VIETNAM INTERNET NETWORK INFORMATION CENTER - VNNIC

TECHNICAL DEPARTMENT

VNNIC EPP GATEWAY SPEC DRAFT

VNNIC EPP GATEWAY SPECIFICATION

(Version 4)

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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. EPP Overview

1.2.1. What is EPP

- The Extensible Provisioning Protocol (EPP) is flexible protocol designed for allocating objects within registries over the Internet, specialy 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.

1.2.2. EPP State Machine

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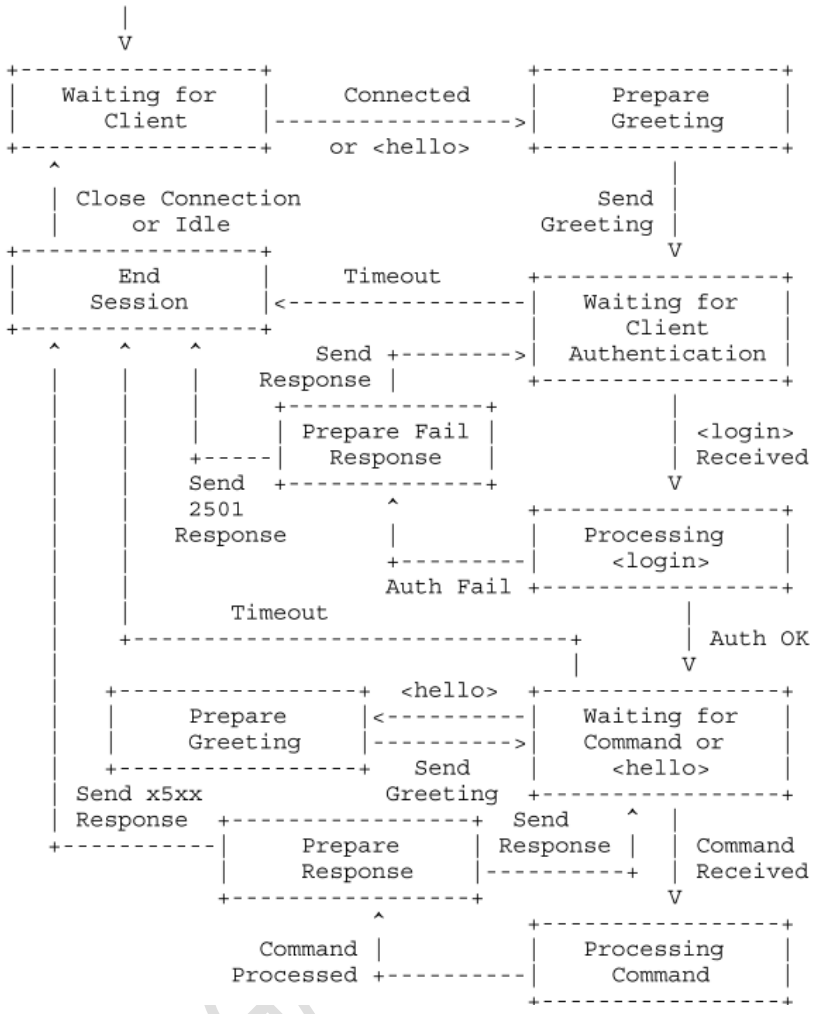
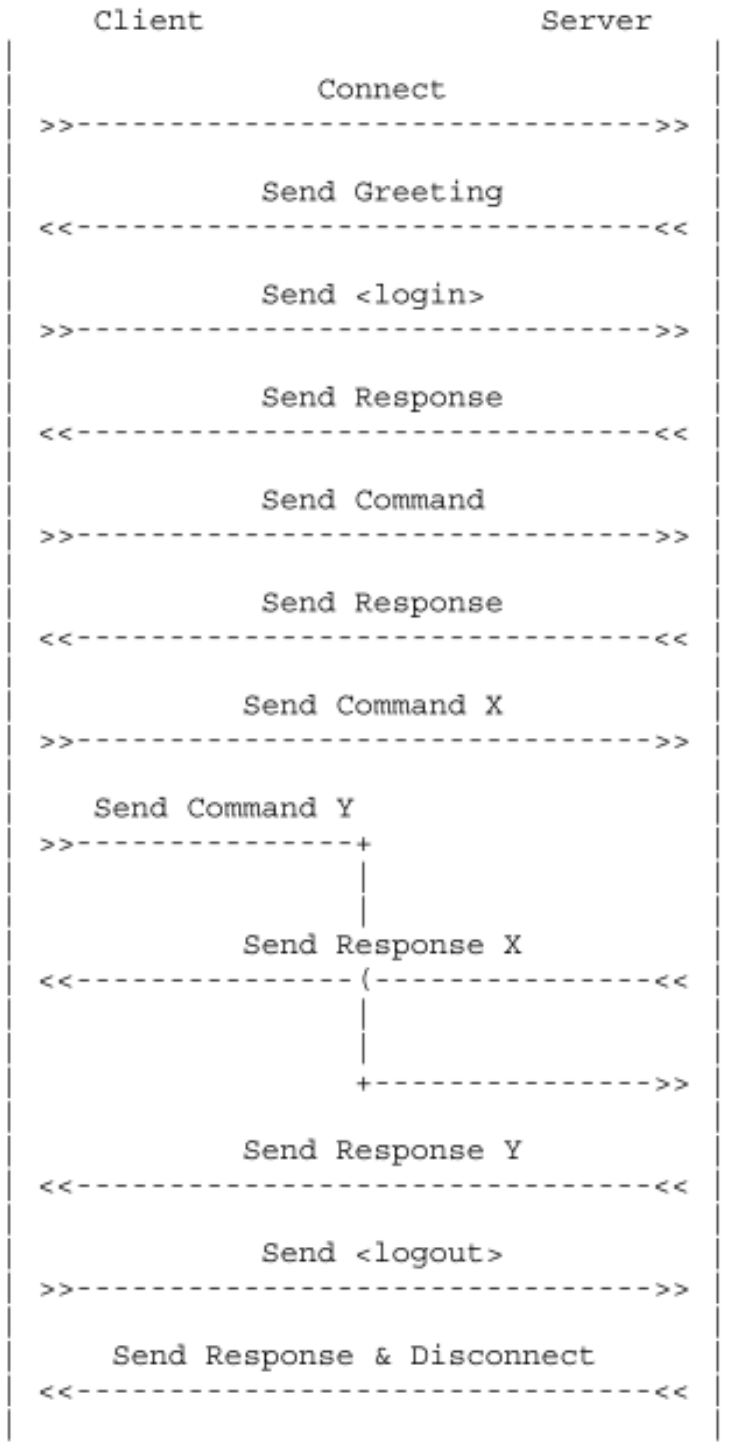


1.2.3. EPP Client – Server Message Exchange

- 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

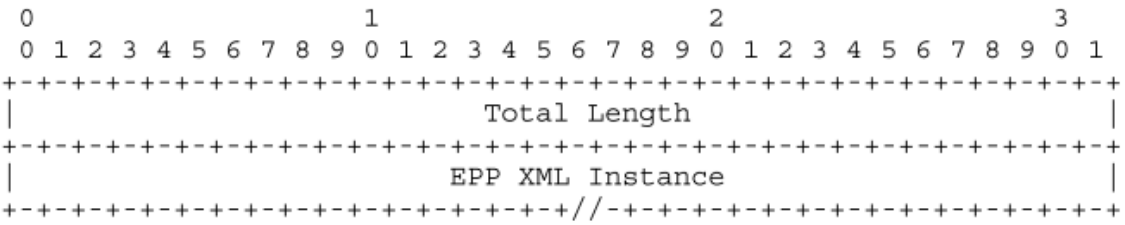


1.2.4. EPP Data Unit Format

- EPP Data Unit contain 2 fields:
  - 32 bit header that decribes the total length of the data unit

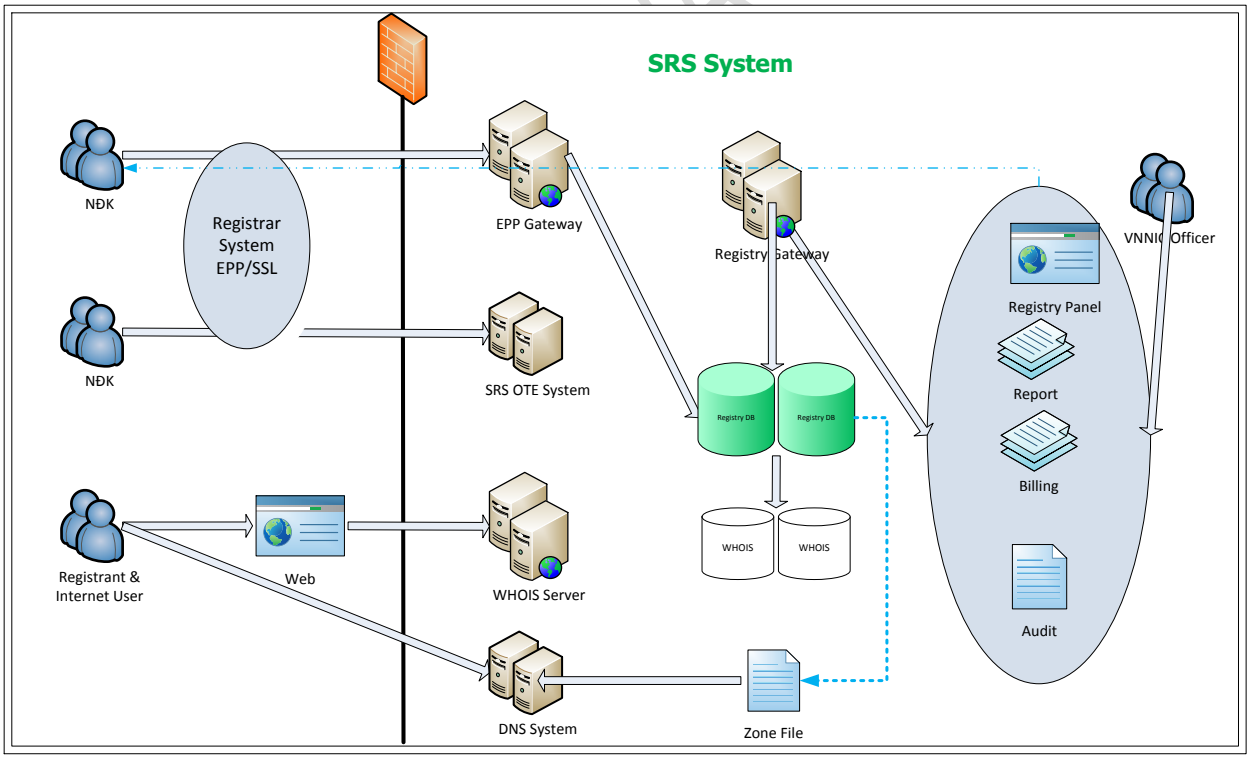
- the EPP XML instance.

- 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



1.2.5. An EPP System

This figure show VNNIC EPP System Model



1.3. EPP mapping in domain management

1.3.1. RFCs

The first EPP RFCs were published in March 2004, updated in 2007 and lastest 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)

1.3.2. EPP Commands

- Session Management
- Query
- Transformation

1.3.3. EPP Object

- Domain
- Contact
- Host

EPP Commands and Objects mapping

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

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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**	√

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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 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<=N<=50
Authoration Code	<domain:authoInfo> <domain:pw> </domain:authoInfo>	- 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:hostAddr ip="v4/v6"> </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	<domain:clID>	- Registrar account created by VNNIC

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Account		
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
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
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 5 and 500 characters long
Organization Name	<contact:org>	- String, - Should be between 5 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
Country	<contact:cc>	- String, - Should be Country Code standard

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Phone	<contact:voice>	- +CC-XXXXX - One phone number only
Fax	<contact:fax>	- +CC-XXXXX - One fax number only
Email	<contact:email>	- Refer to email asdress 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
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

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2.1.3. Result Code

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

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
    - Limitation on number of conncurrent session from a client : MaxSessionPerClient
    - Limitation on number of conncurrent session from an account : MaxSessionPerAccount
    - Limitation on number of commands in one session :
    - Idle time and max living time
        - MaxIdleTime = 10 minute
        - MaxLivingTime = 24h
    -
- 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 messae

```
<?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>2013-12-16T07:12:11.0791</svDate>
<svcMenu>
<version>1.0</version>
<lang>en</lang>
```

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```
<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	- Ussing incase client want to change the current password
EPP version	<options> <version>	Required	- Ussing 1.0

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	</ options>		
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	- Khai báo URI cho các EPP mở rộng đó.
Client Transaction ID	<clTRID>	Option	

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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 sesion 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 language	2001	
3	Invalid username /password	2200	
4	Invalid username /password counts over limitation	2501	
5	Over max session limitation	2502	

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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

- 3 days after expiration, domain name still active.
- In pendingDelete status, domain name does not active in DNS, domain name still belong to the registrant
- Do not using “pendingCreate” status
- A domain will have a <clientTransferProhibited> status as default status after created.
- Period for renew : by year: 1-50
- Domain & Nameserver information
    - One domain name have 2-13 nameservers
    - If the nameservers is a subdomain of the domain name, at least one IP address (Ipv4 or Ipv6) is required
- Domain & Contact information
    - One registrant, one contact for admin, one for technical and one for billing contact is required
    - 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 deposite is higher than Registrar Deposite Limitation

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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>tenmien2014010701.vn</domain:name>
                  <domain:name>tenmien2014010702.vn</domain:name>
                  <domain:name>tenmien2014010703.vn</domain:name>
                  <domain:name>tenmiendadao.vn</domain:name>
            </domain:check>
      </check>
<clTRID>NDK1-DOMAIN-CHECK-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">tenmien2014010701.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">tenmien2014010702.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">tenmien2014010703.vn</domain:name>
</domain:cd>
```

```
<domain:cd>
<domain:name avail="0">tenmiendadao.vn</domain:name>
<domain:reason xmlns:domain="urn:ietf:params:xml:ns:epp-1.0">Contain
forbidden word: dadao.</domain:reason>
</domain:cd>
</domain:chkData>
</resData>
<trID>
<clTRID>NDK1-DOMAIN-CHECK-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1389082314733</svTRID>
</trID>
</response>
</epp>
```

2.3.2.4. Result code

N0	Reason	Code	Note
1	Input parameters	2005	

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	

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Authorization information	<domain:authoInfo> </domain:pw> </domain:authoInfo>	Option	

2.3.3.3. Example command

Request command with <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
                xmln domain="urn:ietf:param xml:n domain-1.0"
xsi:schemaLocation="urn:ietf:param xml:n domain-1.0 domain-1.0.xsd">
                <domain:name>tenmien2014010702.vn</domain:name>
                <domain:authInfo>
                    <domain:pw>12345678</domain:pw>
                </domain:authInfo>
            </domain:info>
        </info>
        <clTRID>NDK1-DOMAIN-INFO-123456</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
                xmln domain="urn:ietf:param xml:n domain-1.0"
xsi:schemaLocation="urn:ietf:param xml:n domain-1.0 domain-1.0.xsd">
                <domain:name>tenmien2014010702.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>tenmien2014010702.vn</domain:name>
<domain:roid>DOMAIN-307</domain:roid>
<domain:status s="ok"/>
<domain:status s="clientTransferProhibited"/>
<domain:registrant>NDK1-OCONTACT-1</domain:registrant>
<domain:contact type="admin">NDK1-CONTACT-1</domain:contact>
<domain:contact type="tech">NDK1-CONTACT-1</domain:contact>
<domain:contact type="billing">NDK1-CONTACT-1</domain:contact>
<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:clID>ndk1_epp</domain:clID>
<domain:crID>ndk1_epp</domain:crID>
<domain:crDate>2014-01-07T08:06:38.0488</domain:crDate>
<domain:exDate>2015-01-06T17:00:00.0000</domain:exDate>
<domain:authInfo>
<domain:pw>12345678</domain:pw>
</domain:authInfo>
</domain:infData>
</resData>
<trID>
<clTRID>NDK1-DOMAIN-INFO-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1395283835269</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>tenmien2014010702.vn</domain:name>
<domain:roid>DOMAIN-307</domain:roid>
<domain:status s="ok"/>
<domain:status s="clientTransferProhibited"/>
<domain:registrant>NDK1-OCONTACT-1</domain:registrant>
<domain:contact type="admin">NDK1-CONTACT-1</domain:contact>
<domain:contact type="tech">NDK1-CONTACT-1</domain:contact>
<domain:contact type="billing">NDK1-CONTACT-1</domain:contact>
<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:clID>ndk1_epp</domain:clID>
<domain:crID>ndk1_epp</domain:crID>
<domain:crDate>2014-01-07T08:06:38.0488</domain:crDate>
<domain:exDate>2015-01-06T17:00:00.0000</domain:exDate>
<domain:authInfo>
<domain:pw>12345678</domain:pw>
</domain:authInfo>
</domain:infData>
</resData>
<trID>
<clTRID>NDK1-DOMAIN-INFO-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1395283607171</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>tenmien2014010702.vn</domain:name>
<domain:roid>DOMAIN-307</domain:roid>
<domain:status s="ok"/>
<domain:status s="clientTransferProhibited"/>
<domain:registrant>NDK1-OCONTACT-1</domain:registrant>
<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:clID>ndk1_epp</domain:clID>
<domain:crDate>2014-01-07T08:06:38.0488</domain:crDate>
<domain:exDate>2015-01-06T17:00:00.0000</domain:exDate>
</domain:infData>
</resData>
<trID>
<clTRID>NDK1-DOMAIN-INFO-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1395283610030</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	

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:authoInfo> </domain:pw> </domain:authoInfo>	Required	
Name Servers	<domain:ns>	Required	

VNNIC EPP GATEWAY SPEC

	</domain:hostAttr> </domain:ns>		
Registrant	<domain:registrant>	Required	
Admin contact	<domain:contact type=”admin”>	Required	
Technical contact	<domain:contact type=”tech”>	Required	
Billing contact	<domain:contact type=”billing”>	Required	

2.3.4.2. 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>
<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>tenmien2014010702.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>NDK1-OCONTACT-1</domain:registrant>
                  <domain:contact type="admin">NDK1-CONTACT-
1</domain:contact>
                  <domain:contact type="tech">NDK1-CONTACT-1</domain:contact>
                  <domain:contact type="billing">NDK1-CONTACT-
1</domain:contact>
            <domain:authInfo>
                  <domain:pw>12345678</domain:pw>
            </domain:authInfo>
      </domain:create>
</create>
<clTRID>NDK1-DOMAIN-CREATE-123456</clTRID>
</command>
</epp>
```

2.3.4.3. Response message

Example <create> 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>
<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>tenmien2014010702.vn</domain:name>
<domain:crDate>2014-01-07T08:06:38.0798</domain:crDate>
<domain:exDate>2015-01-07T08:06:38.0798</domain:exDate>
</domain:creData>
</resData>
<trID>
<clTRID>NDK1-DOMAIN-CREATE-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1389081999044</svTRID>
</trID>
</response>
</epp>
```

2.3.4.4. Response codes

N0	Reason	Code	Note
1	Input parameters	2005	
2	Domainname in list of subdomain level 2 ccTLD	2308	
3	Domainname in list of Reserved List or Prohibited List	2308	
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	

VNNIC EPP GATEWA

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:authoInfo> </domain:pw> </domain:authoInfo>	Required	
Name Servers	<domain:ns> </domain:hostAttr> </domain:ns>	Option	
Registrant	<domain:registrant>	Option	
Admin contact	<domain:contact type=”admin”>	Option	
Technical contact	<domain:contact type=”tech”>	Option	
Billing contact	<domain:contact type=”billing”>	Option	
Status	<domain:status s="clientHold"/>	Option	
Status	<domain:status s="clientRenewProhibited"/>	Option	
Status	<domain:status s="clientTransferProhibited"/>	Option	
Status	<domain:status s="clientDeleteProhibited"/>	Option	
Status	<domain:status s="clientUpdateProhibited"/>	Option	

2.3.5.2. 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>
        <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>tenmien2014010702.vn</domain:name>
                <domain:add>
```

VNNIC EPP GATEWAY SPEC DRAFT

```
                    <domain:ns>
                       <domain:hostAttr>
                              <domain:hostName>ns1.abc.net
                              </domain:hostName>
                       </domain:hostAttr>
                    </domain:ns>
                    <domain:status s="clientHold">Hết hạn</domain:status>
                </domain:add>
                <domain:rem>
                    <domain:ns>
                       <domain:hostAttr>
                              <domain:hostName>ns2.abc.net
                              </domain:hostName>
                       </domain:hostAttr>
                    </domain:ns>
                    <domain:status s="clientDeleteProhibited"/>
                </domain:rem>
                <domain:chg>
                    <domain:registrant>84008023_7B48149654A50C19B2A5302
                    </domain:registrant>
                    <domain:authInfo>
                        <domain:pw>2fooBAR</domain:pw>
                    </domain:authInfo>
                </domain:chg>
            </domain:update>
        </update>
        <clTRID>NDK1-DOMAIN-UPDATE-123456</clTRID>
    </command>
</epp>
```

2.3.5.3. Response message

- Response message example

```
<?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="1000">
            <msg>Command completed successfully</msg>
        </result>
        <trID>
            <clTRID>NDK1-DOMAIN-UPDATE-123456</clTRID>
            <svTRID>VNNIC_203.119.8.161_1389081999054</svTRID>
        </trID>
    </response>
</epp>
```

2.3.5.4. Response codes

N0	Reason	Code	Note

1	Input parameters	2005	
2	Authorization error	2201	
3	Prohibited status	2304	
4	Object 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>tenmien2014010702.vn</domain:name>
                  <domain:curExpDate>2015-01-07</domain:curExpDate>
                  <domain:period unit="y">1</domain:period>
            </domain:renew>
      </renew>
      <clTRID>NDK1-DOMAIN-RENEW-123456</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">
```

GATEWAY SPEC DRAFT

```
<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>tenmien2014010702.vn</domain:name>
<domain:exDate>2016-01-06T17:00:00.0000</domain:exDate>
</domain:renData>
</resData>
<trID>
<clTRID>NDK1-DOMAIN-RENEW-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1395284310749</svTRID>
</trID>
</response>
</epp>
```

2.3.6.4. Response codes

N0	Reason	Code	Note
1	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:tranfer> command : request, approve, reject, query.

Limitation for transfer request:

- T1 days after created
- T2 days before expired

VNNIC EPP GATEWAY SPEC

- Input parameters:
  - Domain Name
  - period (optional , default =1 years)
  - 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:authoInfo> </domain:pw> </domain:authoInfo>	Required	
Period	<domain:period>	Required	

- Op=”query”

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

- Op = “approve”

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

- Op = “reject”

Parameter	EPP attribute	Requirement	Note

VNNIC EPP GATEWAY SPEC DRAFT

Domain Name	<domain:name>	Required	
Reason	<domain:reason>	Required	

- Op = “cancel”

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

2.3.7.2. Example command

- Transfer request

```
<?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>
        <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>tenmien2014010702.vn</domain:name>
                <domain:period>2</domain:period>
                <domain:authInfo>
                    <domain:pw>12345678</domain:pw>
                </domain:authInfo>
            </domain:transfer>
        </transfer>
        <clTRID>NDK2-DOMAIN-TRANSFER-REQUEST-123456</clTRID>
    </command>
</epp>
```

- Transfer query

```
<?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>
        <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>tenmien2014010702.vn</domain:name>
                <domain:authInfo>
```

SPEC DRAFT

```
                    <domain:pw>12345678</domain:pw>
                <domain:authInfo>
            </domain:transfer>
        </transfer>
        <clTRID>NDK2-DOMAIN-TRANSFER-QUERY-123456</clTRID>
    </command>
</epp>
```

- Transfer approve

```
<?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>
        <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>tenmien2014010702.vn</domain:name>
                <domain:reason>Accept</domain:reason>
            </domain:transfer>
        </transfer>
        <clTRID>NDK1-DOMAIN-TRANSFER-APPROVE-123456</clTRID>
    </command>
</epp>
```

- Transfer reject

```
<?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>
        <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>tenmien2014010702.vn</domain:name>
                <domain:reason>Reject</domain:reason>
            </domain:transfer>
        </transfer>
        <clTRID>NDK1-DOMAIN-TRANSFER-REJECT-123456</clTRID>
    </command>
</epp>
```

- Transfer cancel

```
<?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>
        <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>tenmien2014010702.vn</domain:name>
```

```
                <domain:reason>cancel</domain:reason>
            </domain:transfer>
        </transfer>
        <clTRID>NDK2-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"?>
<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>tenmien2014010702.vn</domain:name>
                <domain:trStatus>pending</domain:trStatus>
                <domain:reID>ndk2_epp</domain:reID>
                <domain:reDate>2014-03-11T04:29:08.0006</domain:reDate>
                <domain:acID>ndk1_epp</domain:acID>
                <domain:acDate>2014-03-16T04:29:08.0006</domain:acDate>
                <domain:exDate>2016-01-07T17:00:00.0000</domain:exDate>
            </domain:trnData>
        </resData>
        <trID>
            <clTRID>NDK2-DOMAIN-TRANSFER-REQUEST-123456</clTRID>
            <svTRID>VNNIC_203.119.8.161_1395284310749</svTRID>
        </trID>
    </response>
</epp>
```

b. Transfer query

- Response message example

```
<?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="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>tenmien2014010702.vn</domain:name>
            <domain:trStatus>pending</domain:trStatus>
            <domain:reID>ndk2_epp</domain:reID>
            <domain:reDate>2014-03-11T04:29:08.0006</domain:reDate>
            <domain:acID>ndk1-epp</domain:acID>
            <domain:exDate>2016-01-07T17:00:00.0000</domain:exDate>
         </domain:trnData>
      </resData>
      <trID>
         <clTRID>NDK2-DOMAIN-TRANSFER-QUERY-123456</clTRID>
         <svTRID>VNNIC_203.119.8.161_1394512724689</svTRID>
      </trID>
 </response>
</epp>
```

c. Transfer approve

- Response message example

```
<?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="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>tenmien2014010702.vn</domain:name>
    <domain:trStatus>clientApproved</domain:trStatus>
    <domain:reID>ndk2_epp</domain:reID>
    <domain:reDate>2014-03-11T07:04:08.0413</domain:reDate>
    <domain:acID>ndk1_epp</domain:acID>
    <domain:exDate>2017-01-07T17:00:00.0000</domain:exDate>
   </domain:trnData>
  </resData>
  <trID>
   <clTRID>NDK1-DOMAIN-TRANSFER-APPROVE-123456</clTRID>
   <svTRID>VNNIC_203.119.8.161_1394521714639</svTRID>
  </trID>
 </response>
</epp>
```

d. Transfer reject

- Response message example

```
<?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="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>tenmien2014010702.vn</domain:name>
    <domain:trStatus>clientRejected</domain:trStatus>
    <domain:reID>ndk2_epp</domain:reID>
    <domain:reDate>2014-03-11T06:59:26.0515</domain:reDate>
    <domain:acID>ndk1_epp</domain:acID>
    <domain:acDate>2014-03-11T07:02:37.0455</domain:acDate>
    <domain:exDate>2016-01-07T17:00:00.0000</domain:exDate>
   </domain:trnData>
  </resData>
  <trID>
   <clTRID>NDK1-DOMAIN-TRANSFER-REJECT-123456</clTRID>
   <svTRID>VNNIC_203.119.8.161_1394521358426</svTRID>
  </trID>
 </response>
</epp>
```

e. Transfer cancel

- Response message example

```
<?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="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>tenmien2014010702.vn</domain:name>
    <domain:trStatus>clientCancelled</domain:trStatus>
    <domain:reID>ndk2_epp</domain:reID>
    <domain:reDate>2014-03-11T04:29:08.0006</domain:reDate>
    <domain:acID>ndk2_epp</domain:acID>
    <domain:acDate>2014-03-11T06:43:18.0864</domain:acDate>
    <domain:exDate>2016-01-07T17:00:00.0000</domain:exDate>
   </domain:trnData>
  </resData>
  <trID>
   <clTRID>NDK2-DOMAIN-TRANSFER-CANCEL-123456</clTRID>
   <svTRID>VNNIC_203.119.8.161_1394521358426</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	2300	
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"?>
<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>tenmien2014010702.vn</domain:name>
            </domain:delete>
        </delete>
        <clTRID>NDK2-DOMAIN-TRANSFER-CANCEL-123456</clTRID>
    </command>
</epp>
```

2.3.8.3. Response message

- Response message example

VNNIC EPP GATEWAY SPEC DRAFT

```
<?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="1000">
            <msg>Command completed successfully</msg>
        </result>
        <trID>
            <clTRID>NDK2-DOMAIN-TRANSFER-CANCEL-123456</clTRID>
            <svTRID>VNNIC_203.119.8.161_1394524732815</svTRID>
        </trID>
    </response>
</epp>
```

2.3.8.4. Response codes

N0	Reason	Code	Note
1	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 oranization

```
      <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:extInfo>
```

VNNIC EPP GATEWAY SPEC DRA

```
            </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	

VNNIC EPP GATEWAY SPE

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>vnnic0000-0001</contact:id>
</contact:check>
</check>
<clTRID>NDK1-CONTACT-CHECK-123456</clTRID>
</command>
</epp>
```

2.4.2.3. Response message

- Object does not exist.

```
<?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">vnnic0000-0001</contact:id>
</contact:cd>
<contact:cd>
</contact:chkData>
</resData>
<trID>
<clTRID>NDK1-CONTACT-CHECK-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1394503434203</svTRID>
</trID>
</response>
</epp>
```

- Object exist.

```
<?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="1" xmlns:contact="urn:ietf:params:xml:ns:epp-
1.0">vnnic0000-0001</contact:id>
</contact:cd>
<contact:cd>
</contact:chkData>
</resData>
<trID>
<clTRID>NDK1-CONTACT-CHECK-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1394503434203</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	

VNNIC EPP GATEWAY

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>vnnic0000-0001</contact:id>
      <contact:authInfo>
            <contact:pw>12345678</contact:pw>
      </contact:authInfo>
 </contact:info>
</info>
<clTRID>NDK1-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>vnnic0000-0001</contact:id>
 </contact:info>
</info>
<clTRID>NDK1-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>vnnic0000-0001</contact:id>
<contact:roid>CONTACT-780</contact:roid>
<contact:postalInfo type="int">
```

```
<contact:name>Trung TÃ¢m Internet Viá»‡t Nam</contact:name>
</contact:postalInfo>
<contact:clID>netnam_epp</contact:clID>
</contact:infData>
</resData>
<trID>
<clTRID>ABC-12345</clTRID>
<svTRID>VNNIC_203.119.8.161_1395287295933</svTRID>
</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>vnnic0000-0002</contact:id>
<contact:roid>CONTACT-779</contact:roid>
<contact:status s="ok"/>
<contact:postalInfo type="int">
<contact:name>Nguyễn Văn A</contact:name>
<contact:org>Công ty ABC</contact:org>
<contact:addr>
<contact:street>Dương Đình Nghệ</contact:street>
<contact:city>Hà Nội</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>info@vnnic.vn</contact:email>
<contact:clID>netnam_epp</contact:clID>
<contact:crID>netnam_epp</contact:crID>
<contact:crDate>2014-03-11T01:24:23.0565</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:extInfo>
</vncontact:infData>
</extension>
<trID>
<clTRID>NDK1-CONTACT-INFO-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1394503733738</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>vnnic0000-0002</contact:id>
<contact:roid>CONTACT-779</contact:roid>
<contact:status s="ok"/>
<contact:postalInfo type="int">
<contact:name>Nguyễn Văn A</contact:name>
<contact:org>Công ty ABC</contact:org>
<contact:addr>
<contact:street>Dương Đình Nghệ</contact:street>
<contact:city>Hà Nội</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>info@vnnic.vn</contact:email>
<contact:clID>netnam_epp</contact:clID>
<contact:crID>netnam_epp</contact:crID>
<contact:crDate>2014-03-11T01:24:23.0565</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>Nam</vncontact:gender>
<vncontact:birthDate>1985-04-19</vncontact:birthDate>
<vncontact:position>Chuyên viên</vncontact:position>
</vncontact:extInfo>
</vncontact:infData>
</extension>
<trID>
<clTRID>NDK1-CONTACT-INFO-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1394503733738</svTRID>
</trID>
</response>
</epp>
```

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>vnnic0000-0002</contact:id>
<contact:roid>CONTACT-779</contact:roid>
<contact:status s="ok"/>
<contact:postalInfo type="int">
<contact:name>Nguyễn Văn A</contact:name>
<contact:org>Công ty ABC</contact:org>
<contact:addr>
<contact:street>Dương Đình Nghệ</contact:street>
<contact:city>Hà Nội</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>info@vnnic.vn</contact:email>
<contact:clID>netnam_epp</contact:clID>
<contact:crID>netnam_epp</contact:crID>
```

```
<contact:crDate>2014-03-11T01:24:23.0565</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:extInfo>
</vncontact:infData>
</extension>
<trID>
<clTRID>NDK1-CONTACT-INFO-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1394503733738</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>vnnic0000-0002</contact:id>
<contact:roid>CONTACT-779</contact:roid>
<contact:status s="ok"/>
<contact:postalInfo type="int">
<contact:name>Nguyễn Văn A</contact:name>
<contact:org>Công ty ABC</contact:org>
<contact:addr>
<contact:street>Dương Đình Nghệ</contact:street>
<contact:city>Hà Nội</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>info@vnnic.vn</contact:email>
<contact:clID>netnam_epp</contact:clID>
```

```
<contact:crID>netnam_epp</contact:crID>
<contact:crDate>2014-03-11T01:24:23.0565</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>Nam</vncontact:gender>
<vncontact:birthDate>1985-04-19</vncontact:birthDate>
<vncontact:position>Chuyên viên</vncontact:position>
</vncontact:extInfo>
</vncontact:infData>
</extension>
<trID>
<clTRID>NDK1-CONTACT-INFO-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1394503733738</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	

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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	
Iditification 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>vnnic0001-0002</contact:id>
            <contact:postalInfo type="int">
```

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```
                  <contact:name>Nguyễn Văn A</contact:name>
                  <contact:org>Công ty ABC</contact:org>
                  <contact:addr>
                        <contact:street>Dương Đình Nghệ</contact:street>
                        <contact:city>Hà Nội</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>info@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>Nam</vncontact:gender>
                  <vncontact:birthDate>1985-04-20</vncontact:birthDate>
                  <vncontact:position>Chuyên viên</vncontact:position>
            </vncontact:extInfo>
      </vncontact:create>
</extension>
<clTRID>NDK1-CONTACT-CREATE-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>vnnic0001-0001</contact:id>
            <contact:postalInfo type="int">
                  <contact:name>Trung Tâm Internet Việt Nam</contact:name>
                  <contact:org>Bộ Thông tin và Truyền Thông</contact:org>
                  <contact:addr>
                        <contact:street>18 Nguyễn Du</contact:street>
                        <contact:city>Hà Nội</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>info@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="org">
                  <vncontact:intTraName>VNNIC</vncontact:intTraName>
            </vncontact:extInfo>
      </vncontact:create>
</extension>
<clTRID>NDK1-CONTACT-CREATE-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>vnnic0001-0001</contact:id>
<contact:crDate>2014-03-11T01:40:13.0088</contact:crDate>
</contact:creData>
</resData>
<trID>
<clTRID>NDK1-CONTACT-CREATE-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1395287295933</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>vnnic0000-0002</contact:id>
                  <contact:add>
                        <contact:status s="clientUpdateProhibited"/>
                        <contact:status s="clientDeleteProhibited"/>
                  </contact:add>
                  <contact:chg>
                        <contact:postalInfo type="int">
                              <contact:addr>
                                    <contact:city>Hà Nội</contact:city>
                                    <contact:cc>VN</contact:cc>
                              </contact:addr>
                        </contact:postalInfo>
                  </contact:chg>
            </contact:update>
      </update>
      <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>VNNIC1</vncontact:intTraName>
            </vncontact:extInfo>
      </vncontact:create>
</extension>
      <clTRID>NDK1-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>vnnic0000-0002</contact:id>
```

```
                  <contact:add>
                        <contact:status s="clientUpdateProhibited"/>
                        <contact:status s="clientDeleteProhibited"/>
                  </contact:add>
                  <contact:chg>
                        <contact:postalInfo type="int">
                              <contact:addr>
                                    <contact:city>Hà Nội</contact:city>
                                    <contact:cc>VN</contact:cc>
                              </contact:addr>
                        </contact:postalInfo>
                  </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>Nam</vncontact:gender>
                        <vncontact:birthDate>1985-04-20</vncontact:birthDate>
                        <vncontact:position>Chuyên viên</vncontact:position>
                  </vncontact:extInfo>
            </vncontact:update>
      </extension>
      <clTRID>NDK1-CONTACT-UPDATE-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>
<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>vnnic0000-0004</contact:id>
<contact:crDate>2014-03-11T01:40:13.0088</contact:crDate>
</contact:creData>
</resData>
<trID>
<clTRID>NDK1-CONTACT-UPDATE-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1394502013088</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>vnnic0000-0006</contact:id>
            </contact:delete>
      </delete>
      <clTRID>NDK1-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>NDK1-CONTACT-DELETE-123456</clTRID>
<svTRID>VNNIC_203.119.8.161_1394506842930</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 = MaximumMessagePoll)

- Have limitation on Message Life Time count by days (t < L = 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">
      <command>
            <poll op="req"/>
            <clTRID>NDK1-POLL-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">
     <response>
       <result code="1301">
         <msg>Command completed successfully; ack to dequeue</msg>
       </result>
       <msgQ count="0" >
         <msg>Empty queue.</msg>
       </msgQ>
       <trID>
         <clTRID>ABC-12345</clTRID>
         <svTRID>54321-XYZ</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">
     <response>
       <result code="1301">
         <msg>Command completed successfully; ack to dequeue</msg>
       </result>
       <msgQ count="5" id="12345">
         <qDate>2000-06-08T22:00:00.0Z</qDate>
         <msg>Transfer requested.</msg>
       </msgQ>
       <resData>
         <obj:trnData
          xmlns:obj="urn:ietf:params:xml:ns:obj-1.0">
           <obj:name>example.com</obj:name>
           <obj:trStatus>pending</obj:trStatus>
```

```
            <obj:reID>ClientX</obj:reID>
            <obj:reDate>08/06/2000 22:00:00</obj:reDate>
            <obj:acID>ClientY</obj:acID>
            <obj:acDate>13/06/2000 10:05:34</obj:acDate>
            <obj:exDate>08/09/2002 00:00:00</obj:exDate>
          </obj:trnData>
        </resData>
        <trID>
          <clTRID>ABC-12345</clTRID>
          <svTRID>54321-XYZ</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">
      <command>
            <poll op="ack" msgID="12345"/>
            <clTRID>ABC-12346</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">
      <response>
            <result code="1000">
                  <msg>Command completed successfully</msg>
            </result>
            <msgQ count="4" id="12345"/>
            <trID>
                  <clTRID>ABC-12346</clTRID>
                  <svTRID>54322-XYZ</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>
```

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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>
```

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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 conmand 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	<domain:check>	Optional
2	Get domain name current informations	<domain:info>	Optional
3	Update new name server	<domain:update>	Required

3.5. Holding a domain name

3.5.1. 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

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3.5.2. Example

Example command

```
<?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

Example command

```
<?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. Withdraw/ Delete 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 status (not in delete Prohibited or Transfer status)	<domain:info>	Optional
3.	Delete domain object	<domain:delete>	Required

3.8. Transfer a domain name

3.8.1. 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

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>
```

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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

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