note>
</msg>
```

- With:
 - o <domainName>: The domain name of deleted domain object
 - o <roid>: roid value of this domain object
 - o <actionBy>: Actor
 - o <actionDate> : Action time, in standard format : "yyyy-MM-dd'T'HH':'mm':'ss'.SSSS"
 - o <note>: Comment of registry about this action
- Example:

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1301">
<msg>Command completed successfully; ack to dequeue</msg>
</result>
<msgQ count="135" id="REGISTRY-220186">
<qDate>2014-08-27T14:03:55.0411</qDate>
<msg>DOMAIN=srsote-test.vn; ROID=DOMAIN-1523751; ACTION=delete;
ACTIONBY=registry; ACTIONDATE=2014-08-27T14:03:55.0292; NOTE=test</msg>
</msgQ>
<trID>
<clTRID>srsote-poll-req-123456</clTRID>
<svTRID>VNNIC-EPP-0ade2f42-3612-460c-9ff9-f27c20ea8b5b</svTRID>
</trID>
</response>
</epp>
```

2.5.4.2. Domain object updated by Registry

- Poll message

```
<msg>
DOMAIN=<domainName>; ROID=<roid>; ACTION=update; ACTIONBY=<actionBy>;
ACTIONDATE=<actionDate>; NOTE=<note>
```

```
</msg>
```

- With
 - <domainName>: The domain name of updated domain object
 - <roid>: roid value of this domain object
 - <actionBy>: Actor
 - <actionDate> : Action time, in standard format : “yyyy-MM-dd'T'HH':'mm':'ss'.SSSS”
 - <note>: Comment of registry about this action
- Example:

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1301">
<msg>Command completed successfully; ack to dequeue</msg>
</result>
<msgQ count="135" id="REGISTRY-178385">
<qDate>2014-08-26T10:47:45.0269</qDate>
<msg>DOMAIN=srsote-test.vn; ROID=DOMAIN-1523751; ACTION=update;
ACTIONBY=registry; ACTIONDATE=2014-08-26T10:47:45.0263; NOTE=</msg>
</msgQ>
<trID>
<clTRID>srsote-poll-req-123456</clTRID>
<svTRID>VNNIC-EPP-5f621126-3ce2-4d38-ac65-6f4e90537601</svTRID>
</trID>
</response>
</epp>
```

2.5.4.3. Domain transfer action by Registry

- Incase of approve or reject a domain object in pendingTransfer status, the message poll information is the same in normal case, acted by Registrar.

2.5.4.4. Contact object deleted by Registry

- Poll message

```
<msg>
CONTACT=<ContactID>; ROID=<roid>; ACTION=delete; ACTIONBY=<actionBy>;
ACTIONDATE=<actionDate>; NOTE=<note>
</msg>
```

- With:
 - <ContactID>: The ContactID of deleted contact object
 - <roid>: roid value of this contact object
 - <actionBy>: Actor

- <actionDate> : Action time, in standard format : “yyyy-MM-dd'T'HH':'mm':'ss'.'SSSS”
- <note>: Comment of registry about this action

- Example:

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1301">
      <msg>Command completed successfully; ack to dequeue</msg>
    </result>
    <msgQ count="135" id="REGISTRY-186168">
      <qDate>2014-08-26T15:24:41.0374</qDate>
      <msg>CONTACT=srsote-test-01; ROID=CONTACT-1523784; ACTION=delete;
ACTIONBY=registry; ACTIONDATE=2014-08-26T15:24:41.0050; NOTE=test</msg>
    </msgQ>
    <trID>
      <clTRID>srsote-poll-req-123456</clTRID>
      <svTRID>VNNIC-EPP-481eea27-2d4b-4c79-b1a4-829100d34e83</svTRID>
    </trID>
  </response>
</epp>
```

2.5.4.5. Contact object updated by Registry

- Poll message:

```
<msg>
CONTACT=<ContactID>; ROID=<roid>; ACTION=update; ACTIONBY=<actionBy>;
ACTIONDATE=<actionDate>; NOTE=<note>
</msg>
```

- With:

- <ContactID>: The ContactID of updated contact object
- <roid>: roid value of this contact object
- <actionBy>: Actor
- <actionDate> : Action time, in standard format : “yyyy-MM-dd'T'HH':'mm':'ss'.'SSSS”
- <note>: Comment of registry about this action

- Example:

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1301">
      <msg>Command completed successfully; ack to dequeue</msg>
    </result>
```

```
<msgQ count="135" id="REGISTRY-215808">
<qDate>2014-08-27T09:12:06.0923</qDate>
<msg>CONTACT=srsote-test-01; ROID=CONTACT-1524396; ACTION=update;
ACTIONBY=registry; ACTIONDATE=2014-08-27T09:12:06.0910; NOTE=test</msg>
</msgQ>
<trID>
<clTRID>srsote-poll-req-123456</clTRID>
<svTRID>VNNIC-EPP-ebf50feb-e1cc-4ee3-9139-332644184590</svTRID>
</trID>
</response>
</epp>
```

2.5.4.6. Adding Deposit

- Poll message:

```
<msg>
DEPOSITBALANCE=<New Deposit Balance>; ACTION=ADD; AMOUNT=<Added Amount>;
ACTIONBY=<actionedBy>; ACTIONDATE=<actionDate>; NOTE=<note>
</msg>
```

- With:

- o < New Deposit Balance >: Totally Deposit Balance
- o < Added Amount >: Deposit added amount
- o <actionBy>: Actor
- o <actionDate> : Action time, in standard format : "yyyy-MM-dd'T'HH':'mm':'ss'.SSSS"
- o <note>: Comment of registry about this action

- Example:

```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
<response>
<result code="1301">
<msg>Command completed successfully; ack to dequeue</msg>
</result>
<msgQ count="135" id="REGISTRY-215808">
<qDate>2014-08-27T09:12:06.0923</qDate>
<msg>DEPOSITBALANCE=55000000; ACTION=ADD; AMOUNT=50000000; ACTIONBY=registry;
ACTIONDATE=2014-08-27T09:12:06.0910; NOTE=test
</msg>
</msgQ>
<trID>
<clTRID>srsote-poll-req-123456</clTRID>
<svTRID>VNNIC-EPP-ebf50feb-e1cc-4ee3-9139-332644184590</svTRID>
</trID>
</response>
</epp>
```

Part 3. Mapping EPP to VNNIC domain name tasks.

3.1. Create a domain name

3.1.1. Step by step

Step	Description	EPP command	Requirement
1.	Check if the domain name is available	<domain:check>	Optional
2.	- Check if all relevant contacts are existed - Update contact information if necessary - Create all relevant contacts if necessary	<contact:check> <contact:info> <contact:update> <contact:create>	Optional
3.	Created domain name	<domain:create>	Required

3.1.2. Notes

3.1.2.1. If the registrant is an organization

Create domain with <domain:registrant> is a contact object which having
<vncontact:extInfo type="org">

3.1.2.2. If the registrant is an individual

Create domain with <domain:registrant> is a contact object which having
<vncontact:extInfo type="ind">

3.1.2.3. If using self delegate name server

At least one IPv4 or IPv6 is required in this case, an example for a domain example.vn is:

```
<domain:ns>
<domain:hostAttr>
<domain:hostName>dns1.vnnic.vn</domain:hostName>
</domain:hostAttr>
<domain:hostAttr>
  <domain:hostName>ns1.example.vn</domain:hostName>
  <domain:hostAddr ip="v4">1.1.1.1</domain:hostAddr>
  <domain:hostAddr ip="v6">2001:dc8::0:42</domain:hostAddr>
</domain:hostAttr>
</domain:ns>
```

3.2. Renew a domain name

3.2.1. Step by step

Step	Description	EPP command	Requirement
1.	Check if the domain name is exist	<domain:check>	Optional
2.	Get domain name information, special current expired date.	<domain:info>	Optional
3.	Renew domain name	<domain:renew>	Required

3.3. Change domain or contact informations

3.3.1. Step by step

Step	Description	EPP command	Requirement
1.	Check if the domain name is exist	<domain:check>	Optional
2.	Get domain name informations	<domain:info>	Optional
3a.	Update domain object	<domain:update>	Required
3b.	Update contact object	<contact:check>	Optional
		<contact:info>	Optional
		<contact:update>	Required

3.3.2. Cases

3.3.2.1. Update Authorization information

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <command>
    <update>
      <domain:update>
        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
        xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
          <domain:name>example.com.vn</domain:name>
          <domain:chg>
            <domain:authInfo>
              <domain:pw>2fooBAR</domain:pw>
            </domain:authInfo>
          </domain:chg>
        </domain:update>
      </update>
      <clTRID>ABC-12345-XYZ</clTRID>
    </command>
  </epp>
```

3.3.2.2. Change contact object for admin contact

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
```

```

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <command>
    <update>
      <domain:update>
        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
        <domain:name>example.com.vn</domain:name>
        <domain:chg>
          <domain:contact type="admin">
            84008023_DED1CB8D13D49E41F19E985
          </domain:contact>
        </domain:chg>
      </domain:update>
    </update>
    <clTRID>ABC-12345-XYZ</clTRID>
  </command>
</epp>

```

3.3.2.3. Change contact object for technical contact

Do the same command like admin contact with parameters `<domain:contact type="admin">`

3.4. Change name servers

3.4.1. Step by step

Step	Description	EPP command	Requirement
1	Check if domain name exist	<code><domain:check></code>	Optional
2	Get domain name current informations	<code><domain:info></code>	Optional
3	Update new name server	<code><domain:update></code>	Required

3.5. Holding a domain name

3.5.1. Step by step

Step	Description	EPP command	Requirement
1.	Check if domain name exist	<code><domain:check></code>	Optional
2.	Get domain name current informations	<code><domain:info></code>	Optional
3.	Update domain status	<code><domain:update></code>	Required

3.5.2. Example

```

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <command>
    <update>
      <domain:update xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
        <domain:name>test.com.vn </domain:name>
        <domain:add>
          <domain:status s="clientHold" lang="en">

```

```

        Payment overdue.
    </domain:status>
</domain:add>
</domain:update>
</update>
<clTRID>ABC-12345</clTRID>
</command>
</epp>

```

3.6. Restore/reactive a domain name

3.6.1. Step by step

Step	Description	EPP command	Requirement
1.	Check if domain name exist	<domain:check>	Optional
2.	Get domain name current informations	<domain:info>	Optional
3.	Update domain status	<domain:update>	Required

3.6.2. Example

```

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
<command>
  <update>
    <domain:update xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
      <domain:name>test.com.vn </domain:name>
      <domain:rem>
        <domain:status s="clientHold" lang="en">
          Payment overdue.
        </domain:status>
      </domain:rem>
    </domain:update>
  </update>
  <clTRID>ABC-12345</clTRID>
</command>
</epp>

```

3.7. Transfer a domain name

3.7.1. Step by step

Step	Description	EPP command	Requirement
1.	Check if domain name exist	<domain:check>	Optional
2.	Get domain name current informations	<domain:info>	Optional
3.	The Lost Registrar unlock domain by remove clientTransferProhibited status	<domain:update>	Required
4.	The Gain Registrar request transfer	<domain:transfer op="request">	Required
5.	The Gain/Lost Registrar query transfer status	<domain:transfer op="query">	Optional

6.	The Lost Registrar approve transfer request	<domain:transfer op="approve">	Required
----	---	-----------------------------------	----------

3.7.2. Example

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
<command>
<update>
    <domain:update
        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
        <domain:name>test.com.vn </domain:name>
        <domain:rem>
            <domain:status s="clientTransferProhibited"/>
        </domain:rem>
        </domain:update>
    </update>
    <clTRID>ABC-12345</clTRID>
</command>
</epp>
```

Part 4. References

4.1. RFC documents

- Extensible Provisioning Protocol (EPP) RFC 5730

(<http://www.ietf.org/rfc/rfc5730.txt>)

- Extensible Provisioning Protocol (EPP) Domain Name Mapping FRC 5731

(<http://www.ietf.org/rfc/rfc5731.txt>)

- Extensible Provisioning Protocol (EPP) Host Mapping RFC 5732

(<http://www.ietf.org/rfc/rfc5732.txt>)

- Extensible Provisioning Protocol (EPP) Contact Mapping RFC 5733

(<http://www.ietf.org/rfc/rfc5733.txt>)

- Extensible Provisioning Protocol (EPP) Transport Over TCP RFC 5734

(<http://www.ietf.org/rfc/rfc5734.txt>)

- Guidelines for Extending the Extensible Provisioning Protocol (EPP) RFC 3735 (<http://www.ietf.org/rfc/rfc3735.txt>)

- Others relevant RFC ...

4.2. EPP client opensource

- Verisign EPP Software Development Kits

http://www.verisign.com/information-services/namingservices/page_001081.html

- Source Forge

<http://sourceforge.net/projects/epp-rtk>

http://sourceforge.net/project/showfiles.php?group_id=26675

<http://epp-rtk.sourceforge.net/epp-howto.html>

4.3. Appendix

4.3.1. List CityCode of Vietnam

Order	City Name	City Code
1	An Giang	AGG
2	Ba Ria - Vung Tau	BRV
3	Binh Duong	BDG
4	Binh Phuoc	BPC
5	Binh Thuan	BTN
6	Binh Dinh	BDH
7	Bac Lieu	BLN
8	Bac Giang	BGG
9	Bac Kan	BKN
10	Bac Ninh	BNH
11	Ben Tre	BTE
12	Cao Bang	CBG
13	Ca Mau	CMU
14	Can Tho	CTO
15	Gia Lai	GLI
16	Ha Giang	HAG
17	Ha Nam	HNH
18	Ha Noi	HNI
19	Ha Tinh	HTH
20	Hoa Binh	HBH
21	Hung Yen	HYN
22	Hai Duong	HDG
23	Hai Phong	HPG
24	Hau Giang	HUG
25	Khanh Hoa	KHN
26	Kien Giang	KGN
27	Kon Tum	KTM
28	Lai Chau	LCU
29	Long An	LAN
30	Lao Cai	LCI
31	Lam Dong	LDG
32	Lang Son	LSN
33	Nam Dinh	NDH
34	Nghe An	NAN

35	Ninh Binh	NBH
36	Ninh Thuan	NTN
37	Phu Tho	PTO
38	Phu Yen	PYN
39	Quang Binh	QBH
40	Quang Nam	QNM
41	Quang Ngai	QNI
42	Quang Ninh	QNH
43	Quang Tri	QTI
44	Soc Trang	STG
45	Son La	SLA
46	TP HCM	HCM
47	Thanh Hoa	THA
48	Thai Binh	TBH
49	Thai Nguyen	TNN
50	Thua Thien Hue	TTH
51	Tien Giang	TGG
52	Tra Vinh	TVH
53	Tuyen Quang	TQG
54	Tay Ninh	TNH
55	Vinh Long	VLG
56	Vinh Phuc	VPC
57	Yen Bai	YBI
58	Dien Bien	DBN
59	Da Nang	DNG
60	Dak Lak	DLK
61	Dak Nong	DAG
62	Dong Nai	DNI
63	Dong Thap	DTP

4.3.2. Country Code

Order	Country Name	Country Code
1	Andorra	AD
2	United Arab Emirates (the)	AE
3	Afghanistan	AF
4	Antigua and Barbuda	AG
5	Anguilla	AI
6	Albania	AL

7	Armenia	AM
8	Angola	AO
9	Antarctica	AQ
10	Argentina	AR
11	American Samoa	AS
12	Austria	AT
13	Australia	AU
14	Aruba	AW
15	Åland Islands	AX
16	Azerbaijan	AZ
17	Bosnia and Herzegovina	BA
18	Barbados	BB
19	Bangladesh	BD
20	Belgium	BE
21	Burkina Faso	BF
22	Bulgaria	BG
23	Bahrain	BH
24	Burundi	BI
25	Benin	BJ
26	Saint Barthélemy	BL
27	Bermuda	BM
28	Brunei Darussalam	BN
29	Bolivia (Plurinational State of)	BO
30	Bonaire, Sint Eustatius and Saba	BQ
31	Brazil	BR
32	Bahamas (the)	BS
33	Bhutan	BT
34	Bouvet Island	BV
35	Botswana	BW
36	Belarus	BY
37	Belize	BZ
38	Canada	CA
39	Cocos (Keeling) Islands (the)	CC
40	Congo (the Democratic Republic of the)	CD
41	Central African Republic (the)	CF
42	Congo (the)	CG
43	Switzerland	CH

44	Côte d'Ivoire	CI
45	Cook Islands (the)	CK
46	Chile	CL
47	Cameroon	CM
48	China	CN
49	Colombia	CO
50	Costa Rica	CR
51	Cuba	CU
52	Cabo Verde	CV
53	Curaçao	CW
54	Christmas Island	CX
55	Cyprus	CY
56	Czechia	CZ
57	Germany	DE
58	Djibouti	DJ
59	Denmark	DK
60	Dominica	DM
61	Dominican Republic (the)	DO
62	Algeria	DZ
63	Ecuador	EC
64	Estonia	EE
65	Egypt	EG
66	Western Sahara	EH
67	Eritrea	ER
68	Spain	ES
69	Ethiopia	ET
70	Finland	FI
71	Fiji	FJ
72	Falkland Islands (the) [Malvinas]	FK
73	Micronesia (Federated States of)	FM
74	Faroe Islands (the)	FO
75	France	FR
76	Gabon	GA
77	United Kingdom of Great Britain and Northern Ireland (the)	GB
78	Grenada	GD
79	Georgia	GE
80	French Guiana	GF

81	Guernsey	GG
82	Ghana	GH
83	Gibraltar	GI
84	Greenland	GL
85	Gambia (the)	GM
86	Guinea	GN
87	Guadeloupe	GP
88	Equatorial Guinea	GQ
89	Greece	GR
90	South Georgia and the South Sandwich Islands	GS
91	Guatemala	GT
92	Guam	GU
93	Guinea-Bissau	GW
94	Guyana	GY
95	Hong Kong	HK
96	Heard Island and McDonald Islands	HM
97	Honduras	HN
98	Croatia	HR
99	Haiti	HT
100	Hungary	HU
101	Indonesia	ID
102	Ireland	IE
103	Israel	IL
104	Isle of Man	IM
105	India	IN
106	British Indian Ocean Territory (the)	IO
107	Iraq	IQ
108	Iran (Islamic Republic of)	IR
109	Iceland	IS
110	Italy	IT
111	Jersey	JE
112	Jamaica	JM
113	Jordan	JO
114	Japan	JP
115	Kenya	KE
116	Kyrgyzstan	KG
117	Cambodia	KH

118	Kiribati	KI
119	Comoros (the)	KM
120	Saint Kitts and Nevis	KN
121	Korea (the Democratic People's Republic of)	KP
122	Korea (the Republic of)	KR
123	Kuwait	KW
124	Cayman Islands (the)	KY
125	Kazakhstan	KZ
126	Lao People's Democratic Republic (the)	LA
127	Lebanon	LB
128	Saint Lucia	LC
129	Liechtenstein	LI
130	Sri Lanka	LK
131	Liberia	LR
132	Lesotho	LS
133	Lithuania	LT
134	Luxembourg	LU
135	Latvia	LV
136	Libya	LY
137	Morocco	MA
138	Monaco	MC
139	Moldova (the Republic of)	MD
140	Montenegro	ME
141	Saint Martin (French part)	MF
142	Madagascar	MG
143	Marshall Islands (the)	MH
144	Republic of North Macedonia	MK
145	Mali	ML
146	Myanmar	MM
147	Mongolia	MN
148	Macao	MO
149	Northern Mariana Islands (the)	MP
150	Martinique	MQ
151	Mauritania	MR
152	Montserrat	MS
153	Malta	MT
154	Mauritius	MU

155	Maldives	MV
156	Malawi	MW
157	Mexico	MX
158	Malaysia	MY
159	Mozambique	MZ
160	Namibia	NA
161	New Caledonia	NC
162	Niger (the)	NE
163	Norfolk Island	NF
164	Nigeria	NG
165	Nicaragua	NI
166	Netherlands (the)	NL
167	Norway	NO
168	Nepal	NP
169	Nauru	NR
170	Niue	NU
171	New Zealand	NZ
172	Oman	OM
173	Panama	PA
174	Peru	PE
175	French Polynesia	PF
176	Papua New Guinea	PG
177	Philippines (the)	PH
178	Pakistan	PK
179	Poland	PL
180	Saint Pierre and Miquelon	PM
181	Pitcairn	PN
182	Puerto Rico	PR
183	Palestine, State of	PS
184	Portugal	PT
185	Palau	PW
186	Paraguay	PY
187	Qatar	QA
188	Réunion	RE
189	Romania	RO
190	Serbia	RS
191	Russian Federation (the)	RU

192	Rwanda	RW
193	Saudi Arabia	SA
194	Solomon Islands	SB
195	Seychelles	SC
196	Sudan (the)	SD
197	Sweden	SE
198	Singapore	SG
199	Saint Helena, Ascension and Tristan da Cunha	SH
200	Slovenia	SI
201	Svalbard and Jan Mayen	SJ
202	Slovakia	SK
203	Sierra Leone	SL
204	San Marino	SM
205	Senegal	SN
206	Somalia	SO
207	Suriname	SR
208	South Sudan	SS
209	Sao Tome and Principe	ST
210	El Salvador	SV
211	Sint Maarten (Dutch part)	SX
212	Syrian Arab Republic	SY
213	Eswatini	SZ
214	Turks and Caicos Islands (the)	TC
215	Chad	TD
216	French Southern Territories (the)	TF
217	Togo	TG
218	Thailand	TH
219	Tajikistan	TJ
220	Tokelau	TK
221	Timor-Leste	TL
222	Turkmenistan	TM
223	Tunisia	TN
224	Tonga	TO
225	Turkey	TR
226	Trinidad and Tobago	TT
227	Tuvalu	TV
228	Taiwan (Province of China)	TW

229	Tanzania, United Republic of	TZ
230	Ukraine	UA
231	Uganda	UG
232	United States Minor Outlying Islands (the)	UM
233	United States of America (the)	US
234	Uruguay	UY
235	Uzbekistan	UZ
236	Holy See (the)	VA
237	Saint Vincent and the Grenadines	VC
238	Venezuela (Bolivarian Republic of)	VE
239	Virgin Islands (British)	VG
240	Virgin Islands (U.S.)	VI
241	Viet Nam	VN
242	Vanuatu	VU
243	Wallis and Futuna	WF
244	Samoa	WS
245	Yemen	YE
246	Mayotte	YT
247	South Africa	ZA
248	Zambia	ZM
249	Zimbabwe	ZW