.be

Registration Guidelines

for .be

Part II:
EPP-XML

6 december 2018

.be

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PART II: EPP-XML

Introduction

DNS Belgium has implemented an XML based interface to allow registrars to create software that can work interactively with the registration system.

EPP is a protocol for registering and managing domain names (and not necessarily only domain names) in a very generic way. Each registry has its own way of working, which means that some features will apply while others will have a slightly different implementation. That's why the designers of EPP have made it 'extensible' from the very beginning.

Due to some fundamental differences in the conceptual model and due to differences in the data format of some fields, a few compromises have been made.

This section describes the different transactions that you need to set up to work with the XML interface. For each possible command, we will briefly look at the EPP protocol and relate it to the DNS Belgium situation. As you will discover, there are some differences that need to be taken care of. We tried to keep as close to the standard as possible, but certain policy decisions for the .be domain space simply do not fit within the EPP framework.

XML schema are a means of exactly describing the possible content of an XML document. As such, we refer to the schema definitions that describe EPP's syntax.

When working with XML, you are expected to send a valid command. That's why you should validate your command against the schemas that are provided. As we cannot enforce you to do it, the DNS Belgium EPP interface will do a validation as the first step of the handling of the XML command, using a validating XML parser.

Invalid commands will generate an error message from the validation tool back to the sender. It is obvious that this will generate unnecessary load on the server and will therefore deteriorate the performance of the system.

DNS Belgium does not provide any client software. It is the responsibility of the registrar to create its own interface to communicate with the registration application.

USERID AND PASSWORD

To access the EPP interface, you need to use a user ID and password. The user ID is the registrar ID that you have been attributed upon registration as a registrar. The password is the one that you have chosen when you activated your account. It is possible to change your EPP password on the Registrar Site under 'My registrations'. You will have to log in with the administrator account (registrar ID = user ID).

IP WHITELISTING

Before connecting to the EPP interface, DNS Belgium needs to know from which IP addresses you will be connecting. You can register your IP addresses via 'My registrations'. More information on how to do this can be found in Part III of these Registration Guidelines.

ABOUT EPP AND THE CURRENT .BE SYSTEM

The schemas describe ALL VALID commands (as far as the protocol is concerned). The Extensible Provisioning Protocol tries to be generic enough, to accommodate for most situations with TLDs that have different procedures. Furthermore, EPP allows for extending the protocol (and these can be mandatory). Consequently, a command that is valid in one environment might be invalid in another.

As already mentioned, EPP has some fundamental incompatibilities with the DNS Belgium system. DNS Belgium opted to adapt the schema (through extensions and redefinitions) that reduce diverging from the 'standard' to the minimum. Also note that there are 2 levels of limitations: one imposed by the EPP schema (we use the standard schema as much as we can and only change it when needed) and one imposed by the policy or technical implementation.

Conceptual differences

The current version of the EPP schemas are based on some prerequisites or leave some possibilities open that are incompatible with the DNS Belgium implementation of the registration information. In the following list, we will discuss the conceptual differences between the two models. In most cases each of these differences will require some modification to the standard.

- DNS Belgium: a contact has a type BY DEFINITION and can only be used in that role. If the same person has 2 roles (e.g. a billing contact and a registrar technical contact) then it has to be defined twice.
  EPP: defines a contact without a type. It derives its type from its usage. The same contact object can be used in different roles.

- DNS Belgium: a contact object belongs to a registrar and cannot be transferred to another registrar (registrar).
  EPP: a contact is generic, and control can be passed on to another registrar.

- DNS Belgium: a name server is not an independent object, it is an attribute of the domain and comes into existence when it is linked to a domain. When it belongs to the same domain as the one it is linked to, it must be provided with an IP address (a 'glue record').
  EPP: two ways of working are possible:
- name servers are objects in their own right. If they need glue records (IP addresses), they must be created before they can be linked to a domain.
- Name servers are just 'attributes' of domain name registration. This corresponds to the way DNS Belgium works.

- DNS Belgium: has objects called name server groups, which are sets of name servers.
  EPP: this type is unknown to EPP
- DNS Belgium: has objects called keygroups, which are sets of DNSSEC keys.
  EPP: this type is unknown to EPP

Data differences

The following tables will give an idea of the data differences that exist between EPP and the DNS Belgium implementation. More detailed information can be found in the description of each command.

DOMAIN object			
	DNS Belgium	EPP	
Field	**Length**	**Length**	**Remarks**
domain	2-63	1-255	No change in schema but the back-end application returns an error when name is longer then 63. (1)
ns (hostName)	1-100	1-255	No change in the schema but software returns an error when shorter than 4 or longer than 100.
ns (hostAddr)	-	3-45	No change in the schema but the back-end checks if the IP address is valid. We support IPv4 and IPv6 addresses.
nsgroup	1-50	NA	
keygroup	1-50	NA	

(1) the standard protocol allows a name of max length 255. This is because some registries make registrations at the 3rd level and for different top-level domains. Because of this, it must be possible to enter a name longer than the allowed 63 characters.

CONTACT object			
	DNS Belgium	EPP	
Field	**length**	**length**	**Remarks**
name	50	1-255	EPP will return an error if the field is longer than 50 chars.
language	2 (nl,fr,en)	NA	defined as an extension
org	100	0-255	If the 'org' field is longer than 100 characters, an error is returned.
email	255	min 1	If the 'email' field is longer that 255 characters, an error is returned.
vat	20	NA	defined as an extension

Transactions

The following table shows EPP commands available in the DNS Belgium EPP interface.

EPP command	Remark
<create> contact	Create a contact
<update> contact	Update a contact
<delete> contact	Delete a contact
<info> contact	Get info on a contact
<create> nsgroup	Create a name server group
<update> nsgroup	Update a name server group
<delete> nsgroup	Delete a name server group
<check> nsgroup	Check a name server group
<info> nsgroup	Get info on a name server group
<create> keygroup	Create a keygroup
<update> keygroup	Update a keygroup
<delete> keygroup	Delete a keygroup
<check> keygroup	Check a keygroup
<create> domain	Create a domain name
<update> domain	Update a domain name
<delete> domain	Delete a domain name
<undelete> domain	remove a scheduled delete of a domain name
<requestAuthCode>	Request an authorisation code for a transfer
<transfer> domain	Transfer a domain to another registrar/registrant
<reactivate> domain	restore a domain name in the same situation as before it was put in quarantine.
<check> domain	Check a domain name
<info> domain	Get info on a domain name
<poll>	Check queued messages

Other EPP commands, that are not implemented in the DNS Belgium system:

EPP-command(s)	Remark
renew	NOT AVAILABLE; renewals are automatic at the end of each domain name year unless the domain name is removed from the database.
transfer approve	NOT IMPLEMENTED; the mechanism of the transfer of a domain name from one registrar to another requires the explicit approval of the registrant, which is requested via e-mail
transfer reject	NOT IMPLEMENTED; see previous item
transfer query	NOT IMPLEMENTED; see previous item

TRANSPORT AND SECURITY

EPP is intended for use in diverse operating environments where transport and security requirements vary greatly. However, DNS Belgium is providing EPP only on a Secure Layer (TLS) mechanism over standard TCP/IP sockets.

EPP security considerations are resolved by the transport layer and is beyond the scope of this document.

DNS Belgium uses EPP only in synchronous mode: a response to a command must be received by the client before sending another command (the EPP standard however, allows synchronous as well as asynchronous mode).

The EPP protocol can be layered over multiple transport protocols. DNS Belgium only provides a connection-oriented EPP service.

A connection-less mode can be simulated by sending a login/command/logout combination in one set; but this is resource intensive for both client and server and therefore discouraged. An EPP session requires the connection between two peers as described in RFC5734.

EPP SESSIONS

DNS Belgium guarantees at least 2 simultaneous EPP sessions (connections) per registrar with our EPP server. If our EPP server can handle more connections easily, then it might be possible that DNS

Belgium allows more than 2 simultaneous connections per registrar (maximum 5). So, the number of maximum simultaneous connections varies between 2 and 5.

As a registrar you can specify 10 IP addresses from which you are allowed to connect with our EPP server. Although you have 10 IP addresses, DNS Belgium might allow only 2 simultaneous connections. In other words, the number of IP addresses that you specify is not related in any way with the number of allowed connections.

Connections which are idle for more than 4 minutes will be closed down by our EPP server.

How does this connection limit work?

An example. DNS Belgium allows a maximum of 2 simultaneous EPP sessions. Suppose you have 2 simultaneous connections. When opening a third connection, you will be able to send and receive transactions on this connection. Trying the eldest connection will result in a 'Session limit exceeded' message and the connection will be closed on our side. In other words, you will always fall back to your 2 most recent connections.

The error message looks like:

```
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2502">
      <msg>Session limit exceeded; server closing connection</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>last session from X.X.X.X:XXX</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

If 2 sessions are enough for your registration system (and in normal situations that should be more than enough) then you don't need to take special measures in your software. But if you are sure you might need more connections, then you should make your software scalable so that you can adapt the number of connections depending on our (variable) maximum number of connections.

The tryout system is fixed to maximum 5 connections per registrar, the tryout system is there for functionality testing and not for high volume testing, so DNS Belgium doesn't see the need for more connections there.

VERSIONS & PORTS

The EPP standard protocol stipulates that the version field (as returned by the greeting and required by the login command) should be '1.0'.

The DNS Belgium implementation of the protocol slightly differs from the standard (for business policy related reasons). For this reason, the DNS Belgium implementation will not use the official system port (700) but it will use **33128**.

The actual server name and port can always be verified on our registrar website under the heading 'Services'.

EPP COMMANDS

EPP commands fall into three categories:

- session management: is used to establish and end persistent sessions with the EPP server.
- query: is used to perform read-only information retrieval.

- transform: is used to perform read-write transactional object management operations.

IDN

We accept both U-label and A-label as input for EPP. The EPP response will only use the A-label for IDN names, both in succeeded and in error messages. If you register a non-IDN name, the domain name is returned as before.

For name servers, we also accept both U-label and A-label. The EPP response will only use the A-label for IDN name servers.

More information about IDN, definitions and allowed characters for .be can be found in the general part of these Registration Guidelines.

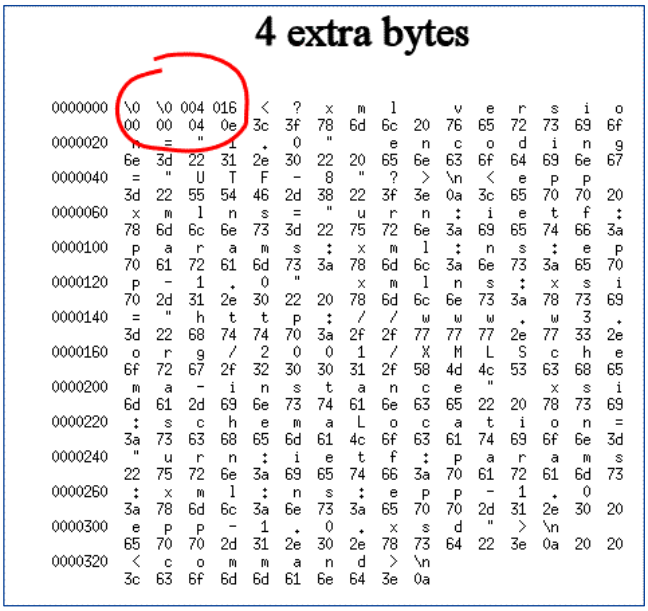
XML

XML is case sensitive. Unless stated otherwise, XML specifications and examples provided in this document must be interpreted in the character case presented.

An EPP data unit contains two fields: a 32-bit header describing the total length of the data unit, and the EPP XML instance. The header should be in network order (also known as BigEndian). The XML instance should use a supported character set (UTF-8, ASCII-7 or ISO-8859-1) and an XML version of 1.0. Please note that UTF-8 is the RECOMMENDED character encoding for use with EPP. All EPP commands are enclosed within an <epp> … </epp> block:

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

becomes as shown here in a hexdump:



In this dump it is assumed that the above EPP message is 1034 bytes long: 1034+4 = 1038 = 0x040e (HEX format).

The server will parse incoming XML messages on the socket by reading 4 bytes, and then by reading a block of the size indicated by the 4 bytes, subtracted by 4. This message is processed and the

response is sent back on the socket (also preceded by a 4 byte number in network order) before the next message will be processed.

Our implementation of the EPP XML server uses an XML schema specification parsing mechanism. A client who wants to design an EPP client implementation should obtain from DNS Belgium the EPP XML schema (.xsd files) used to validate all XML messages sent to the server for conformance with the DNS Belgium EPP implementation. These files can be found in the library on the registrar website.

All client XML EPP messages sent to the DNS Belgium EPP server should have been validated against the latest XML EPP schema provided by DNS Belgium prior to their use.

COMMAND FORMAT

Client EPP command

A generic EPP client command is formed as below (we will show client commands with a light blue background), without the preceding 4 bytes.

```
<?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>
    <someaction> ... </someaction>
    <extension>
     ...
    </extension>
    <clTRID>abc-59687456</clTRID>
   </command>
  </epp>
```

<command> Contains the whole EPP command block.

<someaction> (To be replaced by one of the allowed i.e. defined in the schema, commands: <login>, <check>...) defines the current action to perform. Actions are described in the following sections.

<extension> Defines a set of DNS Belgium specific extensions for each command. Some of them are mandatory.

<clTRID> (Client transaction identifier) uniquely identifies the command to the client. This ID is chosen by the client and needs to be unique only within client's scope. See the official EPP specification for constraints about this ID. The EPP server does not process or use this ID, it is only returned as-is to the client in the response.

Server EPP response

A generic EPP server response is formed as follows (we will show all server response documents on a light red background), without the preceding 4 bytes:

```
<?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>
      <value> ... </value>

  </result>
  <resData> ... </resData>
  <extension>
     ...
  </extension>
  <trID>
    <clTRID>abc-59687456</clTRID>
    <svTRID>dnsbe-232398</svTRID>
```

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

- **<response>** Contains the whole server response block.
- **<result>** Contains the result code, message and service-specific values for the command. See the section on error codes for more information on the result code value.
- **<msg>** Contains the EPP message text for the corresponding error code. There is a one to one mapping between error code and error messages.
- **<value>** Contains context-specific value for more informative reference, such as an XML parsing error column, line and message, specific transaction-processing error... See each specific command for more information on the content of the value field.
- **<resData>** Contains object-specific data related to the object and command in process, such as a newly created ID, information data...
- **<extension>** Contains DNS Belgium specific response extension.
- **<trID>** Is composed of 2 blocks defining together a unique transaction identifier.
- **<clTRID>** Is the clTRID of the client command processed.
- **<svTRID>** Is the server-unique ID of the command processed. Please note that only transform-type commands have a unique ID. All other commands have a server ID of dnsbe-0. The server ID is constructed by appending a unique numeric ID to the characters 'dnsbe-' (eg.: 'dnsbe-45235').

Object extension

EPP provides an extensible object management framework that defines the syntax and semantics of protocol operations applied to a managed object. This framework delegates the definition of each operation into the context of the specific object.

Protocol elements that contain data specific to objects are identified using XML namespaces with a reference to an XML schema that defines the namespace. The schema for EPP supports use of dynamic object schemas on a per-command and per-response basis. For example (replacing <eppcmd> by a specific EPP command):

```
<eppcmd>
  <object:eppcmd xmlns:object="urn:ietf:params:xml:ns:object-1.0"
     xsi:schemaLocation="urn:ietf:params:xml:ns:object-1.0 object-1.0.xsd">
       ...
  </object:eppcmd>
 </eppcmd>
```

An object-specific response element would be described similarly:

```
  <resData>
    <object:resData xmlns:object="urn:ietf:params:xml:ns:object-1.0"
       xsi:schemaLocation="urn:ietf:params:xml:ns:object-1.0 object-
1.0.xsd">
       ...
    </object:resData>
  </resData>
```

Instead of referring to a specific namespace at the object level, it is also possible to refer to that namespace at the highest level, making the command much more readable (from a human point of view).

To illustrate this, look at the next example. The first part shows the command with a namespace reference on the second <check> element.

```
<?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>
  <check>
    <domain:check 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>semaphore.be</domain:name>
      <domain:name>gloubiboulga.be</domain:name>
      <domain:name>secureshopping.be</domain:name>
```

```
    </domain:check>
  </check>
  <clTRID>abc-596856</clTRID>
</command>
</epp>
```

The second part shows the same command with the namespace definition on the <epp> element. This will make the namespace global instead of local within the element on which it was used. The advantage however is a much more readable 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"
       xmlns:epp="urn:ietf:params:xml:ns:epp-1.0"
       xmlns:eppcom="urn:ietf:params:xml:ns:eppcom-1.0"
       xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
       xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
       xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0"
       xmlns:nsgroup="http://www.dns.be/xml/epp/nsgroup-1.0"
       xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
                           urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd
                           urn:ietf:params:xml:ns:eppcom-1.0 eppcom-1.0.xsd
                           urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd
                           http://www.dns.be/xml/epp/dnsbe-1.0 dnsbe-1.0.xsd
                           http://www.dns.be/xml/epp/nsgroup-1.0 nsgroup-
1.0.xsd">
<command>
  <check>
    <domain:check>
      <domain:name>semaphore.be</domain:name>
      <domain:name>gloubiboulga.be</domain:name>
      <domain:name>secureshopping.be</domain:name>
    </domain:check>
  </check>
  <clTRID>abc-596856</clTRID>
</command>
</epp>
```

EPP objects used within DNS Belgium are:

epp:
  namespace: urn:ietf:params:xml:ns:epp-1.0
  schema: epp-1.0.xsd
  (generic document, containing the root element:<epp>)

eppcom:
  namespace: urn:ietf:params:xml:ns:eppcom-1.0
  schema: eppcom-1.0.xsd
  (generic data definitions)

domain:
  namespace: urn:ietf:params:xml:ns:domain-1.0
  schema: domain-1.0.xsd
  (domain specific commands)

contact:
  namespace: urn:ietf:params:xml:ns:contact-1.0
  schema: contact-1.0.xsd
  (contact specific commands)

host:
  namespace: urn:ietf:params:xml:ns:host-1.0
  schema: host-1.0.xsd
  (nameserver specific definitions)

nsgroup:
  namespace: http://www.dns.be/xml/epp/nsgroup-1.0

schema: nsgroup-1.0.xsd
(added to handle nameserver groups)

key:
namespace: urn:ietf:params:xml:ns:secDNS-1.1
schema: secDNS-1.1.xsd
(key specific definitions)

keygroup:
namespace: http://www.dns.be/xml/epp/keygroup-1.0
schema: keygroup-1.0.xsd
(added to handle keyroups)

registrar:
namespace: http://www.dns.be/xml/epp/registrar-1.0
schema: registrar-1.0.xsd
(added to handle registrar info)

All DNS Belgium specific modifications to the standard schemas are marked by 'START/END MODIF DNS BE' markers.

All DNS Belgium specific extensions to EPP (<extension> block):

namespace: http://www.dns.be/xml/epp/dnsbe-1.0
schema: dnsbe-1.0.xsd

For a complete reference of the standard syntax, we refer to the internet RFC documents, that explain in detail the valid content of a document:

- RFC3730: Extensible Provisioning Protocol.
- RFC731: (EPP) Domain Name Mapping.
- RFC3732: (EPP) Host Mapping.
- RFC3733: (EPP) Contact Mapping.
- RFC3734: (EPP) Transport over TCP.
- RFC3735: Guidelines for Extending the Extensible Provisioning Protocol.
- RFC 5910: DNSSEC & EPP.

DNS Belgium ignores schema references in an XML command and validates the incoming command against a fixed set of schemas as listed above.

To support additional features required for the provisioning of DNS security extensions, the EPP server used by DNS Belgium is fully compliant with RFC-5910. For backwards compatibility RFC-5910 describes two possible interfaces through which a client can create, add, and remove Delegation Signer (DS) information or keydata information for a domain name.
The EPP server implemented by DNS Belgium only supports the newer "Key Data Interface".

DNS Belgium recommends following prefix for the namespaces:

Namespace	Namespace prefix
urn:ietf:params:xml:ns:epp-1.0	epp
urn:ietf:params:xml:ns:eppcom-1.0	eppcom
urn:ietf:params:xml:ns:contact-1.0	contact
urn:ietf:params:xml:ns:domain-1.0	domain
urn:ietf:params:xml:ns:host-1.0	host
urn:ietf:params:xml:ns:secDNS-1.1	secDNS
http://www.dns.be/xml/epp/nsgroup-1.0	nsgroup
http://www.dns.be/xml/epp/keygroup-1.0	keygroup
http://www.dns.be/xml/epp/dnsbe-1.0	dnsbe
http://www.dns.be/xml/epp/registrar-1.0	registrar

DESCRIPTION OF THE TRANSACTIONS

The following pages give an overview of the different XML commands that can be exchanged between the client and the server.

Per transaction, the elements and tags that are relevant for DNS Belgium are specified. Tags that are optional can be omitted without producing an XML parsing error. You will find an indication of the differences between the standard and the modifications that have been made to accommodate the .be specific context.

.be

HELLO / GREETING

PURPOSE: to obtain information from the EPP server that will handle your requests.

A client can request a <greeting> from the EPP server by sending a <hello> command at any time:

```
<?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>
```

The <hello> element does not contain anything. The server will also send a greeting upon establishment of the connection.

An EPP server responds to an <hello> command by returning a <greeting>:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <greeting>
    <svID>dns.be</svID>
    <svDate>2010-10-06T12:25:51.085Z</svDate>
    <svcMenu>
      <version>1.0</version>
      <lang>en</lang>
      <objURI>urn:ietf:params:xml:ns:contact-1.0</objURI>
      <objURI>urn:ietf:params:xml:ns:domain-1.0</objURI>
      <svcExtension>
        <extURI>http://www.dns.be/xml/epp/nsgroup-1.0</extURI>
        <extURI>http://www.dns.be/xml/epp/registrar-1.0</extURI>
        <extURI>http://www.dns.be/xml/epp/dnsbe-1.0</extURI>
        <extURI>urn:ietf:params:xml:ns:secDNS-1.1</extURI>
        <extURI>http://www.dns.be/xml/epp/keygroup-1.0</extURI>
      </svcExtension>
    </svcMenu>
    <dcp>
      <access>
        <all/>
      </access>
      <statement>
        <purpose>
          <admin/>
          <prov/>
        </purpose>
        <recipient>
          <ours/>
          <public/>
        </recipient>
        <retention>
          <stated/>
        </retention>
      </statement>
    </dcp>
  </greeting>
</epp>
```

- **<svID>** contains the name of the server (dns.be).
- **<svDate>** contains the server current date and time in UTC.
- **<svcMenu>** contains the services supported by the server.
- **<version>** contains the EPP version currently supported (1.0).
- **<lang>** contains the text response language currently supported, as defined in [RFC3066]. Only 'en' (english) is available.
- **<objURI>** contains the list of namespace URIs representing the objects that the server is capable of managing: contacts, domains.
- **<svcExtension>** <extURI> contains the list of namespace URIs used by the server: nsgroups, keygroups.
- The **<dcp>** element contains info related to privacy policies.

LOGIN

PURPOSE: is used to authenticate the client to the EPP server. It must be sent before any other command (except <hello>).

This command is used to establish the registrar credentials. The userid and EPP password will be used to authenticate the party that wants to set up the session.

The login command is composed according to the standard EPP syntax. Some components need further explanation:

- **<clID>** Contains the registrar ID of the connecting client.
- **<pw>** Contains the EPP password of the connecting client (registrar). This is the password that you have to provide when you activate your account at the start of your contract.
- **<newPW>** is not supported by DNS Belgium. If you want to change your password, you can do this on 'My registrations'.
- **<version>** Contains the EPP version the client support (1.0). This will be used for versioning (on EPP standard level) in the future.
- **<lang>** Contains the preferred language of the client for this connection (actually ignored by DNS Belgium). Both <version> and <lang> must match one of the server proposition(s).
- **<svcs>** Contains a list of <objURI> and <extURI> the client wants to use with the EPP server during this connection.
- **<clTRID>** Each transaction can be completed with a user provided transaction ID, that can be used to identify a transaction.

An EPP connection is kept open by the server between a <login> and a <logout> command from the client, using the same socket connection. The EPP connection is closed without logout if the client closes the socket. However, to ensure responsible behaviour a client should disconnect the socket only after the EPP <logout> command.

If you want to receive secDNS information in any of the responses to your transactions, you need to specify that extension in your login command at the <svcs> level. We recommend that you specify all <objURI> and <extURI> you want to use during your session.

Examples:

Minimal login:

```
<?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>
    <login>
      <clID>dns-as-agent</clID>
      <pw>mypassword</pw>
      <options>
        <version>0.9</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>
  </command>
</epp>
```

Full login (recommended):

```
<?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>dns-as-agent</clID>
  <pw>mypassword</pw>
  <options>
    <version>1.0</version>
    <lang>en</lang>
  </options>
  <svcs>
    <objURI>urn:ietf:params:xml:ns:contact-1.0</objURI>
    <objURI>urn:ietf:params:xml:ns:domain-1.0</objURI>
    <svcExtension>
     <extURI>http://www.dns.be/xml/epp/dnsbe-1.0</extURI>
     <extURI>http://www.dns.be/xml/epp/nsgroup-1.0</extURI>
     <extURI>http://www.dns.be/xml/epp/keygroup-1.0</extURI>
     <extURI>urn:ietf:params:xml:ns:secDNS-1.1</extURI>
    </svcExtension>
  </svcs>
</login>
<clTRID>clientref-00001</clTRID>
</command>
</epp>
```

The server responds to a <login> command with a result code of 1000 ("Command completed successfully") or 2200 ("Authentication error"):

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>login succeeded</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00001</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Remark:

As long as no <login> command has been processed successfully, the server will reply with error code 2202 to all commands except <hello>.

LOGOUT

PURPOSE: The EPP <logout> command is used to close a session with the EPP server.

The transport connection is closed by the server after the emission of the <logout> response. The <logout> does not take any other elements or attributes:

```
<?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>
```

The server responds with a result code of 1500 ("Command completed successfully; ending session"):

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1500">
      <msg>Command completed successfully; ending session</msg>
    </result>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

INFO REGISTRAR

PURPOSE: to obtain registrar account information.

This command gives the registrar the possibility to verify in an automated fashion:

- the account status.
- the 'hitpoint' counter.
- the moment when the registrar will be deblocked ('blocked until').

The registrar info command is composed according to the standard EPP syntax. Some components need further explanation:

- <**registrar version="1.0"/**> currently only version 1.0 is supported. It's not necessary to mention the version as it defaults to "1.0".

Example

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
 <command>
   <info>
     <registrar:info xmlns:registrar="http://www.dns.be/xml/epp/registrar-1.0"/>
   </info>
 <clTRID>info-registrar-112</clTRID>
 </command>
</epp>
```

In the response you see the hitpoint status and account status:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:registrar="http://www.dns.be/xml/epp/registrar-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <registrar:infData/>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:registrar>
            <dnsbe:amountAvailable>1013536.40</dnsbe:amountAvailable>
            <dnsbe:hitPoints>
              <dnsbe:nbrHitPoints>0</dnsbe:nbrHitPoints>
              <dnsbe:maxNbrHitPoints>100</dnsbe:maxNbrHitPoints>
            </dnsbe:hitPoints>
            <dnsbe:nbrPromoCreditsAvailable xsi:nil="true"/>
          </dnsbe:registrar>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>info-registrar-112</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

The following information can be seen in the reply:

- <**amountAvailable**> is the amount of money left in the registrar account which can be used to perform paying transactions on the registration system.
- <**hitPoints**> contains information about the hitpoints:

- <**nbrHitpPoints**> current number of hitpoints
- <**maxNbrHitPoints**> the maximum number of hitpoints allowed
- <**blockedUntil**> the date and time in UTC until when the account is blocked. This is only visible in case the registrar has exceeded its number of hitpoints
- **<dnsbe:nbrPromoCreditsAvailable>** contains the number of promo credits available if there are any.

CREATE CONTACT

PURPOSE: To create a contact (types: billing, tech, licensee or onsite contact).

All EPP contact objects are identified by a server unique identifier. The EPP contact create command allows the client to send a requested ID for the new contact, but this field is ignored (as allowed by EPP) by the server and a newly-created ID is returned instead in the server response.

Every contact has associated postal address information. DNS Belgium stores postal information in a less restrictive way, to accommodate for the many different formats in the world. The set of characters allowed for contact data are iso-8859-1 and iso-8859-15. It is the responsibility of the registrar to provide an address in a readable format.

Standard EPP does not enforce a specific role for each contact. It acquires its type from its usage. The same contact object can be used in different roles. DNS Belgium requires that you define a role for a contact upon its creation. A contact can only be used in the role it was created for: each link between a domain and a contact should follow that role. For example, you cannot link a contact of type 'tech' to a domain as a 'billing', you MUST use it as a 'tech'. If you want to use the same person for different roles, you will need to create a new contact for each of them. The roles that exist are described below.

The create contact command is composed according to the standard EPP syntax. Some components are changed by DNS Belgium and need further explanation:

- **<contact:id>** Mandatory according to the EPP standard, this field contains the (proposed) ID for the contact. It is ignored by DNS Belgium.
- **<contact:postalInfo>** this contains the address information of this contact ; the schema allows it to occur twice (e.g. with a local address or an international address) ; DNS Belgium only accepts type 'loc' with UTF-8 character set (containing non-ascii characters), the set of characters allowed are the characters from iso-8859-1 and iso-8859-15; if 'int' is specified as a type, this will be rejected as a policy error. Only 1 postalInfo block is accepted.
- **<contact:name>** is required. Contains the complete name of the contact to create.
  As the EPP standard has one field, you can put both the first and the last name in that field. It is good practice to decide on starting with the last name or the first name for every contact, as it can be confusing if firstname and lastname are switched. It should contain at least one non-whitespace character. If more than 50 characters are used in the lastname field, this will be rejected as a policy error.
- **<contact:org>** Contains the company name of the contact, if the <dnsbe:type> is 'licensee' or 'onsite', no <contact:org> is required. However if the <dnsbe:type> is 'tech' or 'billing' a <contact:org> is mandatory. If the field is longer than 100 characters, an error is returned.
- **<contact:street>** is required once. You can provide up to 3 instances of this element. It contains the postal street information of the contact. It should contain information in such a way that it looks like a correct address when printed on a letter as:
  COMPANY NAME
  (CONTACT) NAME
  STREET(1)
  STREET(2)
  STREET(3)
  PC CITY, SP
- **<contact:city>** is required. Contains the city of the contact.
- **<contact:sp>** is optional. Contains the state or province of the contact.
- **<contact:pc>** is required by DNS Belgium. Contains the postal code of the contact.
  This field can be up to 16 characters.
- **<contact:cc>** is required. Contains the two-letters country code (in uppercase) of the contact to create, as defined in [ISO3166]. The list that we support can be viewed on our registrar website under the topic 'Services'.
- **<contact:voice>** Is required by DNS Belgium. Contains the telephone number of the contact that is being created. A phone number is a string that must begin with a plus sign ('+'), followed by a country code, followed by a dot ('.'), followed by a sequence of digits representing the telephone number. An optional 'x' attribute is provided to note telephone extension (but this attribute is ignored by DNS Belgium).

- **<contact:fax>** is optional. Contains the facsimile number of the contact. The syntax is the same as for telephone but without the extension attribute.
- **<contact:email>** is required. Email address syntax is defined in [RFC2822].
- **<contact:authInfo>** is required, but ignored by DNS Belgium.
- **<contact:pw>** Is not used by DNS Belgium. As it is a required element in the schema, it must be provided; however, you do not have to specify a value between the tags.
- **<contact:disclose>** is an additional (optional) element in the schema that contains postal information that can be disclosed. This is not used by DNS Belgium.
- DNS Belgium EXTENSIONS:
- <**dnsbe:type**> Contains the type of contact to create. Can be one of: 'billing', 'licensee', 'onsite', 'tech'. As the type is required, the <extension> element must always be present. For more details on the different 'contact types', see the general part of these Registration Guidelines. Note that type 'licensee' should be used for the registrant contact.
- <**dnsbe:vat**> Contains the VAT of the contact. This tag is optional.
- <**dnsbe:lang**> Contains the preferred language of the contact (only supported values are: en, fr, nl). Although optional in the schema the back-end will return an error if this element is omitted.

Please refer to the examples to see a complete request.

Examples:

Creating a new contact:

```
<epp xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd
http://www.dns.be/xml/epp/dnsbe-1.0 dnsbe-1.0.xsd"
xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <command>
    <create>
      <contact:create>
        <contact:id>you_choose_it</contact:id>
        <contact:postalInfo type="loc">
          <contact:name>Jonathan Smith</contact:name>
          <contact:org>Great Company Inc.</contact:org>
          <contact:addr>
            <contact:street>Greenstreet 23</contact:street>
            <contact:city>Brussels</contact:city>
            <contact:sp/>
            <contact:pc>1000</contact:pc>
            <contact:cc>BE</contact:cc>
          </contact:addr>
        </contact:postalInfo>
        <contact:voice>+32.16284970</contact:voice>
        <contact:fax>+32.16284971</contact:fax>
        <contact:email>j.smith@greatcompanyinc.cctld</contact:email>
        <contact:authInfo>
          <contact:pw>Polar Ice</contact:pw>
        </contact:authInfo>
      </contact:create>
    </create>
    <extension>
      <dnsbe:ext>
        <dnsbe:create>
          <dnsbe:contact>
            <dnsbe:type>licensee</dnsbe:type>
            <dnsbe:vat>BE 123 4576 5645</dnsbe:vat>
            <dnsbe:lang>nl</dnsbe:lang>
          </dnsbe:contact>
        </dnsbe:create>
      </dnsbe:ext>
    </extension>
    <clTRID>clientref-00002</clTRID>
  </command>
</epp>
```

In case of a successful object creation the EPP server responds with a message containing the newly created ID and the creation date in UTC time:

```
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:contact="urn:ietf:params:xml:ns:contact-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <contact:creData>
        <contact:id>c16</contact:id>
        <contact:crDate>2006-10-06T12:25:38.280Z</contact:crDate>
      </contact:creData>
    </resData>
    <trID>
      <clTRID>clientref-00002</clTRID>
      <svTRID>dnsbe-23</svTRID>
    </trID>
  </response>
</epp>
```

- **<contact:id>** Is the newly created ID assigned to this contact.
- **<contact:crDate>** Is the creation date in UTC format.
- **<clTRID>** This element copies the transaction ID that was specified by the registrar in the command. This way, it is possible to automatically interpret the answer and link it to the command that was sent.

An example containing a parsing error: When we remove the required <pw></pw> tags from the XML command (under the <authInfo> parent, we get an error message from the XML parser.

```
<epp xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd
http://www.dns.be/xml/epp/dnsbe-1.0 dnsbe-1.0.xsd"
xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <command>
    <create>
      <contact:create>
        <contact:id>you choose it</contact:id>
        <contact:postalInfo type="loc">
          <contact:name>Jonathan Smith</contact:name>
          <contact:org>Great Company Inc.</contact:org>
          <contact:addr>
            <contact:street>Greenstreet 23</contact:street>
            <contact:city>Brussels</contact:city>
            <contact:sp/>
            <contact:pc>1000</contact:pc>
            <contact:cc>BE</contact:cc>
          </contact:addr>
        </contact:postalInfo>
        <contact:voice>+32.16284970</contact:voice>
        <contact:fax>+32.16284971</contact:fax>
        <contact:email>j.smith@greatcompanyinc.cctld</contact:email>
        <contact:authInfo>
        </contact:authInfo>
      </contact:create>
    </create>
    <extension>
      <dnsbe:ext>
        <dnsbe:create>
          <dnsbe:contact>
            <dnsbe:type>registrant</dnsbe:type>
            <dnsbe:vat>BE 123 4576 5645</dnsbe:vat>
            <dnsbe:lang>nl</dnsbe:lang>
          </dnsbe:contact>
        </dnsbe:create>
      </dnsbe:ext>
    </extension>
    <clTRID>clientref-00003</clTRID>
  </command>
</epp>
```

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2001">
      <msg>Command syntax error</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>line:27: Expected elements
'pw@urn:ietf:params:xml:ns:contact-1.0 ext@urn:ietf:params:xml:ns:contact-1.0'
before the end of the content in element authInfo@urn:ietf:params:xml:ns:contact-
1.0</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

UPDATE CONTACT

PURPOSE: An EPP contact <update> command provides a transform operation that allows a client to modify the attributes of a contact object.

The EPP protocol provides for a granular update, without having to re-specify all unchanged fields ***(with the exception that for a change in address, the complete <addr> block needs to be specified)***. To achieve this goal, the update command consists of add, chg and/or rem blocks.

DNS Belgium registry policy restricts updating the ***licensee*** *(registrant)* contact, the identity has to remain the same. Read more about these restrictions in the general part of these Registration Guidelines under the topic: 'contact types'.

When changes to the registrant's name field (private person or organisation) are necessary and the legal identity of the registrant remains the same, you can file a request for "monitored update" (see the General part of these Registration Guidelines for more information).

Please be aware that minor corrections of the registrant's name field are possible: uppercase/lowercase characters can be exchanged and whitespaces, "." and "-" can be added or removed. Please note: you cannot add whitespaces, "." and "-" to the <org> field if the <org> field was empty prior to the update and you cannot remove them when they are the only entries in the that field.

The update contact command is composed according to the standard EPP syntax. Some components are changed by DNS Belgium and need further explanation:

- **<add>** and **<rem>** The EPP protocol offers the possibility to add to and remove a status from a contact. This is not used by DNS Belgium. If it is provided, EPP will return an error.
- **<contact:id>** is required. This is the contact alias that uniquely identifies a contact. It is generated by the registration system at creation of the contact and returned in the return message.
- **<contact:chg>** is required. This is the tag that indicates that (one of) the following elements needs to be updated in the database.
- The various fields, embedded in a <contact:chg> block are the same as for object creation. Please refer to that command for more information. All fields are optional as you only need to specify those that change. (Note: if you want to change a part of the <addr> block, you need to specify the complete block).

Please refer to the examples to see a complete request.

Examples:

Standard update (when contact is not enabled for monitored update):

```
<?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"
  xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
  xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
              urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd
              http://www.dns.be/xml/epp/dnsbe-1.0 dnsbe-1.0.xsd">
<command>
  <update>
    <contact:update>
      <contact:id>c16</contact:id>
      <contact:chg>
        <contact:postalInfo type="loc">
          <contact:name>Michael Smith</contact:name>
          <contact:addr>
            <contact:street>Green Tower 23</contact:street>
            <contact:city>London</contact:city>
            <contact:sp></contact:sp>
            <contact:pc>1111</contact:pc>
            <contact:cc>GB</contact:cc>
          </contact:addr>
```

```
        </contact:postalInfo>
        <contact:voice>+44.1865332156</contact:voice>
        <contact:fax>+44.1865332157</contact:fax>
      </contact:chg>
    </contact:update>
  </update>
  <extension>
    <dnsbe:ext>
      <dnsbe:update>
        <dnsbe:contact>
          <dnsbe:chg>
            <dnsbe:vat>GB12345678</dnsbe:vat>
            <dnsbe:lang>en</dnsbe:lang>
          </dnsbe:chg>
        </dnsbe:contact>
      </dnsbe:update>
    </dnsbe:ext>
  </extension>
  <clTRID>clientref-00004</clTRID>
</command>
</epp>
```

After a successful update, the EPP server responds with:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Contact c16 updated</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00004</clTRID>
      <svTRID>dnsbe-103</svTRID>
    </trID>
  </response>
</epp>
```

For the same registrant, we only change the telephone number:

```
<?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"
  xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
  xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
              urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd
              http://www.dns.be/xml/epp/dnsbe-1.0 dnsbe-1.0.xsd">
<command>
 <update>
    <contact:update>
      <contact:id>c16</contact:id>
      <contact:chg>
        <contact:voice>+44.166444443</contact:voice>
      </contact:chg>
    </contact:update>
 </update>
  <clTRID>clientref-00005</clTRID>
</command>
</epp>
```

After a successful update, the EPP server responds with:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
```

```
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Contact c16 updated</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00005</clTRID>
      <svTRID>dnsbe-104</svTRID>
    </trID>
  </response>
</epp>
```

For the same registrant, we only blank the <org> field:

```
<?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"
  xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
  xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
              urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd
              http://www.dns.be/xml/epp/dnsbe-1.0 dnsbe-1.0.xsd">
<command>
 <update>
    <contact:update>
      <contact:id>c16</contact:id>
      <contact:chg>
       <contact:postalInfo type="loc">
        <contact:org></contact:org>
      </contact:postalInfo>
      </contact:chg>
    </contact:update>
 </update>
  <clTRID>clientref-00006</clTRID>
</command>
</epp>
```

If this contact were a registrant contact, the EPP server will yield the following result:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2308">
      <msg>Data management policy violation</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Update of company name is not allowed</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00006</clTRID>
      <svTRID>dnsbe-105</svTRID>
    </trID>
  </response>
</epp>
```

To comply with the registry policy, the <contact:org> has to remain the same for a licensee (registrant) contact. The last example for <contact:update> shows the answer if the update fails due to not following the registry policy.

Below an example of a registrar performing a monitored update on the company name where the contact-id is c434. The <org> field will change from "MI5" to "MI5 Central". All other contact details will remain the same.

```
<?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"
  xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
  xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
```

```
              urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd
              http://www.dns.be/xml/epp/dnsbe-1.0 dnsbe-1.0.xsd">
<command>
 <update>
    <contact:update>
      <contact:id>c434</contact:id>
      <contact:chg>
       <contact:postalInfo type="loc">
        <contact:org>MI5 Central</contact:org>
      </contact:postalInfo>
      </contact:chg>
    </contact:update>
 </update>
  <clTRID>clientref-00006</clTRID>
</command>
</epp>
```

The EPP server responds:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Monitored Contact 121 for contact c434 updated</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00006</clTRID>
      <svTRID>dnsbe-81656</svTRID>
    </trID>
  </response>
</epp>
```

If the registrar tries to perform a monitored update while there is still a request pending which needs to be approved by DNS Belgium, the server will reply:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2308">
      <msg>Data management policy violation</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Monitored update has already been done</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00006</clTRID>
      <svTRID>dnsbe-81657</svTRID>
    </trID>
  </response>
</epp>
```

Please note: when a particular contact has been enabled for a monitored update, the update of at least the <org> field (if the registrant is a company) or the <name> field (if the registrant is a private person) is mandatory. If an update command of this contact is performed without change to the <org> or <name> tag, the server will return the following error message:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2308">
      <msg>Data management policy violation</msg>
    </result>
```

```
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Update of company name or private person name is
mandatory</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00006</clTRID>
      <svTRID>dnsbe-81657</svTRID>
    </trID>
  </response>
</epp>
```

DELETE CONTACT

PURPOSE: An EPP contact <delete> command provides a transform operation that allows a client to delete an existing contact object.

The delete contact command is composed according to the standard EPP syntax. Some components need further explanation:

- **<contact:id>** is required. Contains the contact you want to delete.

Please refer to the examples to see a complete request.

Examples:

Deleting the contact c24:

```
<?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"
     xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
     xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
                urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
<command>
  <delete>
    <contact:delete>
      <contact:id>c24</contact:id>
    </contact:delete>
  </delete>
  <clTRID>clientref-00007</clTRID>
</command>
</epp>
```

After a successful operation, the EPP server will respond with:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Contact c24 deleted</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
    <clTRID>clientref-00007</clTRID>
    <svTRID>dnsbe-1541</svTRID>
  </trID>
</response>
</epp>
```

When you try to delete a contact that does not exist:

```
<?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"
     xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
     xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
                urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
<command>
  <delete>
    <contact:delete>
      <contact:id>c24</contact:id>
    </contact:delete>
  </delete>
  <clTRID>clientref-00008</clTRID>
</command>
```

```
</epp>
```

The EPP server will respond with:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:contact="urn:ietf:params:xml:ns:contact-1.0">
  <response>
    <result code="2303">
      <msg>Object does not exist</msg>
      <value>
        <contact:id>c24</contact:id>
      </value>
    </result>
    <trID>
      <clTRID>clientref-00008</clTRID>
      <svTRID>dnsbe-106</svTRID>
    </trID>
  </response>
</epp>
```

When you try to delete a contact that is still linked to a domain name:

```
<?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"
     xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
     xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
                urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
<command>
  <delete>
    <contact:delete>
      <contact:id>c16</contact:id>
    </contact:delete>
  </delete>
  <clTRID>clientref-00009</clTRID>
</command>
</epp>
```

this will return the following message:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2305">
      <msg>Object association prohibits operation</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Contact [c16] still linked to 1 domain(s)</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00009</clTRID>
      <svTRID>dnsbe-107</svTRID>
    </trID>
  </response>
</epp>
```

INFO CONTACT

PURPOSE: to retrieve information associated with a contact object.

Registrars can optionally specify a version when using the command info-contact. By default, the command uses version 1.0. Version 2.0 returns additional information in case of a contact that is 'on hold' or flagged for a monitored update. More information on monitored update can be found in the general part of these Registration Guidelines under the topic: 'contact types'.

The info contact command is composed according to the standard EPP syntax. Some components need further explanation:

To keep the notation simple, we have left out the namespace indication. Please refer to the examples to see what namespace to use.

- **<contact:id>** is required. contains the contact for which you want to obtain the information.
- <**contact version="2.0"/**> is optional. When version 2.0 is specified, more information is visible in the answer.
- <**contact:pw**> is optional. If the registrant (licensee) contact doesn't belong to you, but you know the transfer code of the associated domain, then you can use the transfer code as authorization to view the details of the contact. This is provided so you can check the WHOIS details of the registrant before transferring the domain name.

Please refer to the examples to see a complete request.

Examples:

A valid command would be:

```
<?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"
     xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
     xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
                urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
<command>
  <info>
    <contact:info>
      <contact:id>c16</contact:id>
    </contact:info>
  </info>
  <clTRID>clientref-00010</clTRID>
</command>
</epp>
```

If the contact exists (and belongs to the registrar) the EPP server responds with the contact information:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <contact:infData>
        <contact:id>c16</contact:id>
        <contact:roid>16-DNSBE</contact:roid>
        <contact:status s="ok"/>
        <contact:postalInfo type="loc">
          <contact:name>Smith Jonathan</contact:name>
          <contact:org>Great Company Inc.</contact:org>
          <contact:addr>
            <contact:street>Greenstreet 23</contact:street>
            <contact:city>Brussels</contact:city>
            <contact:pc>1000</contact:pc>
            <contact:cc>BE</contact:cc>
          </contact:addr>
        </contact:postalInfo>
```

```
        <contact:voice>+32.16229373</contact:voice>
        <contact:fax>+32.16284971</contact:fax>
        <contact:email>j.smith@greatcompanyinc.cctld</contact:email>
        <contact:clID>t1-dns-be</contact:clID>
        <contact:crID>t1-dns-be</contact:crID>
        <contact:crDate>2006-10-06T12:25:38.000Z</contact:crDate>
        <contact:upDate>2006-10-09T08:11:56.000Z</contact:upDate>
      </contact:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:contact>
            <dnsbe:type>licensee</dnsbe:type>
            <dnsbe:vat>BE 123 123 123</dnsbe:vat>
            <dnsbe:lang>nl</dnsbe:lang>
          </dnsbe:contact>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00010</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

- **<contact:roid>** Contains the Repository Object IDentifier assigned to the contact object when the contact was created. (This information can be discarded).
- **<contact:status>** Contains the status associated with the object. Currently only 'ok' status is supported.
- **<contact:clID>** Contains the identifier of the current 'sponsoring client' i.e. the registrar ID of the registrar that owns this contact object.
- **<contact:crID>** Contains the identifier of the client and subsystem that created the object. For DNS Belgium, this contains the same registrar ID as the previous one, since an object belongs to a registrar and cannot be transferred or used by another registrar.
- **<contact:crDate>** Contains the creation date and time in UTC time.
- **<contact:upDate>** Contains the last update date and time in UTC.
- **<clTRID>** contains the transaction ID (for tracking the command) that was provided by the registrar in the incoming command.
- **<svTRID>** contains a server generated transaction ID.

Using version 2.0 for the contact c434 would give:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
     xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
     xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <command>
    <info>
      <contact:info>
        <contact:id>c434</contact:id>
    </contact:info>
    </info>
    <extension>
      <dnsbe:ext xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
        <dnsbe:info>
          <dnsbe:contact version="2.0"/>
        </dnsbe:info>
      </dnsbe:ext>
    </extension>
  <clTRID>info-contact-00</clTRID>
  </command>
</epp>
```

Aside from the contact information about the queried contact, the reply will now also contain information about the status of the monitored update and its 'on hold' status.

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <contact:infData>
        <contact:id>c33</contact:id>
        <contact:roid>33-DNSBE</contact:roid>
        <contact:status s="ok"/>
        <contact:postalInfo type="loc">
          <contact:name>Orlov Yuri</contact:name>
          <contact:addr>
            <contact:street>Ubicenter</contact:street>
            <contact:street>Philipssite 5 bus 13</contact:street>
            <contact:city>Leuven</contact:city>
            <contact:pc>3001</contact:pc>
            <contact:cc>BE</contact:cc>
          </contact:addr>
        </contact:postalInfo>
        <contact:voice>+32.16229373</contact:voice>
        <contact:fax>+32.16284971</contact:fax>
        <contact:email>veerle@dns.be</contact:email>
        <contact:clID>t1-dns-be</contact:clID>
        <contact:crID>t1-dns-be</contact:crID>
        <contact:crDate>2006-10-11T08:07:38.000Z</contact:crDate>
        <contact:upDate>2008-04-01T09:14:00.000Z</contact:upDate>
      </contact:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:contact>
            <dnsbe:type>licensee</dnsbe:type>
            <dnsbe:lang>en</dnsbe:lang>
            <dnsbe:onhold>false</dnsbe:onhold>
            <dnsbe:monitoringStatus>updatable</dnsbe:monitoringStatus>
          </dnsbe:contact>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>info-contact-02</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

In this example, you see the contact is not 'on hold' and it has been enabled for a monitored update.

The output contains some new fields:

- **<onhold>** with possible values 'true' and 'false'; 'true' indicates that the contact is on hold (an ADR or court case is pending for this domain name)
- **<monitoringStatus>** with possible values 'updatable' and 'approvalPending'. This field is only specified when a monitored update has been requested.

The appearance of a field in the output depends on the situation of the contact.

A valid command using the transfer code would be:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp
xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
 <command>
  <info>
   <domain:info>
    <domain:name>peer</domain:name>
      <domain:authInfo>
        <domain:pw>156-028-382-047-710</domain:pw>
      </domain:authInfo>
   </domain:info>
  </info>
```

```
  <clTRID>info-domain-00</clTRID>
 </command>
</epp>
```

If the contact exists (and the authcode is correct), the EPP server responds with the contact information.

CHECK CONTACT

PURPOSE: to check the existence of a contact.

As DNS Belgium always generates unique aliases for newly created contacts, there is no reason to check for the availability of a certain alias. This query command is not implemented.

TRANSFER CONTACT

COMMAND NOT AVAILABLE FOR DNS Belgium

In the model underlying the EPP standard, a contact is global, i.e. not belonging to the registrar who created it. However, it can only be updated by the 'sponsoring client', the one who created it.

An object can be transferred (as is the case for a domain in DNS Belgium) to a new sponsoring client. In DNS Belgium, this is not allowed for contact objects. If the same contact object needs to be used by another registrar, that registrar has to create a new (identical) object.

CREATE NSGROUP

PURPOSE: create a list of name servers that can be linked to several domain registrations.

This is a DNS Belgium specific extension, documented in the schema nsgroup-1.0.xsd.

The nsgroup mapping is a DNS Belgium specific object-extension to the EPP norm, coherent with the EPP object extension framework. The nsgroup object allows a registrar to group several name servers in one object, to facilitate the mapping between a domain and a list of name servers. More information about name server groups can be found in the general part of these Registration Guidelines under the topic: 'name server groups'.

Some components of the command need further explanation:

- **<nsgroup:name>** is required. Contains the (chosen) name for the name server group. A name can consist of letters, digits, hyphens and dot(.).
- **<nsgroup:ns>** contains the name of the name server. There can be up to 9 name servers in a name server group.

Please refer to the examples to see a complete request.

Examples:

```
<epp xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
http://www.dns.be/xml/epp/nsgroup-1.0 nsgroup-1.0.xsd"
xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:nsgroup="http://www.dns.be/xml/epp/nsgroup-1.0">
  <command>
    <create>
      <nsgroup:create>
        <nsgroup:name>mynsgroup1</nsgroup:name>
        <nsgroup:ns>ns1.nameserver.be</nsgroup:ns>
        <nsgroup:ns>ns2.nameserver.be</nsgroup:ns>
      </nsgroup:create>
    </create>
    <clTRID>clientref-00011</clTRID>
  </command>
</epp>
```

The EPP server responds, in case of successful creation, a standard EPP response message:

```
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>clientref-00011</clTRID>
      <svTRID>dnsbe-24</svTRID>
    </trID>
  </response>
</epp>
```

Note that it is your responsibility to ensure that the content makes sense. It is perfectly possible to create a name server group with all the same name servers. The result will be that only 1 name server will be linked to the name server group!

```
<epp xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
http://www.dns.be/xml/epp/nsgroup-1.0 nsgroup-1.0.xsd"
xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:nsgroup="http://www.dns.be/xml/epp/nsgroup-1.0">
  <command>
    <create>
      <nsgroup:create>
        <nsgroup:name>greatserver</nsgroup:name>
        <nsgroup:ns>ns1.greatserver.be</nsgroup:ns>
        <nsgroup:ns>ns1.greatserver.be</nsgroup:ns>
        <nsgroup:ns>ns1.greatserver.be</nsgroup:ns>
        <nsgroup:ns>ns1.greatserver.be</nsgroup:ns>
      </nsgroup:create>
```

```
    </create>
    <clTRID>clientref-00012</clTRID>
  </command>
</epp>
```

As you can see, this works:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>clientref-00012</clTRID>
      <svTRID>dnsbe-25</svTRID>
    </trID>
  </response>
</epp>
```

UPDATE NSGOUP

PURPOSE: to update the contents of a name server group.

Note: a nsgroup update updates the whole object at once (there are no <add>, <chg> or <rem> sections as with others EPP objects).

The command structure is identical to the one for the <create> nsgroup and has the same remarks.

Examples:

```
<epp xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
http://www.dns.be/xml/epp/nsgroup-1.0 nsgroup-1.0.xsd"
xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:nsgroup="http://www.dns.be/xml/epp/nsgroup-1.0">
  <command>
    <update>
      <nsgroup:update>
        <nsgroup:name>mynsgroup1</nsgroup:name>
        <nsgroup:ns>ns1.nameserver.be</nsgroup:ns>
        <nsgroup:ns>ns2.nameserver.be</nsgroup:ns>
        <nsgroup:ns>ns3.nameserver.be</nsgroup:ns>
      </nsgroup:update>
    </update>
    <clTRID>clientref-00013</clTRID>
  </command>
</epp>
```

Response from the server:

```
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>clientref-00013</clTRID>
      <svTRID>dnsbe-25</svTRID>
    </trID>
  </response>
</epp>
```

Please note that when updating a name server group, you are replacing all existing name servers by the set provided in the update command. So if you want to keep the existing name servers and just add another one, you need to respecify the old ones and add the new one.

DELETE NSGROUP

PURPOSE: to delete a name server group.

Note: it is not possible to delete a name server group that is still linked to 1 or more domains.

The structure of the command is identical to that of a <delete> contact:

- **<nsgroup:name>** is required. Contains the name of the name server group.

Please refer to the examples to see a complete request.

Examples:

```
<?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"
       xmlns:nsgroup="http://www.dns.be/xml/epp/nsgroup-1.0"
       xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
                           http://www.dns.be/xml/epp/nsgroup-1.0 nsgroup-
1.0.xsd">
   <command>
    <delete>
     <nsgroup:delete>
       <nsgroup:name>mynsgroup1</nsgroup:name>
     </nsgroup:delete>
    </delete>
    <clTRID>clientref-00013</clTRID>
   </command>
  </epp>
```

Giving:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>clientref-00013</clTRID>
      <svTRID>dnsbe-110</svTRID>
    </trID>
  </response>
</epp>
```

CHECK NSGROUP

PURPOSE: The EPP <check> nsgroup command is used to determine if one or several objects can be provisioned within a repository. It provides a hint that allows a client to anticipate the success or failure of provisioning an object using the <create> command.

Specify one <nsgroup:name> element for every nsgroup that you want to check:

- **<nsgroup:name>** is required. Contains the name of the name server group.

Many nsgroup objects can be checked with a single check command.

Please refer to the examples to see a complete request.

Examples:

A check for 2 objects:

```
<?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"
     xmlns:nsgroup="http://www.dns.be/xml/epp/nsgroup-1.0"
     xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
            http://www.dns.be/xml/epp/nsgroup-1.0 nsgroup-1.0.xsd">
<command>
  <check>
    <nsgroup:check>
      <nsgroup:name>mynsgroup1</nsgroup:name>
      <nsgroup:name>mynsgroup2</nsgroup:name>
    </nsgroup:check>
  </check>
  <clTRID>clientref-00014</clTRID>
 </command>
</epp>
```

Which returns:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:nsgroup="http://www.dns.be/xml/epp/nsgroup-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <nsgroup:chkData>
        <nsgroup:cd>
          <nsgroup:name avail="false">mynsgroup1</nsgroup:name>
        </nsgroup:cd>
        <nsgroup:cd>
          <nsgroup:name avail="false">mynsgroup2</nsgroup:name>
        </nsgroup:cd>
      </nsgroup:chkData>
    </resData>
    <trID>
      <clTRID>clientref-00014</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

- <**nsgroup:name**> Contains the name of the nsgroup that was checked. The 'avail' attribute contains a value of 'false' if the nsgroup is not available, a value of 'true' if the nsgroup is available, at the time of the check.
  There is an entry in the command for each of the name server groups that were checked.

INFO NSGROUP

PURPOSE: allows the registrar to retrieve information about the current status of an existing nsgroup.

The structure of the command is identical to that of a <delete> nsgroup:

- **<nsgroup:name>** is required. Contains the name of the name server group.

Information for only one name server group can be retrieved within the same command.

Please refer to the examples to see a complete request.

Examples:

A valid command to retrieve information about the current status of the nsgroup "test" would be:

```
<?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"
  xmlns:nsgroup="http://www.dns.be/xml/epp/nsgroup-1.0"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
  http://www.dns.be/xml/epp/nsgroup-1.0 nsgroup-1.0.xsd">
  <command>
    <info>
      <nsgroup:info>
        <nsgroup:name>test</nsgroup:name>
      </nsgroup:info>
    </info>
    <clTRID>nsgroup-test-456</clTRID>
  </command>
</epp>
```

The server will return the information for that name server group:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:nsgroup="http://www.dns.be/xml/epp/nsgroup-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <nsgroup:infData>
        <nsgroup:name>test</nsgroup:name>
        <nsgroup:ns>bebe.test.be</nsgroup:ns>
      </nsgroup:infData>
    </resData>
    <trID>
      <clTRID>nsgroup-test-456</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

CREATE KEYGROUP

PURPOSE: create a list of keys that can be linked to multiple domain registrations.

This is a DNS Belgium specific extension, documented in the schema keygroup-1.0.xsd.

The keygroup mapping is a DNS Belgium specific object-extension to the EPP norm, coherent with the EPP object extension framework. The keygroup object allows a registrar to group several keys in one object, to facilitate the mapping between a domain and a list of keys. More information about keygroups can be found in the general part of these Registration Guidelines under the topic: 'keygroups'.

Some components of the command need further explanation:

- **<keygroup:name>** is required. Contains the (chosen) name for the keygroup. A name can consist of letters, digits, hyphens and dot(.).
- **<keygroup:key>** Each keygroup can hold at most 4 keys.
- **<secDNS:flags>** is required. DNS Belgium only accepts flag 257 (KSK).
- **<secDNS:protocol>** is required. Indicates the protocol used, DNSSEC requires protocol 3.
- **<secDNS:alg>** is required. Indicates the algorithm used to generate the key, DNS Belgium supports 4 algorithms to generate keys: (8) RSA-SHA256, (10) RSA-SHA512, (13) ECDSA Curve P-256 with SHA-256 and (14) ECDSA Curve P-384 with SHA-384.
- **<secDNS:pubKey>** is required. Contains the value of the public key.

Please refer to the examples to see a complete request.

Examples:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
    xmlns:secDNS="urn:ietf:params:xml:ns:secDNS-1.1">
  <command>
    <create>
      <keygroup:create xmlns:keygroup="http://www.dns.be/xml/epp/keygroup-1.0">
        <keygroup:name>mykeygroup</keygroup:name>
        <keygroup:key>
          <secDNS:flags>257</secDNS:flags>
          <secDNS:protocol>3</secDNS:protocol>
          <secDNS:alg>8</secDNS:alg>

<secDNS:pubKey>AwEAAchObqtQhBlAmwkFeVOjgi3rG3skoTWKOcb7dtnoah1bgpTth6Rkqdp3cQeiHB
cuHD5o6YLRgR03okzZGF15TNewAyzt6lQXJnsFdrDGR9GcvnqY98SnmyBU/2KXZKkX5GaSJ5WGrz5I9VT
oShdssNbEULcRM38aPtd913PnkfYGYr2g1aPYGPx1NwK36bMNHSbrmZEJDYijPfc/HP2/4Wf74/eUL+q9
55imeukUFQJa+Ufzb+get4RAVRJ9SH3q/nITzCk/6tu8bWuOMn+oZfUaRq4llTKmmQ2ZDGBC3Uk5E++If
KvgIj6yOQhZbY+PLcN3gj8qYqin 213gwynWKm8=</secDNS:pubKey>
        </keygroup:key>
      </keygroup:create>
    </create>
    <clTRID>create-keygroup</clTRID>
  </command>
</epp>
```

The EPP server responds, in case of successful creation, a standard EPP response message:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>create-keygroup</clTRID>
      <svTRID>dnsbe-342993</svTRID>
    </trID>
  </response>
</epp>
```

Note that it is your responsibility to ensure that the content makes sense. It is perfectly possible to create a keygroup with all the same keys. The result will be that only 1 key will be linked to the keygroup!

UPDATE KEYGOUP

PURPOSE: to update the contents of a keygroup.

Note: a keygroup update updates the whole object at once (there are no <add>, <chg> or <rem> sections as with others EPP objects).

The command structure is identical to the one for the <create> keygroup and has the same remarks.

Please refer to the examples to see a complete request.

Examples:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
    xmlns:secDNS="urn:ietf:params:xml:ns:secDNS-1.1">
  <command>
    <update>
      <keygroup:update xmlns:keygroup="http://www.dns.be/xml/epp/keygroup-1.0">
      <keygroup:name>mykeygroup</keygroup:name>
        <keygroup:key>
          <secDNS:flags>257</secDNS:flags>
          <secDNS:protocol>3</secDNS:protocol>
          <secDNS:alg>8</secDNS:alg>

<secDNS:pubKey>AwEAAeJ11kXTLdxgQvU0vZx72vGq3jQ8uCySa6LlUG5AKTtzOVorAAAA</secDNS:p
ubKey>
        </keygroup:key>
        <keygroup:key>
          <secDNS:flags>257</secDNS:flags>
          <secDNS:protocol>3</secDNS:protocol>
          <secDNS:alg>8</secDNS:alg>

<secDNS:pubKey>AwEAAeJ11kXTLdxgQvU0vZx72vGq3jQ8uCySa6LlUG5AKTtzOVorBBBB</secDNS:p
ubKey>
        </keygroup:key>
      </keygroup:update>
    </update>
    <clTRID>update-keygroup</clTRID>
  </command>
</epp>
```

Response from the server:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>update-keygroup</clTRID>
      <svTRID>dnsbe-342998</svTRID>
    </trID>
  </response>
</epp>
```

Please note that when updating a keygroup, you are replacing all existing keys by the set provided in the update command. So, if you want to keep the existing keys and just add another one, you need to respecify the old ones and add the new one.

DELETE KEYGROUP

PURPOSE: to delete a keygroup.

Note: it is not possible to delete a keygroup that is still linked to 1 or more domains.

The structure of the command is identical to that of a <delete> contact:

- **<keygroup:name>** is required. Contains the name of the keygroup.

Please refer to the examples to see a complete request.

Examples:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <command>
    <delete>
      <keygroup:delete xmlns:keygroup="http://www.dns.be/xml/epp/keygroup-1.0">
        <keygroup:name>keygroup</keygroup:name>
      </keygroup:delete>
    </delete>
    <clTRID>delete-keygroup</clTRID>
  </command>
</epp>
```

Giving:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>delete-keygroup</clTRID>
      <svTRID>dnsbe-342999</svTRID>
    </trID>
  </response>
</epp>
```

CHECK KEYGROUP

PURPOSE: to check the existence of a keygroup.

The structure of the command is identical to that of a <check> nsgroup:

- **<keygroup:name>** is required. Contains the name of the keygroup.

A check can be done on many objects within the same command.

Please refer to the examples to see a complete request.

Examples:

The check is done on 2 objects:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
 <command>
  <check>
   <keygroup:check xmlns:keygroup="http://www.dns.be/xml/epp/keygroup-1.0">
     <keygroup:name>mykeygroup</keygroup:name>
     <keygroup:name>otherkeygroup</keygroup:name>
   </keygroup:check>
  </check>
  <clTRID>check-keygroup</clTRID>
 </command>
</epp>
```

Which returns:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:keygroup="http://www.dns.be/xml/epp/keygroup-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <keygroup:chkData>
        <keygroup:cd>
          <keygroup:name avail="false">mykeygroup</keygroup:name>
        </keygroup:cd>
        <keygroup:cd>
          <keygroup:name avail="true">otherkeygroup</keygroup:name>
        </keygroup:cd>
      </keygroup:chkData>
    </resData>
    <trID>
      <clTRID>check-keygroup</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

- **<keygroup:name>** Contains the name of the keygroup that was checked. The 'avail' attribute contains a value of 'false' if the keygroup is not available, a value of 'true' if the keygroup is available, at the time of the check.
  There is an entry in the command for each of the keygroups that were checked.

INFO KEYGROUP

PURPOSE: allows the registrar to retrieve information about the current status of an existing keygroup.

The structure of the command is identical to that of a <info> nsgroup:

- **<keygroup:name>** is required. Contains the name of the keygroup.

One <info> command can only retrieve information for a single keygroup.

Please refer to the examples to see a complete request.

Examples:

A valid command to retrieve information about the current status of a keygroup is:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <command>
    <info>
      <keygroup:info xmlns:keygroup="http://www.dns.be/xml/epp/keygroup-1.0">
        <keygroup:name>mykeygroup</keygroup:name>
      </keygroup:info>
    </info>
    <clTRID>info-keygroup</clTRID>
  </command>
</epp>
```

The server will return the information for that keygroup:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:keygroup="http://www.dns.be/xml/epp/keygroup-1.0"
xmlns:secDNS="urn:ietf:params:xml:ns:secDNS-1.1">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <keygroup:infData>
        <keygroup:name>mykeygroup</keygroup:name>
        <keygroup:key>
          <secDNS:flags>257</secDNS:flags>
          <secDNS:protocol>3</secDNS:protocol>
          <secDNS:alg>8</secDNS:alg>

<secDNS:pubKey>AwEAAchObqtQhBlAmwkFeVOjgi3rG3skoTWKOcb7dtnoah1bgpTth6Rkqdp3cQeiHB
cuHD5o6YLRgR03okzZGF15TNewAyzt6lQXJnsFdrDGR9GcvnqY98SnmyBU/2KXZKkX5GaSJ5WGrz5I9VT
oShdssNbEULcRM38aPtd913PnkfYGYr2g1aPYGPx1NwK36bMNHSbrmZEJDYijPfc/HP2/4Wf74/eUL+q9
55imeukUFQJa+Ufzb+get4RAVRJ9SH3q/nITzCk/6tu8bWuOMn+oZfUaRq4llTKmmQ2ZDGBC3Uk5E++If
KvgIj6yOQhZbY+PLcN3gj8qYqin213gwynWKm8=</secDNS:pubKey>
        </keygroup:key>
      </keygroup:infData>
    </resData>
    <trID>
      <clTRID>info-keygroup</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

CREATE DOMAIN

PURPOSE: create a new domain name.

The EPP protocol specifies two ways of working with name servers:

- name servers as first-class objects.
- name servers merely as attributes to a domain name. It is this possibility that DNS Belgium has adopted. Technically speaking, this means you will need to use the <hostAttr> element and not the <hostObj> element.

DNS Belgium does not have host objects as separate entities. A name server is specified on the domain object command; and is created, deleted or updated as needed, transparently to the client. A host/name server cannot be accessed directly as an EPP object.

The EPP standard supposes that the domain name that is being registered, contains the trailing TLD extension. This is because EPP can be used by registries that manage more than one extension. For consistency reasons, we will accept domain names without the '.be' extensions. If, however, an extension is provided, it will be checked and only '.be' extensions will be handled.

A domain name object has a one-year validity period. The two only accepted values for validity periods are 12 months and 1 year.

The elements and tags that are relevant for DNS Belgium are specified below. Tags that are optional can be omitted without producing an XML parsing error. Some components of the command need further explanation:

- **<domain:name>** is required. Is the domain name to create, with or without the trailing '.be'. It can be more than 63 characters long but will return an error from the transaction processor when that is the case.
- **<domain:period>** is optional. Is the domain validity period. Only accepted values are 1 with unit 'y' (year) and 12 with unit 'm' (month).
- **<domain:ns>** is optional. Contains a list of name servers.
- **<domain:hostAttr>** is required if <domain:ns> is present. DNS Belgium server policy limits up to 9. Optional <hostAddr> elements allow for specifying required glue records.
- **<domain:registrant>** is required. Is the registrant alias of the domain. The registrant must be a valid contact, created on the system before with either EPP or via other means (web).
- **<domain:contact>** Is the list of contacts to associate with this domain. The type attribute can be one of: 'billing' (billing contact) (exactly 1), 'tech' (technical contact) (0 to 5), 'onsite' (onsite contact) (0 to 5). DNS Belgium policy requires 1 'billing' contact and at least 1 of 'tech' or 'onsite'. The command will fail when the number of contacts per type violates the above rules.
- **<domain:authInfo>** Contains the authorization information associated with the domain. This value is currently ignored. As it is a required element in the schema, it must be provided. However, you don't have to specify a value between the tags.
- **<dnsbe:nsgroup>** is optional. Contains the list of name server groups.
- **<dnsbe:keygroup>** is optional. Contains the list of keygroups.
- **<secDNS:keyData>** is optional. Contains a list of maximum 4 keys. Following elements are required if this is present:
- **<secDNS:flags>** DNS Belgium only accepts flag 257 (KSK).
- **<secDNS:protocol>** Indicates the protocol used, DNSSEC requires protocol 3.
- **<secDNS:alg>** Indicates the algorithm used to generate the key, DNS Belgium supports 4 algorithms to generate keys: (8) RSA-SHA256, (10) RSA-SHA512, (13) ECDSA Curve P-256 with SHA-256 and (14) ECDSA Curve P-384 with SHA-384.
- **<secDNS:pubKey>** Contains the value of the public key.

More information about new domain names can be found in the general part of these Registration Guidelines under the topic: 'domain names'.

Please refer to the examples to see a complete request.

Examples:

A simple registration:

```
<epp xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd http://www.dns.be/xml/epp/dnsbe-
1.0 dnsbe-1.0.xsd" xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <command>
    <create>
      <domain:create>
        <domain:name>greatdomain.be</domain:name>
        <domain:registrant>c16</domain:registrant>
        <domain:contact type="billing">c14</domain:contact>
        <domain:contact type="tech">c17</domain:contact>
        <domain:authInfo>
          <domain:pw>not-used</domain:pw>
        </domain:authInfo>
      </domain:create>
    </create>
<clTRID>client-00016</clTRID>
</command>
</epp>
```

The result of this transaction will be another document for which you can find the description(s) in the EPP schemas:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:creData>
        <domain:name>test-domain-2.be</domain:name>
        <domain:crDate>2006-10-09T09:45:17.586Z</domain:crDate>
      </domain:creData>
    </resData>
    <trID>
      <clTRID>client-00016</clTRID>
      <svTRID>dnsbe-111</svTRID>
    </trID>
  </response>
</epp>
```

- **<result>** Contains the result information. See EPP result code list for more information on the meaning of codes.
- **<msg>** Is the result code in text format.
- **<domain:name>** Is the domain name created (with the trailing '.be')
- **<domain:crDate>** Is the real creation date in UTC time.
- **<clTRID>** Is the transaction ID provided by the registrar in the input command.
- **<svTRID>** Is the server unique transaction ID.

The registration of a domain name with name servers (one with a glue record) and one name server group.

```
<epp xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd http://www.dns.be/xml/epp/dnsbe-
1.0 dnsbe-1.0.xsd" xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <command>
    <create>
      <domain:create>
        <domain:name>greatdomain.be</domain:name>
        <domain:ns>
          <domain:hostAttr>
```

```
            <domain:hostName>ns.hostingcompany.be</domain:hostName>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>ns.greatdomain.be</domain:hostName>
            <domain:hostAddr>193.168.0.1</domain:hostAddr>
          </domain:hostAttr>
        </domain:ns>
        <domain:registrant>c16</domain:registrant>
        <domain:contact type="billing">c14</domain:contact>
        <domain:contact type="tech">c17</domain:contact>
        <domain:authInfo>
          <domain:pw>not-used</domain:pw>
        </domain:authInfo>
      </domain:create>
    </create>
    <extension>
      <dnsbe:ext>
        <dnsbe:create>
          <dnsbe:domain>
            <dnsbe:nsgroup>mynsgroup1</dnsbe:nsgroup>
          </dnsbe:domain>
        </dnsbe:create>
      </dnsbe:ext>
    </extension>
    <clTRID>clientref-00017</clTRID>
  </command>
</epp>
```

The result of this transaction is:

```
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:creData>
        <domain:name>greatdomain.be</domain:name>
        <domain:crDate>2006-10-06T12:47:31.736Z</domain:crDate>
      </domain:creData>
    </resData>
    <trID>
      <clTRID>clientref-00017</clTRID>
      <svTRID>dnsbe-32</svTRID>
    </trID>
  </response>
</epp>
```

A registration with a name server that needs a glue record (as it is in the same domain as the one registered):

```
<?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"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd
http://www.dns.be/xml/epp/dnsbe-1.0 dnsbe-1.0.xsd">
<command>
<create>
<domain:create>
<domain:name>test-domain-1.be</domain:name>
<domain:ns>
  <domain:hostAttr>
     <domain:hostName>ns.test-domain-1.be</domain:hostName>
  </domain:hostAttr>
</domain:ns>
<domain:registrant>c16</domain:registrant>
<domain:contact type="billing">c14</domain:contact>
<domain:contact type="tech">c17</domain:contact>
</domain:create>
</create>
<clTRID>client-00018</clTRID>
</command>
```

```
</epp>
```

The result of this transaction is:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2005">
      <msg>Parameter value syntax error</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>missing glue for ns.test-domain-1.be</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>client-00018</clTRID>
      <svTRID>dnsbe-113</svTRID>
    </trID>
  </response>
</epp>
```

Also, when you specify a hostAddr element when it is not needed, an error is generated:

```
<?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"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd
http://www.dns.be/xml/epp/dnsbe-1.0 dnsbe-1.0.xsd">
<command>
<create>
<domain:create>
<domain:name>test-domain-1.be</domain:name>
<domain:ns>
  <domain:hostAttr>
     <domain:hostName>ns.anotherdomain.be</domain:hostName>
     <domain:hostAddr>1.2.3.4</domain:hostAddr>
  </domain:hostAttr>
</domain:ns>
<domain:registrant>c16</domain:registrant>
<domain:contact type="billing">c14</domain:contact>
<domain:contact type="tech">c17</domain:contact>
</domain:create>
</create>
<clTRID>client-00019</clTRID>
</command>
</epp>
```

The result of this transaction is:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2005">
      <msg>Parameter value syntax error</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>glue not required for ns.anotherdomain.be</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>client-00019</clTRID>
      <svTRID>dnsbe-114</svTRID>
    </trID>
  </response>
</epp>
```

A registration with an nsgroup and a keygroup:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <command>
    <create>
      <domain:create xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
        <domain:name>signeddomain</domain:name>
        <domain:registrant>c104153</domain:registrant>
        <domain:contact type="billing">c80</domain:contact>
        <domain:contact type="tech">c81</domain:contact>
        <domain:authInfo>
          <domain:pw></domain:pw>
        </domain:authInfo>
      </domain:create>
    </create>
    <extension>
      <dnsbe:ext xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
        <dnsbe:create>
          <dnsbe:domain>
            <dnsbe:nsgroup>greatserver</dnsbe:nsgroup>
            <dnsbe:keygroup>mykeygroup</dnsbe:keygroup>
          </dnsbe:domain>
        </dnsbe:create>
      </dnsbe:ext>
    </extension>
    <clTRID>domain-create-01</clTRID>
  </command>
</epp>
```

The server responds:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:creData>
        <domain:name>signeddomain</domain:name>
        <domain:crDate>2010-08-06T12:09:55.042Z</domain:crDate>
      </domain:creData>
    </resData>
    <trID>
      <clTRID>domain-create-01</clTRID>
      <svTRID>dnsbe-343004</svTRID>
    </trID>
  </response>
</epp>
```

A registration with a key.

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <command>
    <create>
      <domain:create xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
        <domain:name>signeddomain</domain:name>
        <domain:registrant>c104153</domain:registrant>
        <domain:contact type="billing">c80</domain:contact>
        <domain:contact type="tech">c81</domain:contact>
        <domain:authInfo>
          <domain:pw></domain:pw>
        </domain:authInfo>
      </domain:create>
    </create>
    <extension>
      <secDNS:create xmlns:secDNS="urn:ietf:params:xml:ns:secDNS-1.1">
        <secDNS:keyData>
          <secDNS:flags>257</secDNS:flags>
          <secDNS:protocol>3</secDNS:protocol>
          <secDNS:alg>8</secDNS:alg>

<secDNS:pubKey>AwEAAchObqtQhBlAmwkFeVOjgi3rG3skoTWKOcb7dtnoah1bgpTth6Rkqdp3cQeiHB
cuHD5o6YLRgR03okzZGF15TNewAyzt6lQXJnsFdrDGR9Gcvnqy98SnmyBU/2KXZKkX5GaSJ5WGrz5I9VT
```

```
oShdssNbEULcRM38aPtd913PnkfYGYr2g1aPYGPx1NwK36bMNHSbrmZEJDYijPfc/HP2/4Wf74/eUL+q9
55imeukUFQJa+Ufzb+get4RAVRJ9SH3q/nITzCk/6tu8bWuOMn+oZfUaRq4llTKmmQ2ZDGBC3Uk5E++If
KvgIj6yOQhZbY+PLcN3gj8qYqin 213gwynWKm8=</secDNS:pubKey>
        </secDNS:keyData>
      </secDNS:create>
    </extension>
    <clTRID>domain-create-dnskey-00</clTRID>
  </command>
</epp>
```

The server responds:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:creData>
        <domain:name>signeddomain</domain:name>
        <domain:crDate>2010-08-06T12:03:48.884Z</domain:crDate>
      </domain:creData>
    </resData>
    <trID>
      <clTRID>domain-create-dnskey-00</clTRID>
      <svTRID>dnsbe-343002</svTRID>
    </trID>
  </response>
</epp>
```

Please note that it is **not** possible to register a domain name with both keys and keygroups!

A registration with all possible additions:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <command>
    <create>
      <domain:create xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
        <domain:name>signeddomain</domain:name>
        <domain:ns>
          <domain:hostAttr>
            <domain:hostName>ns.signeddomain.be</domain:hostName>
            <domain:hostAddr>2001:be1::1:2</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>ns1.greatserver.be</domain:hostName>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>ns2.greatserver.be</domain:hostName>
          </domain:hostAttr>
        </domain:ns>
        <domain:registrant>c104153</domain:registrant>
        <domain:contact type="billing">c80</domain:contact>
        <domain:contact type="tech">c81</domain:contact>
        <domain:contact type="onsite">c7052</domain:contact>
        <domain:authInfo>
          <domain:pw></domain:pw>
        </domain:authInfo>
      </domain:create>
    </create>
    <extension>
      <dnsbe:ext xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
        <dnsbe:create>
          <dnsbe:domain>
            <dnsbe:nsgroup>greatserver</dnsbe:nsgroup>
            <dnsbe:keygroup>mykeygroup</dnsbe:keygroup>
          </dnsbe:domain>
        </dnsbe:create>
      </dnsbe:ext>
    </extension>
    <clTRID>domain-create-01</clTRID>
  </command>
</epp>
```

The server responds:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:creData>
        <domain:name>signeddomain</domain:name>
        <domain:crDate>2010-08-06T12:18:19.519Z</domain:crDate>
      </domain:creData>
    </resData>
    <trID>
      <clTRID>domain-create-01</clTRID>
      <svTRID>dnsbe-343006</svTRID>
    </trID>
  </response>
</epp>
```

Remark:

In case the connection broke down during this transaction and you are not sure that your registration was successful, establish a new session and send a check domain request. If the domain name was not registered and is still available for registration, you can send your create domain request again.

A non-exhaustive list of possible error messages regarding a create domain request is:

- 2001 (Command syntax error), with possible messages:
- missing value in element
- missing element (e.g. No domain name or no registrant)
- incorrect value type
- 2004 (Parameter value range error)
- Period must be 1 year or 12 months [HITPOINT]
- 2005 (Parameter value syntax error), with possible messages:
- Invalid pubKey [HITPOINT]
- using keygroup and keys at the same time [HITPOINT]
- 2104 (Billing failure), Not enough money for this transaction [HITPOINT]
- 2302 (object exists), if the domain name already exists.
- 2303 (Object does not exist),
- contact [*contact alias*] is not an active contact [HITPOINT]
- wrong type for contact (onsite instead of tech) [HITPOINT]
- nameserver group does not exists [HITPOINT]
- keygroup *keygroup name* does not exist [HITPOINT]
- 2306 (Parameter value policy error),
- invalid domain name [HITPOINT]
- 2308 (Data management policy violation), with possible messages:
- Too many tech contacts given [HITPOINT]
- Too many onsite contacts given [HITPOINT]
- No billing contact [HITPOINT]
- No technical or onsite contact [HITPOINT]

When you have received too many hitpoints, the server will respond:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dn
sbe-1.0">
  <response>
    <result code="2308">
      <msg>Data management policy violation</msg>
    </result>
    <extension>
```

```
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>operation not available because of too many
hitpoints</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

UPDATE DOMAIN

PURPOSE: to change any of the attributes of the domain object.

It is possible to change a domain object, without having to re-specify the elements that don't have to change.

The message is therefore composed of three sections: <add>, <rem> and <chg>.

- the <add> allows the client to add some data to the current domain,
- the <rem> to remove data, and
- the <chg> to update current data from the domain.

The fields must be in the following order: <add>, then <rem>, then <chg>.

This transaction can be used to update data (even link a new contact to the domain) related to a domain name. However, restrictions have been built-in to ensure that the identity of the registrant remains intact (i.e. org and/or name). (To change the identity of the registrant, use the TRANSFER DOMAIN command). See the general part of these Registration Guidelines for more information about contacts.

In case the domain name is under Domain Guard, it won't be possible to update the domain name. You can see if a domain name is under Domain Guard via an "info-domain v1 and v2" (when the domain name belongs to you as a registrar). If an update is initiated on such a domain name, a hitpoint will be attributed. The error message you will receive in case of Domain Guard is:

- 2304 (Object status prohibits operation)
- Domain [%s] has invalid status (serverUpdateProhibited)

The elements and tags that are relevant for DNS Belgium are specified below. Tags that are optional can be omitted without producing an XML parsing error. Some components of the command need further explanation:

- **<domain:name>** is required. Is the domain name to update, with or without a trailing .be. (see <create> domain for details).
- The <**add**> and <**rem**> section contain the following child elements, in that order:
- <**ns**> Is used to add or to remove a name server from the name server list.
- <**contact**> Contains one or more contact aliases to add or to remove from the contact list. See <create> domain for details.
- <**status**> has a required attribute 's' which is modified by DNS Belgium to only accept 'clientTransferProhibited' or 'serverTransferProhibited'. A domain name can be blocked for transfer. The 'clientTransferProhibited' flag can be set by the registrar, the 'serverTransferProhibited' flag is set by the registry.
- The <**chg**> section contains the following child elements:
- <**registrant**> Is the domain licensee alias.
- The <**extensions**> contain the name server groups and/or keys/keygroups.
- <**add**> is used to add new groups; <**rem**> is used to remove groups.
- For individual keys, please note that the order of the change sections is different from the overall order of <update-domain>. The correct order for the sections of a <secDNS:update> is <rem>, <add>, <chg>. The <chg> section can only be used to change the <maxSigLife> attribute of the keys.

It is perfectly possible to remove a name server and replace it with another one that needs an IP address, while at the same time adding a name server group.

Please refer to the examples to see a complete request.

Examples:

Before updating a domain, check if you are really changing something in the domain. The EPP server does not allow the removal and addition of the same name server or contacts in one transaction. To

avoid these useless transactions, execute an <info-domain> and remove redundant updates from the transaction before sending it to the EPP server. Only the fields that differ from the current information in the database have to be updated.

In this example, we combine a few modifications. For the domain name 'greatdomain.be', a new name server and a new technical contact are added, while another technical contact is removed. At the same time, we add a new name server group and remove another one.

```
<?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"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd
http://www.dns.be/xml/epp/dnsbe-1.0 dnsbe-1.0.xsd">
<command>
<update>
  <domain:update>
    <domain:name>greatdomain.be</domain:name>
      <domain:add>
      <domain:ns>
         <domain:hostAttr>
            <domain:hostName>ns2.greatdomain.be</domain:hostName>
            <domain:hostAddr>193.168.0.2</domain:hostAddr>
         </domain:hostAttr>
      </domain:ns>
     <domain:contact type="onsite">c18</domain:contact>
     </domain:add>
     <domain:rem>
       <domain:ns>
         <domain:hostAttr>
            <domain:hostName>ns.hostingcompany.be</domain:hostName>
         </domain:hostAttr>
    </domain:ns>
    </domain:rem>
 </domain:update>
</update>
<extension>
  <dnsbe:ext>
    <dnsbe:update>
      <dnsbe:domain>
      <dnsbe:add>
         <dnsbe:nsgroup>newnsgroup1</dnsbe:nsgroup>
      </dnsbe:add>
      <dnsbe:rem>
           <dnsbe:nsgroup>mynsgroup1</dnsbe:nsgroup>
      </dnsbe:rem>
     </dnsbe:domain>
  </dnsbe:update>
</dnsbe:ext>
</extension>
<clTRID>clientref-00020</clTRID>
</command>
</epp>
```

A positive response would be:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>OK</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00020</clTRID>
      <svTRID>dnsbe-118</svTRID>
```

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

The previous command describes the following changes:

- it adds the name server 'ns2.greatdomain.be' as well as the onsite contact 'c18'
- it removes the name server 'ns.hostingcompany.be'
- and finally adds the name server group 'newnsgroup1' and removes the name server group 'mynsgroup1'.

Adding a name server that is already linked to the domain object:

```
<?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"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd
http://www.dns.be/xml/epp/dnsbe-1.0 dnsbe-1.0.xsd">
<command>
<update>
  <domain:update>
    <domain:name>greatdomain.be</domain:name>
      <domain:add>
      <domain:ns>
         <domain:hostAttr>
            <domain:hostName>ns2.greatdomain.be</domain:hostName>
            <domain:hostAddr>193.168.0.2</domain:hostAddr>
         </domain:hostAttr>
      </domain:ns>
     </domain:add>
  </domain:update>
</update>
<clTRID>clientref-00021</clTRID>
</command>
</epp>
```

…would give:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2002">
      <msg>Command use error</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Nameserver ns2.greatdomain.be is already linked to domain
greatdomain</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00021</clTRID>
      <svTRID>dnsbe-120</svTRID>
    </trID>
  </response>
</epp>
```

Or removing a contact that was not linked to the domain object:

```
<?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"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd
http://www.dns.be/xml/epp/dnsbe-1.0 dnsbe-1.0.xsd">
<command>
<update>
  <domain:update>
```

```
    <domain:name>greatdomain.be</domain:name>
      <domain:rem>
       <domain:contact type="tech">c20</domain:contact>
      </domain:rem>
  </domain:update>
</update>
<clTRID>clientref-00022</clTRID>
</command>
</epp>
```

… would give:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2002">
      <msg>Command use error</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>contact c20 is not linked to registration</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00022</clTRID>
      <svTRID>dnsbe-121</svTRID>
    </trID>
  </response>
</epp>
```

In this example, we add a keygroup to the domain name:

```
<?xml version="1.0" encoding="UTF-8"?>
<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>signeddomain</domain:name>
      </domain:update>
    </update>
    <extension>
      <dnsbe:ext xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
        <dnsbe:update>
          <dnsbe:domain>
            <dnsbe:add>
              <dnsbe:keygroup>mykeygroup</dnsbe:keygroup>
            </dnsbe:add>
          </dnsbe:domain>
        </dnsbe:update>
      </dnsbe:ext>
    </extension>
    <clTRID>update-domain-add-keygroup</clTRID>
  </command>
</epp>
```

The server responds:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>update-domain-add-keygroup</clTRID>
      <svTRID>dnsbe-343013</svTRID>
    </trID>
  </response>
</epp>
```

Or adding a key to the domain name:

```
<?xml version="1.0" encoding="UTF-8"?>
<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>signeddomain</domain:name>
      </domain:update>
    </update>
    <extension>
      <secDNS:update xmlns:secDNS="urn:ietf:params:xml:ns:secDNS-1.1">
        <secDNS:add>
          <secDNS:keyData>
          <secDNS:flags>257</secDNS:flags>
          <secDNS:protocol>3</secDNS:protocol>
          <secDNS:alg>8</secDNS:alg>

<secDNS:pubKey>AwEAAchObqtQhBlAmwkFeVOjgi3rG3skoTWKOcb7dtnoah1bgpTth6Rkqdp3cQeiHB
cuHD5o6YLRgR03okzZGF15TNewAyzt6lQXJnsFdrDGR9Gcvnqy98SnmyBU/2KXZKkX5GaSJ5WGrz5I9VT
oShdssNbEULcRM38aPtd913PnkfYGYr2g1aPYGPx1NwK36bMNHSbrmZEJDYijPfc/HP2/4Wf74/eUL+q9
55imeukUFQJa+Ufzb+get4RAVRJ9SH3q/nITzCk/6tu8bWuOMn+oZfUaRq4llTKmmQ2ZDGBC3Uk5E++If
KvgIj6yOQhZbY+PLcN3gj8qYqin 213gwynWKm8=</secDNS:pubKey>
          </secDNS:keyData>
        </secDNS:add>
      </secDNS:update>
    </extension>
    <clTRID>domain-update-add-dnskey-00</clTRID>
  </command>
</epp>
```

would give:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>domain-update-add-dnskey-00</clTRID>
      <svTRID>dnsbe-343014</svTRID>
    </trID>
  </response>
</epp>
```

In this example, the keygroup is removed and a key is added instead:

```
<?xml version="1.0" encoding="UTF-8"?>
<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>signeddomain</domain:name>
      </domain:update>
    </update>
    <extension>
      <dnsbe:ext xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
        <dnsbe:update>
          <dnsbe:domain>
            <dnsbe:rem>
              <dnsbe:keygroup>mykeygroup</dnsbe:keygroup>
            </dnsbe:rem>
          </dnsbe:domain>
        </dnsbe:update>
      </dnsbe:ext>
      <secDNS:update xmlns:secDNS="urn:ietf:params:xml:ns:secDNS-1.1">
        <secDNS:add>
          <secDNS:keyData>
          <secDNS:flags>257</secDNS:flags>
          <secDNS:protocol>3</secDNS:protocol>
          <secDNS:alg>8</secDNS:alg>

<secDNS:pubKey>AwEAAchObqtQhBlAmwkFeVOjgi3rG3skoTWKOcb7dtnoah1bgpTth6Rkqdp3cQeiHB
cuHD5o6YLRgR03okzZGF15TNewAyzt6lQXJnsFdrDGR9Gcvnqy98SnmyBU/2KXZKkX5GaSJ5WGrz5I9VT
oShdssNbEULcRM38aPtd913PnkfYGYr2g1aPYGPx1NwK36bMNHSbrmZEJDYijPfc/HP2/4Wf74/eUL+q9
55imeukUFQJa+Ufzb+get4RAVRJ9SH3q/nITzCk/6tu8bWuOMn+oZfUaRq4llTKmmQ2ZDGBC3Uk5E++If
KvgIj6yOQhZbY+PLcN3gj8qYqin 213gwynWKm8=</secDNS:pubKey>
          </secDNS:keyData>
        </secDNS:add>
      </secDNS:update>
```

```
    </extension>
    <clTRID>domain-update-add-dnskey-rem-keygroup-00</clTRID>
  </command>
</epp>
```

The server responds:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>domain-update-add-dnskey-rem-keygroup-00</clTRID>
      <svTRID>dnsbe-343016</svTRID>
    </trID>
  </response>
</epp>
```

As DNS Belgium prefers to work with keygroups, the key is removed and the keygroup is added again:

```
<?xml version="1.0" encoding="UTF-8"?>
<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>signeddomain</domain:name>
      </domain:update>
    </update>
    <extension>
      <dnsbe:ext xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
        <dnsbe:update>
          <dnsbe:domain>
            <dnsbe:add>
              <dnsbe:keygroup>mykeygroup</dnsbe:keygroup>
            </dnsbe:add>
          </dnsbe:domain>
        </dnsbe:update>
      </dnsbe:ext>
      <secDNS:update xmlns:secDNS="urn:ietf:params:xml:ns:secDNS-1.1">
        <secDNS:rem>
          <secDNS:keyData>
          <secDNS:flags>257</secDNS:flags>
          <secDNS:protocol>3</secDNS:protocol>
          <secDNS:alg>8</secDNS:alg>

<secDNS:pubKey>AwEAAchObqtQhBlAmwkFeVOjgi3rG3skoTWKOcb7dtnoah1bgpTth6Rkqdp3cQeiHB
cuHD5o6YLRgR03okzZGF15TNewAyzt6lQXJnsFdrDGR9Gcvnqy98SnmyBU/2KXZKkX5GaSJ5WGrz5I9VT
oShdssNbEULcRM38aPtd913PnkfYGYr2g1aPYGPx1NwK36bMNHSbrmZEJDYijPfc/HP2/4Wf74/eUL+q9
55imeukUFQJa+Ufzb+get4RAVRJ9SH3q/nITzCk/6tu8bWuOMn+oZfUaRq4llTKmmQ2ZDGBC3Uk5E++If
KvgIj6yOQhZbY+PLcN3gj8qYqin 213gwynWKm8=</secDNS:pubKey>
          </secDNS:keyData>
         </secDNS:rem>
      </secDNS:update>
    </extension>
    <clTRID>domain-update-rem-dnskey-add-keygroup-00</clTRID>
  </command>
</epp>
```

The server responds:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>domain-update-rem-dnskey-add-keygroup-00</clTRID>
      <svTRID>dnsbe-343017</svTRID>
    </trID>
  </response>
</epp>
```

In some cases, and for all sorts of reasons, registrants may want to prevent a transfer procedure being put in motion for their domain name. To comply with this requirement, DNS Belgium has implemented a 'non-transferable' flag that the current registrar of a domain name can turn on or off in consultation with the registrant. If this flag is turned on, no transfer procedures can be initiated for that particular domain name. The status of the flag can be requested via a "check-domain v2" transaction or via an "info-domain v1 and v2" (when the domain name belongs to you as a registrar). If a transfer is initiated on such a domain name, a hitpoint will be attributed to the registrar.

This feature can be switched on and off on a 'per registrar' base. Blocking transfer on a domain name can potentially be harmful to registrants and other parties. Therefore, any abuse reported will lead to the immediate revocation of this privilege for the registrars involved. We urge registrars to only use this flag in full consent with the registrant.

Adding the 'Prohibited' flag:

```
<?xml version="1.0" encoding="UTF-8"?>
<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.be</domain:name>
       <domain:add>
         <domain:status s="clientTransferProhibited" lang="en" />
       </domain:add>
     </domain:update>
   </update>
   <clTRID>block domain 334</clTRID>
 </command>
</epp>
```

gives:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>block domain 334</clTRID>
      <svTRID>dnsbe-22099557</svTRID>
    </trID>
  </response>
</epp>
```

Removing the 'clientTransferProhibited' flag:

```
<?xml version="1.0" encoding="UTF-8"?>
<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.be</domain:name>
       <domain:rem>
         <domain:status s="clientTransferProhibited" lang="en" />
       </domain:rem>
     </domain:update>
   </update>
   <clTRID>release domain 334</clTRID>
 </command>
</epp>
```

gives:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>release domain 334</clTRID>
      <svTRID>dnsbe-2209958</svTRID>
    </trID>
```

```
  </response>
</epp>
```

DELETE DOMAIN

PURPOSE: to delete a domain name from the .be database.

A deletion of a .be domain can be done with a deletedate. This is the date on which you want the name to be deleted (automatically). If you don't specify a deletedate, or the deletedate is in the past, the name will be deleted on the day of the command. For more information check the general part of these Registration Guidelines under the topic: 'Delete, quarantine and reactivate'.

In case the domain name is under Domain Guard, it won't be possible to delete the domain name. You can see if a domain name is under Domain Guard via an "info-domain v1 and v2" (when the domain name belongs to you as a registrar). If a delete is initiated on such a domain name, a hitpoint will be attributed. The error message you will receive in case of Domain Guard is:

- 2304 (Object status prohibits operation)
- Domain [%s] has invalid status (serverDeleteProhibited)

The delete domain command is composed according to the standard EPP syntax. Some components need further explanation:

- **<domain:name>** is required. Is the domain name to delete, with or without a trailing .be. (see <create> domain for details)
- <**deleteDate**> is required. Is the date when the domain should be deleted. Please be aware that dates in EPP are always in UTC.
- <**overwriteDeleteDate**> is optional. It is possible to reschedule a deletion without first executing an undo-delete for that domain name. The <delete-domain> command works regardless of whether the domain name was already scheduled for deletion. The new time stamp will overwrite the previously specified time stamp. In this case, this flag has to be specified.

Please refer to the examples to see a complete request.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
 <command>
  <delete>
   <domain:delete>
    <domain:name>dom-4-1182438123611</domain:name>
   </domain:delete>
  </delete>
   <extension>
     <dnsbe:ext
         xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
       <dnsbe:delete>
         <dnsbe:domain>
           <dnsbe:deleteDate>2010-10-10T10:10:10.0Z</dnsbe:deleteDate>
         </dnsbe:domain>
       </dnsbe:delete>
     </dnsbe:ext>
   </extension>
  <clTRID>delete-domain-00</clTRID>
 </command>
</epp>
```

When a <delete> command has been processed successfully, the server responds with an EPP response with no <resData> element.

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>delete-domain-00</clTRID>
      <svTRID>dnsbe-345114</svTRID>
```

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

It is also possible to send the <delete> command without a <deleteDate> element.

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
 <command>
  <delete>
   <domain:delete>
    <domain:name>domain-agent0-inuse-3</domain:name>
   </domain:delete>
  </delete>
  <clTRID>delete-domain-00</clTRID>
 </command>
</epp>
```

The following response is sent back:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
 <response>
   <result code="1000">
     <msg>Command completed successfully</msg>
   </result>
   <trID>
     <clTRID>delete-domain-00</clTRID>
     <svTRID>dnsbe-2839</svTRID>
   </trID>
 </response>
</epp>
```

In case you want to change the deletedate:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
 <command>
  <delete>
   <domain:delete>
    <domain:name>dom-4-1182438123611</domain:name>
   </domain:delete>
  </delete>
   <extension>
     <dnsbe:ext
         xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
       <dnsbe:delete>
         <dnsbe:domain>
           <dnsbe:deleteDate>2010-10-10T10:10:10.0Z</dnsbe:deleteDate>
          <dnsbe:overwriteDeleteDate>true</dnsbe:overwriteDeleteDate>
         </dnsbe:domain>
       </dnsbe:delete>
     </dnsbe:ext>
   </extension>
  <clTRID>delete-domain-00</clTRID>
 </command>
</epp>
```

will give as result:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>delete-domain-00</clTRID>
      <svTRID>dnsbe-22099535</svTRID>
    </trID>
  </response>
</epp>
```

UNDELETE DOMAIN

PURPOSE: to undo the scheduled deletion of a domain name.

As a deletion of a domain name can be scheduled with a delete date in the future, this extension is offered to undo the scheduled deletion.

The undelete command is composed according to the standard EPP syntax. Some components need further explanation:

- **<domain:name>** is required. Is the domain name to undelete, with or without a trailing .be. (see <create> domain for details)

Please refer to the examples to see a complete request.

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"
     xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
     xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
                         urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<command>
  <undelete>
    <domain:undelete>
      <domain:name>test-domain.be</domain:name>
    </domain:undelete>
  </undelete>
  <clTRID>clientref-00024</clTRID>
</command>
</epp>
```

When an <undelete> command has been processed successfully, the server responds with an EPP response with no <resData> element.

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>clientref-00024</clTRID>
      <svTRID>dnsbe-2851</svTRID>
    </trID>
  </response>
</epp>
```

When you try to undelete a domain name that doesn't belong to you, the response is:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2304">
      <msg>Object status prohibits operation</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Domain [google] does not belong to you</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>undelete-domain-00</clTRID>
      <svTRID>dnsbe-741902</svTRID>
    </trID>
  </response>
</epp>
```

When you try to undelete a domain name which isn't scheduled for deletion, the response is:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2304">
      <msg>Object status prohibits operation</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Domain [08022008-test] is not scheduled for
delete</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>undelete-domain-00</clTRID>
      <svTRID>dnsbe-741903</svTRID>
    </trID>
  </response>
</epp>
```

Please note that you will receive a hitpoint for the above two errors.

REQUEST AUTHORISATION CODE

PURPOSE: to request an authorisation code to be sent to the registrant.

The command has only two elements:

- **<dnsbe:domainName>** is required. Is the domain name for which you want to send an authorisation code.
- **<dnsbe:url>** is optional. It's a personalised url you can provide, DNS Belgium will add this url to the message that is sent to the registrant.

Examples

Requesting an authorisation code for the domain name 'test':

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <extension>
    <dnsbe:ext xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
      <dnsbe:command>
        <dnsbe:requestAuthCode>
          <dnsbe:domainName>test</dnsbe:domainName>
          <dnsbe:url>http://www.registrar-
website.be/transfer?name=test</dnsbe:url>
        </dnsbe:requestAuthCode>
        <dnsbe:clTRID>request-code-test</dnsbe:clTRID>
      </dnsbe:command>
    </dnsbe:ext>
  </extension>
</epp>
```

When the request is successful, you will receive a success reply with code 1000. A non-exhaustive list of error codes/messages:

- 2001 (Command syntax error), with possible reasons:
- Any error against the syntax
- 2308 (Data management policy violation), with possible reasons:
- domain [$domain] has invalid status (serverTransferprohibited) [HITPOINT]
- domain [$domain] has invalid status [HITPOINT]
- there were already 4 e-mails sent to this registrant for this authorisation code
- 2306 (Parameter value policy error), with possible reasons:
- URL should start with 'http://' or 'https://' [HITPOINT]
- URL is too long (max 500 characters) [HITPOINT]
- invalid domain name [HITPOINT]

A hitpoint will be attributed to the registrar for every error that could have been foreseen.

An example of a response with result code 2308:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2308">
      <msg>Data management policy violation</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>domain [test] has invalid status (serverTransferprohibited)
</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>request-code-test</clTRID>
      <svTRID>dnsbe-525</svTRID>
```

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

TRANSFER DOMAIN

PURPOSE: to transfer a domain to another registrar and/or registrant.

Note: this command can also be used to transfer a domain in status quarantine, see below for more details.

Before continuing you should read more about transfers in the general part of our Registration Guidelines under the topic: 'transfer procedure'.

In case the domain name is under Domain Guard, it won't be possible to transfer the domain name. You can see if a domain name is under Domain Guard via a "check-domain v2". If a transfer is initiated on such a domain name, a hitpoint will be attributed. The error message you will receive in case of Domain Guard is:

- 2308 (Data management policy violation)
- domain [%s] has invalid status (serverTransferProhibited)

The elements and tags that are relevant for DNS Belgium are specified below. Tags that are optional can be omitted without producing an XML parsing error. Some components of the command need further explanation:

- **<transfer op="request">** Is the command tag to request a transfer. The other values for the 'op' attribute are not implemented.
- **<domain:name>** is required. Specifies the domain name to be transferred, with or without a trailing .be.
- **<domain:authInfo>** is required. Contains the authorisation code given to you by the registrant.
- **<domain:period>** is optional. Is the domain validity period. Only accepted values are 1 with unit 'y' (year) and 12 with unit 'm' (month). This element can be removed. When specified, it must be 1 year or 12 months.
- **<transfer>** appears only when attribute op="request". The following block then contains the transfer elements.
- **<dnsbe:registrant>** is required. Specifies the alias of the new registrant of the transferred domain. Instead of specifying the alias, you can specify: **#AUTO#**, in which case the registrant info will be copied from the current registrar.
- **<dnsbe:billing>**, **<dnsbe:tech>**, **<dnsbe:onsite>** are the different contact aliases of the transferred domain. Each contact should belong to the new registrar. (See create domain for information on the meaning of each label)
- **<dnsbe:ns>** is optional. Contains a set of name servers, with or without IP addresses (only needed as glue records).
- **<dnsbe:nsgroup>** is optional. Contains the list of name server groups.
- **<dnsbe:keygroup>** is optional. Contains the list of keygroups.
- **<secDNS:keyData>** is optional. Contains a list of maximum 4 keys. See the <create domain> transaction for information about the required elements.
- **<dnsbe:fromQuarantine>** is optional, should be used when the domain is in quarantine, the value should be 'true'.

Please refer to the examples to see a complete request.

Examples

A correct transfer command for the domain name "test-domain-2":

```
<?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"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-be-1.0.xsd
urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd http://www.dns.be/xml/epp/dnsbe-
1.0 dnsbe-1.0.xsd">
<command>
  <transfer op="request">
    <domain:transfer>
```

```
      <domain:name>test-domain-2.be</domain:name>
      <domain:authInfo>
        <domain:pw>111-222-333-444-555</domain:pw>
      </domain:authInfo>
    </domain:transfer>
  </transfer>
  <extension>
    <dnsbe:ext>
      <dnsbe:transfer>
        <dnsbe:domain>
          <dnsbe:registrant>c25</dnsbe:registrant>
          <dnsbe:billing>c20</dnsbe:billing>
          <dnsbe:tech>c21</dnsbe:tech>
          <dnsbe:ns>
            <domain:hostAttr>
              <domain:hostName>ns1.superdomain.be</domain:hostName>
            </domain:hostAttr>
            <domain:hostAttr>
              <domain:hostName>ns.test.be</domain:hostName>
            </domain:hostAttr>
          </dnsbe:ns>
        </dnsbe:domain>
      </dnsbe:transfer>
    </dnsbe:ext>
  </extension>
  <clTRID>clientref-00025</clTRID>
</command>
</epp>
```

When a <transfer> command has been processed successfully, the server responds with an EPP response with no <resData> element.

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>clientref-00025</clTRID>
      <svTRID>dnsbe-80436</svTRID>
    </trID>
  </response>
</epp>
```

A correct transfer from quarantine 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"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
<command>
  <transfer op="request">
    <domain:transfer>
      <domain:name>transfer-a-domain</domain:name>
      <domain:authInfo>
        <domain:pw>ABCDEF-1234567890</domain:pw>
      </domain:authInfo>
    </domain:transfer>
  </transfer>
  <extension>
    <dnsbe:ext>
      <dnsbe:transfer>
        <dnsbe:domain>
          <dnsbe:registrant>#AUTO#</dnsbe:registrant>
          <dnsbe:billing>c47</dnsbe:billing>
          <dnsbe:tech>c50</dnsbe:tech>
          <dnsbe:ns>
            <domain:hostAttr>
              <domain:hostName>ns1.superdomain.be</domain:hostName>
            </domain:hostAttr>
            <domain:hostAttr>
              <domain:hostName>ns.test.be</domain:hostName>
            </domain:hostAttr>
          </dnsbe:ns>
```

```
        </dnsbe:domain>
        <dnsbe:fromQuarantine>true</dnsbe:fromQuarantine>
      </dnsbe:transfer>
    </dnsbe:ext>
  </extension>
  <clTRID>clientref-00026</clTRID>
</command>
</epp>
```

If an erroneous authorisation code has been entered in the request, the response from the system is as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2306">
      <msg>Parameter value policy error</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>authorisation code is invalid</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>transfer-domain-06</clTRID>
      <svTRID>dnsbe-80440</svTRID>
    </trID>
  </response>
</epp>
```

When you try to transfer a domain name already in your portfolio, and specify the current registrant as the new registrant, you will get an error message:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2308">
      <msg>Data management policy violation</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>New registrant is the same as current registrant</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00025</clTRID>
      <svTRID>dnsbe-80438</svTRID>
    </trID>
  </response>
</epp>
```

A correct transfer request, providing a keygroup:

```
<?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"
     xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
     xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd"
     xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <command>
    <transfer op="request">
      <domain:transfer>
        <domain:name>domain-2-transfer</domain:name>
        <domain:authInfo>
          <domain:pw>111-222-333-444-555</domain:pw>
        </domain:authInfo>
      </domain:transfer>
    </transfer>
    <extension>
      <dnsbe:ext>
```

```
        <dnsbe:transfer>
          <dnsbe:domain>
            <dnsbe:registrant>#auto#</dnsbe:registrant>
            <dnsbe:billing>c80</dnsbe:billing>
            <dnsbe:tech>c81</dnsbe:tech>
            <dnsbe:keygroup>mykeygroup</dnsbe:keygroup>
          </dnsbe:domain>
        </dnsbe:transfer>
      </dnsbe:ext>
    </extension>
    <clTRID>domain-transfer-keygroup-00</clTRID>
  </command>
</epp>
```

The response will be:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>domain-transfer-keygroup-00</clTRID>
      <svTRID>dnsbe-343022</svTRID>
    </trID>
  </response>
</epp>
```

A transfer request can generate the same error messages as a create domain request, additional error codes/messages are:

- 2001 (Command syntax error), with possible messages:
- missing element (e.g. authorisation code is missing)
- 2102 (Unimplemented option)
- When another option than 'request' is used [HITPOINT]
- 2306 (Parameter value policy error), with possible messages:
- authorisation code is invalid
- authorisation code has expired
- invalid domain name [HITPOINT]
- 2308 (Data management policy violation), with possible messages:
- domain [$domain] has invalid status (serverTransferprohibited) [HITPOINT]
- domain [$domain] has invalid status [HITPOINT]
- New registrant is the same as old registrant [HITPOINT]
- Re-using a registrant is not allowed when the domain name is already yours [HITPOINT]

REACTIVATE DOMAIN

PURPOSE: to reactivate a domain name in the registration database after a successful delete operation.

This transaction is used when a domain name was deleted while it was not the intention to do so. The REACTIVATE will re-establish the name in the same state as before the deletion. More information about deletes and reactivates can be read in the general part of these Registration Guidelines under the topic: 'Deletes, quarantine and reactivate'.

The elements and tags that are relevant for DNS Belgium are specified below. Tags that are optional can be omitted without producing an XML parsing error. Some components of the command need further explanation:

- **<domain:name>** is required. It specifies the domain name to reactivate, with or without a trailing .be. (see <create> domain for details)

Please refer to the examples to see a complete request.

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"
     xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
     xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
                urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<command>
  <reactivate>
    <domain:reactivate>
      <domain:name>greatdomain.be</domain:name>
    </domain:reactivate>
  </reactivate>
  <clTRID>clientref-00028</clTRID>
</command>
</epp>
```

When a <reactivate> command has been processed successfully, the server responds with an EPP response with no <resData> element.

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>clientref-00028</clTRID>
      <svTRID>dnsbe-2850</svTRID>
    </trID>
  </response>
</epp>
```

If you try to reactivate a domain name that doesn't belong to you, the response is:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dn
sbe-1.0">
  <response>
    <result code="2304">
      <msg>Object status prohibits operation</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Domain [domain-agent0-quarantine] does not belong to
you</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
```

```
    </extension>
    <trID>
      <clTRID>reactivate-domain-00</clTRID>
      <svTRID>dnsbe-739546</svTRID>
    </trID>
  </response>
</epp>
```

If the domain names isn't in quarantine, the response is:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2304">
      <msg>Object status prohibits operation</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Domain [tfw-create-basic-domain-1330087857844] has invalid
status</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>reactivate-domain-00</clTRID>
      <svTRID>dnsbe-739547</svTRID>
    </trID>
  </response>
</epp>
```

Please note that you will receive a hitpoint for the above two errors.

CHECK DOMAIN

PURPOSE: to check the availability of a domain name.

Registrars can optionally specify a version when using this command. By default, the command uses version 1.0. Version 2.0 returns additional information.

In order to avoid abusive querying, rate-limits have been introduced for the EPP check-domain:

EPP command	Rate limit per 60 seconds per IP
check-domain version 1.0	360
check-domain version 2.0	60

The elements and tags that are relevant for DNS Belgium are specified below. Tags that are optional can be omitted without producing an XML parsing error. Some components of the command need further explanation:

- **<domain:name>** is required once. Is a list of names, with or without the .be, to be checked for availability. You can check the availability of many names at the same time.
- **<dnsbe:domain version="2.0"/>** is optional. When version 2.0 is specified, more information is visible in the answer.

Please refer to the examples to see a complete request.

Examples:

Checking some domains using version 1.0:

```
<?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"
     xmlns:epp="urn:ietf:params:xml:ns:epp-1.0"
     xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
     xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
                urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<command>
  <check>
     <domain:check>
       <domain:name>semaphore.be</domain:name>
       <domain:name>greatdomain.be</domain:name>
       <domain:name>secureshopping.be</domain:name>
       <domain:name>dns-domain-22</domain:name>
       <domain:name>dnà</domain:name>
       <domain:name>xn--belgi-rsa</domain:name>
       <domain:name>$$$</domain:name>
       <domain:name>belgië</domain:name>
    </domain:check>
  </check>
  <clTRID>clientref-00029</clTRID>
</command>
</epp>
```

The server will return:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:chkData>
        <domain:cd>
          <domain:name avail="true">semaphore.be</domain:name>
        </domain:cd>
        <domain:cd>
          <domain:name avail="false">greatdomain.be</domain:name>
        </domain:cd>
        <domain:cd>
          <domain:name avail="true">secureshopping.be</domain:name>
        </domain:cd>
```

```
        <domain:cd>
          <domain:name avail="false">dns-domain-22.be</domain:name>
        </domain:cd>
        <domain:cd>
          <domain:name avail="false">xn--dn-kia.be</domain:name>
        </domain:cd>
        <domain:cd>
          <domain:name avail="true">xn--belgi-rsa.be</domain:name>
        </domain:cd>
        <domain:cd>
          <domain:name avail="false">$$$.be</domain:name>
        </domain:cd>
        <domain:cd>
          <domain:name avail="true">xn--belgi-rsa.be</domain:name>
        </domain:cd>
      </domain:chkData>
    </resData>
    <trID>
      <clTRID>clientref-00029</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Where <**domain:name**> contains an attribute 'avail' with value 'false' when the domain is not available for registration, and value 'true' when the domain name is available at the time of the check.

In the example above, we tested 8 names, 4 of which are available and 4 are not.

A valid command using version 2.0 would look like:

```
<?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"
     xmlns:epp="urn:ietf:params:xml:ns:epp-1.0"
     xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
     xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
                urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<command>
  <check>
     <domain:check>
       <domain:name>semaphore.be</domain:name>
       <domain:name>greatdomain.be</domain:name>
       <domain:name>test-v2.be</domain:name>
       <domain:name>dns-domain-22.be</domain:name>
       <domain:name>dnà</domain:name>
       <domain:name>xn--belgi-rsa</domain:name>
       <domain:name>$$$</domain:name>
       <domain:name>België</domain:name>
    </domain:check>
  </check>
<extension>
  <dnsbe:ext xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
    <dnsbe:check>
      <dnsbe:domain version="2.0"/>
    </dnsbe:check>
  </dnsbe:ext>
</extension>
  <clTRID>clientref-00029</clTRID>
</command>
</epp>
```

giving as result:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:chkData>
        <domain:cd>
```

```
          <domain:name avail="true">semaphore.be</domain:name>
        </domain:cd>
        <domain:cd>
          <domain:name avail="false">greatdomain.be</domain:name>
          <domain:reason lang="en">in use</domain:reason>
        </domain:cd>
        <domain:cd>
          <domain:name avail="false">test-v2.be</domain:name>
          <domain:reason lang="en">quarantine</domain:reason>
        </domain:cd>
        <domain:cd>
          <domain:name avail="false">dns-domain-22.be</domain:name>
          <domain:reason lang="en">in use</domain:reason>
        </domain:cd>
        <domain:cd>
          <domain:name avail="false">xn--dn-kia.be</domain:name>
          <domain:reason lang="en">in use</domain:reason>
        </domain:cd>
        <domain:cd>
          <domain:name avail="true">xn--belgi-rsa.be</domain:name>
        </domain:cd>
        <domain:cd>
          <domain:name avail="false">$$$.be</domain:name>
          <domain:reason  lang="en">invalid_chars_used</domain:reason>
        </domain:cd>
        <domain:cd>
          <domain:name avail="true">xn--belgi-rsa.be</domain:name>
        </domain:cd>
      </domain:chkData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:chkData>
          <dnsbe:domain>
            <dnsbe:cd>
              <dnsbe:name>greatdomain.be</dnsbe:name>
              <dnsbe:availableDate>2010-04-12T16:00:00.000Z
</dnsbe:availableDate>
            </dnsbe:cd>
              <dnsbe:name>test-v2.be</dnsbe:name>
              <dnsbe:availableDate>2009-01-14T13:00:00.000Z
</dnsbe:availableDate>
            </dnsbe:cd>
            <dnsbe:cd>
              <dnsbe:name>dns-domain-22.be</dnsbe:name>
              <dnsbe:status s="clientTransferProhibited"/>
              <dnsbe:status s="serverTransferProhibited"/>
            </dnsbe:cd>
            <dnsbe:cd>
              <dnsbe:name>xn--dn-kia.be</dnsbe:name>
              <dnsbe:status s="serverTransferProhibited"/>
            </dnsbe:cd>
          </dnsbe:domain>
        </dnsbe:chkData>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00029</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

When the attribute 'avail' is false, more information regarding the status of the domain name is added.

The output contains some extra fields:

- **<reason>** contains the reason why the domain name is not available. In case of an invalid domain name, the reason will also state why the domain name is invalid.
- **<availableDate>** contains the date and time in UTC when the name becomes available. This element is only used when the name is in quarantine.
- **<status>** contains all active flags associated with the domain name. Possible values are:

- clientTransferProhibited: the domain name is locked for transfer by the registrar. In case of abuse, this flag may be overruled by the registry.
- serverTransferProhibited: the domain name is locked for transfer by the registry.
- serverUpdateProhibited: the domain name is locked for updates by the registry.
- serverDeleteProhibited: the domain name is locked for delete by the registry.

In case of Domain Guard, all server related flags will be set. In case Domain Guard is temporarily disabled, the serverUpdateProhibited flag will be off, while the other 2 will remain on.

If the registrar has exceeded the rate-limit for check-domain, the server will reply:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2306">
      <msg>Parameter value policy error</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Excessive querying</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>test-overflow</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

INFO DOMAIN

PURPOSE: to retrieve the current information about a domain name.

Registrars can optionally specify a version when using this command. By default, the command uses version 1.0. Version 2.0 returns additional information.

A registrar can only request information about a domain name he is currently managing. Domain names under the management of another registrar will not return any info.

In order to avoid abusive querying, rate-limits have been introduced for the EPP info-domain:

EPP command	Rate limit per 60 seconds per IP
info-domain	180

The elements and tags that are relevant for DNS Belgium are specified below. Tags that are optional can be omitted without producing an XML parsing error. Some components of the command need further explanation:

- **<domain:name>** is the domain name, with or without the .be extension, to get info from; the attribute (default is 'all') is ignored. Only the domains that are 'IN USE' are returned.
- **<dnsbe:domain version="2.0"/>** is optional. When version 2.0 is specified, more information is visible in the answer.
- **<domain:pw>** is optional. If the domain doesn't belong to you, but you know the transfer code, then you can use the transfer code as authorization to view the details of the domain. This is provided so you can check the WHOIS details of the domain before transferring the domain name.

Please refer to the examples to see a complete request.

Examples:

info-domain version 1.0:

```
<?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"
     xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
     xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd
                         urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
<command>
  <info>
    <domain:info>
      <domain:name>dom021</domain:name>
    </domain:info>
  </info>
  <clTRID>clientref-00030</clTRID>
</command>
</epp>
```

When an <info> command has been processed successfully, the EPP <resData> element contains a child element <domain:infData> which contains all information related to the domain:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dom021.be</domain:name>
        <domain:roid>61-DNSBE</domain:roid>
        <domain:status s="ok"/>
        <domain:registrant>c33</domain:registrant>
        <domain:contact type="billing">c32</domain:contact>
        <domain:contact type="tech">c81</domain:contact>
        <domain:clID>t1-dns-be</domain:clID>
        <domain:crID>t1-dns-be</domain:crID>
        <domain:crDate>2006-10-18T07:40:47.000Z</domain:crDate>
```

```
        <domain:upID>t1-dns-be</domain:upID>
        <domain:upDate>2008-12-10T10:24:14.000Z</domain:upDate>
        <domain:exDate>2009-11-03T14:00:14.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:nsgroup>greatserver</dnsbe:nsgroup>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00030</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

- **<domain:name>** Is the domain name currently in process.
- **<domain:roid>** Is the Repository Object IDentifier assigned to the object when the object was created.
- **<domain:status>** Is the current status of the object. If one of the flags 'clientTransferProhibited' or 'serverTransferprohibited' is set, they will be shown here.
- **<domain:registrant>** Is the contact alias of the current registrant.
- **<domain:contact>** Is a list of all contact aliases related to the domain.
- **<domain:ns>** Is a list of all nameservers associated to the domain.
- **<domain:clID>** Is the identifier of the sponsoring registrar.
- **<domain:crID>** Is the identifier of the registrar who created the object. (in the DNS Belgium implementation, this is always the same as clID).
- **<domain:crDate>** Is the UTC date/time of object creation.
- **<domain:upID>** Is the identifier of the client who last updated the object.
- **<domain:upDate>** Is the UTC date/time of the last object update.
- **<domain:exDate>** Is the UTC expiration date/time of the object.
- **<dnsbe:nsgroup>** If the domain is attached to a name server group, it will be listed in the extension.
- **<dnsbe:keygroup>** If the domain is attached to a keygroup, it will be listed in the extension.
- **<secDNS:keyData>** If the domain has keys attached, they will be listed in the extension. The keyData information will only be visible after a login declaring the appropriate extensions.

A valid command using version 2.0 would look like:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
     xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
  <command>
    <info>
      <domain:info>
        <domain:name>dns-domain-22</domain:name>
      </domain:info>
    </info>
    <extension>
      <dnsbe:ext xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
        <dnsbe:info>
          <dnsbe:domain version="2.0"/>
        </dnsbe:info>
      </dnsbe:ext>
    </extension>
  </command>
</epp>
```

The response is:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dns-domain-22.be</domain:name>
        <domain:roid>15601-DNSBE</domain:roid>
        <domain:status s="clientTransferProhibited"/>
        <domain:status s="serverTransferProhibited"/>
        <domain:registrant>c26511</domain:registrant>
        <domain:contact type="billing">c80</domain:contact>
        <domain:contact type="tech">c182</domain:contact>
        <domain:clID>t1-dns-be</domain:clID>
        <domain:crID>t1-dns-be</domain:crID>
        <domain:crDate>2008-11-19T15:05:24.000Z</domain:crDate>
        <domain:upID>t1-dns-be</domain:upID>
        <domain:upDate>2008-12-10T09:54:36.000Z</domain:upDate>
        <domain:exDate>2009-11-19T16:00:01.000Z</domain:exDate>
        <domain:trDate>2008-11-19T16:00:01.000Z</domain:trDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:onhold>false</dnsbe:onhold>
            <dnsbe:quarantined>false</dnsbe:quarantined>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

The output contains some extra fields:

- **<onhold>** with possible values true and false. "True" indicates that the name is on hold (an ADR or court case is pending for this domain name).
- <**quarantined**> with possible values true and false. "True" indicates that the domain name is currently in quarantine.
- <**deletionDate**> containing the UTC date and time when a domain name that is in quarantine will be deleted (put in quarantine).

The appearance of a field in the output depends on the situation of the domain name. The different possibilities can be found in the examples below.

A valid command using a correct transfer code would look like:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp
xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
 <command>
  <info>
   <domain:info>
    <domain:name>peer</domain:name>
       <domain:authInfo>
         <domain:pw>156-028-382-047-710</domain:pw>
       </domain:authInfo>
   </domain:info>
  </info>
  <clTRID>info-domain-00</clTRID>
 </command>
</epp>
```

Example: Domain name is IN USE and belongs to the querying registrar.

Version 2.0 shows whether a domain name is ON HOLD or not, and whether a domain name is quarantined or not.

(version 1.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dom-0-1182527393111.be</domain:name>
        <domain:roid>390-DNSBE</domain:roid>
        <domain:status s="ok"/>
        <domain:registrant>c340</domain:registrant>
        <domain:contact type="billing">c100003</domain:contact>
        <domain:contact type="onsite">c339</domain:contact>
        <domain:clID>a100000</domain:clID>
        <domain:crID>a100000</domain:crID>
        <domain:crDate>2007-06-22T15:49:55.000Z</domain:crDate>
        <domain:upID>a100000</domain:upID>
        <domain:upDate>2007-06-22T15:49:55.000Z</domain:upDate>
        <domain:exDate>2008-06-22T15:49:55.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:nsgroup>nsg-1182527394333</dnsbe:nsgroup>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

(version 2.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dom-0-1182527393111.be</domain:name>
        <domain:roid>390-DNSBE</domain:roid>
        <domain:status s="ok"/>
        <domain:registrant>c340</domain:registrant>
        <domain:contact type="billing">c100003</domain:contact>
        <domain:contact type="onsite">c339</domain:contact>
        <domain:clID>a100000</domain:clID>
        <domain:crID>a100000</domain:crID>
        <domain:crDate>2007-06-22T15:49:55.000Z</domain:crDate>
        <domain:upID>a100000</domain:upID>
        <domain:upDate>2007-06-22T15:49:55.000Z</domain:upDate>
        <domain:exDate>2008-06-22T15:49:55.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:nsgroup>nsg-1182527394333</dnsbe:nsgroup>
```

```
            <dnsbe:onhold>false</dnsbe:onhold>
            <dnsbe:quarantined>false</dnsbe:quarantined>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Example: Domain name is IN USE, belongs to the querying registrar and is scheduled for deletion.

Version 2.0 also specifies the deletion date (in UTC) if there is one.

(version 1.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dom-1-1182527393111.be</domain:name>
        <domain:roid>391-DNSBE</domain:roid>
        <domain:status s="ok"/>
        <domain:registrant>c340</domain:registrant>
        <domain:contact type="billing">c100003</domain:contact>
        <domain:contact type="onsite">c339</domain:contact>
        <domain:clID>a100000</domain:clID>
        <domain:crID>a100000</domain:crID>
        <domain:crDate>2007-06-22T15:49:55.000Z</domain:crDate>
        <domain:upID>a100000</domain:upID>
        <domain:upDate>2007-06-22T15:49:55.000Z</domain:upDate>
        <domain:exDate>2008-06-22T15:49:55.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:nsgroup>nsg-1182527394333</dnsbe:nsgroup>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

(version 2.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dom-1-1182527393111.be</domain:name>
        <domain:roid>391-DNSBE</domain:roid>
        <domain:status s="ok"/>
        <domain:registrant>c340</domain:registrant>
        <domain:contact type="billing">c100003</domain:contact>
        <domain:contact type="onsite">c339</domain:contact>
        <domain:clID>a100000</domain:clID>
        <domain:crID>a100000</domain:crID>
```

```
        <domain:crDate>2007-06-22T15:49:55.000Z</domain:crDate>
        <domain:upID>a100000</domain:upID>
        <domain:upDate>2007-06-22T15:49:55.000Z</domain:upDate>
        <domain:exDate>2008-06-22T15:49:55.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:nsgroup>nsg-1182527394333</dnsbe:nsgroup>
            <dnsbe:onhold>false</dnsbe:onhold>
            <dnsbe:quarantined>false</dnsbe:quarantined>
            <dnsbe:deletionDate>2007-06-22T21:00:00.000Z</dnsbe:deletionDate>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Example: Domain is in QUARANTINE and belongs to the querying registrar.

Version 2.0 shows when the domain name will be available (in UTC).

(version 1.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dom-1-1182527393111.be</domain:name>
        <domain:roid>64857-DNSBE</domain:roid>
        <domain:status s="ok"/>
        <domain:registrant>c113598</domain:registrant>
        <domain:contact type="billing">c80</domain:contact>
        <domain:contact type="tech">c182</domain:contact>
        <domain:clID>t1-dns-be</domain:clID>
        <domain:crID>t1-dns-be</domain:crID>
        <domain:crDate>2010-08-18T09:12:09.000Z</domain:crDate>
        <domain:upID>t1-dns-be</domain:upID>
        <domain:upDate>2010-08-18T09:12:09.000Z</domain:upDate>
        <domain:exDate>2011-08-18T09:12:09.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:nsgroup>greatserver</dnsbe:nsgroup>
            <dnsbe:keygroup>mykeygroup</dnsbe:keygroup>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00030</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

(version 2.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
```

```
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dom-2-1182527393111.be</domain:name>
        <domain:roid>392-DNSBE</domain:roid>
        <domain:status s="ok"/>
        <domain:registrant>c340</domain:registrant>
        <domain:contact type="billing">c100003</domain:contact>
        <domain:contact type="onsite">c339</domain:contact>
        <domain:clID>a100000</domain:clID>
        <domain:crID>a100000</domain:crID>
        <domain:crDate>2007-06-22T15:49:55.000Z</domain:crDate>
        <domain:upID>a100000</domain:upID>
        <domain:upDate>2007-06-22T15:49:55.000Z</domain:upDate>
        <domain:exDate>2008-06-22T15:49:55.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:nsgroup>nsg-1182527394333</dnsbe:nsgroup>
            <dnsbe:onhold>false</dnsbe:onhold>
            <dnsbe:quarantined>true</dnsbe:quarantined>
            <dnsbe:availableDate>2007-06-23T15:49:58.000Z</dnsbe:availableDate>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Example: Domain is ON HOLD and belongs to the querying registrar.

Version 2.0 shows the domain is ON HOLD

(version 1.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dom-3-1182527393111.be</domain:name>
        <domain:roid>118-DNSBE</domain:roid>
        <domain:status s="ok"/>
        <domain:registrant>c8854</domain:registrant>
        <domain:contact type="billing">c80</domain:contact>
        <domain:contact type="tech">c81</domain:contact>
        <domain:ns>
          <domain:hostAttr>
            <domain:hostName>ns.hostingcompany.be</domain:hostName>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>ns.davegoelen.be</domain:hostName>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>ns.veerle.be</domain:hostName>
          </domain:hostAttr>
        </domain:ns>
        <domain:clID>t1-dns-be</domain:clID>
        <domain:crID>t1-dns-be</domain:crID>
        <domain:crDate>2006-10-23T14:03:48.000Z</domain:crDate>
        <domain:upID>t1-dns-be</domain:upID>
        <domain:upDate>2007-11-13T14:08:38.000Z</domain:upDate>
```

```
        <domain:exDate>2010-10-23T14:03:48.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:nsgroup>old-ns</dnsbe:nsgroup>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00030</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

(version 2.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dom-3-1182527393111.be</domain:name>
        <domain:roid>393-DNSBE</domain:roid>
        <domain:status s="ok"/>
        <domain:registrant>c340</domain:registrant>
        <domain:contact type="billing">c100003</domain:contact>
        <domain:contact type="onsite">c339</domain:contact>
        <domain:clID>a100000</domain:clID>
        <domain:crID>a100000</domain:crID>
        <domain:crDate>2007-06-22T15:49:55.000Z</domain:crDate>
        <domain:upID>a100000</domain:upID>
        <domain:upDate>2007-06-22T15:49:55.000Z</domain:upDate>
        <domain:exDate>2008-06-22T15:49:55.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:nsgroup>nsg-1182527394333</dnsbe:nsgroup>
            <dnsbe:onhold>true</dnsbe:onhold>
            <dnsbe:quarantined>false</dnsbe:quarantined>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Example: Domain is IN USE and belongs to a registrar other than the querying registrar.

No additional information is given, no difference with version 1.0.

(version 1.0) (version 2.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="2201">
      <msg>Authorization error</msg>
    </result>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
```

```
  </response>
</epp>
```

Example: Domain is ON HOLD and belongs to a registrar other than the querying registrar.

No additional information is given, no difference with version 1.0.

(version 1.0) (version 2.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="2201">
      <msg>Authorization error</msg>
    </result>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Example: Domain is under Domain Guard.

The same information is given in version 1.0 and version 2.0.

(version 1.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dns.be</domain:name>
        <domain:roid>1-DNSBE</domain:roid>
        <domain:status s="serverTransferProhibited"/>
        <domain:status s="serverUpdateProhibited"/>
        <domain:status s="serverDeleteProhibited"/>
        <domain:registrant>c11</domain:registrant>
        <domain:contact type="billing">c13</domain:contact>
        <domain:contact type="tech">c12</domain:contact>
        <domain:ns>
          <domain:hostAttr>
            <domain:hostName>prague.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">195.47.235.138</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>a.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">193.109.126.140</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>c.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">195.22.139.135</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>amsterdam.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">91.200.16.101</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>london.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">195.66.241.90</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>x.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">194.0.1.10</domain:hostAddr>
          </domain:hostAttr>
        </domain:ns>
        <domain:clID>s1-dns-be</domain:clID>
        <domain:crID>s1-dns-be</domain:crID>
        <domain:crDate>2008-10-29T16:12:13.000Z</domain:crDate>
        <domain:upID>s1-dns-be</domain:upID>
```

```
        <domain:upDate>2010-08-17T10:01:33.000Z</domain:upDate>
        <domain:exDate>2013-10-29T16:12:13.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:keygroup>group-for-dnsbe</dnsbe:keygroup>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00030</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

(version 2.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dns.be</domain:name>
        <domain:roid>1-DNSBE</domain:roid>
        <domain:status s="serverTransferProhibited"/>
        <domain:status s="serverUpdateProhibited"/>
        <domain:status s="serverDeleteProhibited"/>
<domain:registrant>c11</domain:registrant>
        <domain:contact type="billing">c13</domain:contact>
        <domain:contact type="tech">c12</domain:contact>
        <domain:ns>
          <domain:hostAttr>
            <domain:hostName>prague.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">195.47.235.138</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>a.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">193.109.126.140</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>c.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">195.22.139.135</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>amsterdam.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">91.200.16.101</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>london.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">195.66.241.90</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>x.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">194.0.1.10</domain:hostAddr>
          </domain:hostAttr>
        </domain:ns>
        <domain:clID>s1-dns-be</domain:clID>
        <domain:crID>s1-dns-be</domain:crID>
        <domain:crDate>2008-10-29T16:12:13.000Z</domain:crDate>
        <domain:upID>s1-dns-be</domain:upID>
        <domain:upDate>2010-08-17T10:01:33.000Z</domain:upDate>
        <domain:exDate>2013-10-29T16:12:13.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
```

```
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:keygroup>group-for-dnsbe</dnsbe:keygroup>
            <dnsbe:onhold>false</dnsbe:onhold>
            <dnsbe:quarantined>false</dnsbe:quarantined>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Example: Domain is under Domain Guard, but Domain Guard is temporarily disabled.

The same information is given in version 1.0 and version 2.0.

(version 1.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dns.be</domain:name>
        <domain:roid>1-DNSBE</domain:roid>
        <domain:status s="serverTransferProhibited"/>
        <domain:status s="serverDeleteProhibited"/>
        <domain:registrant>c11</domain:registrant>
        <domain:contact type="billing">c13</domain:contact>
        <domain:contact type="tech">c12</domain:contact>
        <domain:ns>
          <domain:hostAttr>
            <domain:hostName>prague.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">195.47.235.138</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>a.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">193.109.126.140</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>c.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">195.22.139.135</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>amsterdam.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">91.200.16.101</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>london.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">195.66.241.90</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>x.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">194.0.1.10</domain:hostAddr>
          </domain:hostAttr>
        </domain:ns>
        <domain:clID>s1-dns-be</domain:clID>
        <domain:crID>s1-dns-be</domain:crID>
        <domain:crDate>2008-10-29T16:12:13.000Z</domain:crDate>
        <domain:upID>s1-dns-be</domain:upID>
        <domain:upDate>2010-08-17T10:01:33.000Z</domain:upDate>
        <domain:exDate>2013-10-29T16:12:13.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
```

```
            <dnsbe:keygroup>group-for-dnsbe</dnsbe:keygroup>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>clientref-00030</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

(version 2.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dns.be</domain:name>
        <domain:roid>1-DNSBE</domain:roid>
        <domain:status s="serverTransferProhibited"/>
        <domain:status s="serverDeleteProhibited"/>
<domain:registrant>c11</domain:registrant>
        <domain:contact type="billing">c13</domain:contact>
        <domain:contact type="tech">c12</domain:contact>
        <domain:ns>
          <domain:hostAttr>
            <domain:hostName>prague.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">195.47.235.138</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>a.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">193.109.126.140</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>c.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">195.22.139.135</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>amsterdam.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">91.200.16.101</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>london.ns.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">195.66.241.90</domain:hostAddr>
          </domain:hostAttr>
          <domain:hostAttr>
            <domain:hostName>x.dns.be</domain:hostName>
            <domain:hostAddr ip="v4">194.0.1.10</domain:hostAddr>
          </domain:hostAttr>
        </domain:ns>
        <domain:clID>s1-dns-be</domain:clID>
        <domain:crID>s1-dns-be</domain:crID>
        <domain:crDate>2008-10-29T16:12:13.000Z</domain:crDate>
        <domain:upID>s1-dns-be</domain:upID>
        <domain:upDate>2010-08-17T10:01:33.000Z</domain:upDate>
        <domain:exDate>2013-10-29T16:12:13.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:keygroup>group-for-dnsbe</dnsbe:keygroup>
            <dnsbe:onhold>false</dnsbe:onhold>
            <dnsbe:quarantined>false</dnsbe:quarantined>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
```

```
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Example: Rate limiting exceeded for info-domain:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2306">
      <msg>Parameter value policy error</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Excessive querying</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>test-overflow</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Example: Domain name is IN USE, but is revoked due to fraudulent activities.

(version 2.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>testdomain.be</domain:name>
        <domain:roid>6208625-DNSBE</domain:roid>
        <domain:status s="ok"/>
        <domain:registrant>c7780601</domain:registrant>
        <domain:contact type="billing">c7780583</domain:contact>
        <domain:contact type="tech">c7780581</domain:contact>
        <domain:clID>a000001</domain:clID>
        <domain:crID>a000001</domain:crID>
        <domain:crDate>2010-06-22T13:06:41.000Z</domain:crDate>
        <domain:upID>a000001</domain:upID>
        <domain:upDate>2010-06-24T12:09:24.000Z</domain:upDate>
        <domain:exDate>2011-06-24T12:09:24.000Z</domain:exDate>
        <domain:trDate>2010-06-24T12:09:24.000Z</domain:trDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:onhold>false</dnsbe:onhold>
            <dnsbe:quarantined>false</dnsbe:quarantined>
            <dnsbe:nameserversOverridden>true</dnsbe:nameserversOverridden>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Version 2.0 specifies that the nameservers have been overriden, i.e. the domain will not appear in the .be zone file. This field is only shown when it has the value 'true'.

Example: After login without declaring the secDNS extension, info-domain doesn't return secDNS information.

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>mysigneddomain.be</domain:name>
        <domain:roid>64851-DNSBE</domain:roid>
        <domain:status s="ok"/>
        <domain:registrant>c104153</domain:registrant>
        <domain:contact type="billing">c80</domain:contact>
        <domain:contact type="tech">c81</domain:contact>
        <domain:clID>t1-dns-be</domain:clID>
        <domain:crID>t1-dns-be</domain:crID>
        <domain:crDate>2010-08-06T12:03:48.000Z</domain:crDate>
        <domain:upID>t1-dns-be</domain:upID>
        <domain:upDate>2010-08-06T12:03:48.000Z</domain:upDate>
        <domain:exDate>2011-08-06T12:03:48.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain/>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Example: When declaring the secDNS extension at login, more information is shown. There is no difference between version 1.0 and version 2.0 concerning secDNS information.

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:secDNS="urn:ietf:params:xml:ns:secDNS-1.1"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>mysigneddomain.be</domain:name>
        <domain:roid>64851-DNSBE</domain:roid>
        <domain:status s="ok"/>
        <domain:registrant>c104153</domain:registrant>
        <domain:contact type="billing">c80</domain:contact>
        <domain:contact type="tech">c81</domain:contact>
        <domain:clID>t1-dns-be</domain:clID>
        <domain:crID>t1-dns-be</domain:crID>
        <domain:crDate>2010-08-06T12:03:48.000Z</domain:crDate>
        <domain:upID>t1-dns-be</domain:upID>
        <domain:upDate>2010-08-06T12:03:48.000Z</domain:upDate>
        <domain:exDate>2011-08-06T12:03:48.000Z</domain:exDate>
      </domain:infData>
    </resData>
    <extension>
      <secDNS:infData>
        <secDNS:keyData>
          <secDNS:flags>257</secDNS:flags>
```

```
          <secDNS:protocol>3</secDNS:protocol>
          <secDNS:alg>8</secDNS:alg>

<secDNS:pubKey>AwEAAchObqtQhBlAmwkFeVOjgi3rG3skoTWKOcb7dtnoah1bgpTth6Rkqdp3cQeiHB
cuHD5o6YLRgR03okzZGF15TNewAyzt6lQXJnsFdrDGR9Gcvnqy98SnmyBU/2KXZKkX5GaSJ5WGrz5I9VT
oShdssNbEULcRM38aPtd913PnkfYGYr2g1aPYGPx1NwK36bMNHSbrmZEJDYijPfc/HP2/4Wf74/eUL+q9
55imeukUFQJa+Ufzb+get4RAVRJ9SH3q/nITzCk/6tu8bWuOMn+oZfUaRq4llTKmmQ2ZDGBC3Uk5E++If
KvgIj6yOQhZbY+PLcN3gj8qYqin213gwynWKm8=</secDNS:pubKey>
        </secDNS:keyData>
      </secDNS:infData>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain/>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Example: info-domain for a domain with a keygroup.

(version 2.0)

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      <domain:infData>
        <domain:name>dns-domain-22.be</domain:name>
        <domain:roid>15601-DNSBE</domain:roid>
        <domain:status s="clientTransferProhibited"/>
        <domain:status s="serverTransferProhibited"/>
        <domain:status s="ok"/>
        <domain:registrant>c26511</domain:registrant>
        <domain:contact type="billing">c80</domain:contact>
        <domain:contact type="tech">c182</domain:contact>
        <domain:clID>t1-dns-be</domain:clID>
        <domain:crID>t1-dns-be</domain:crID>
        <domain:crDate>2008-11-19T15:05:24.000Z</domain:crDate>
        <domain:upID>t1-dns-be</domain:upID>
        <domain:upDate>2010-08-11T08:50:06.000Z</domain:upDate>
        <domain:exDate>2010-11-19T16:00:01.000Z</domain:exDate>
        <domain:trDate>2008-11-19T16:00:01.000Z</domain:trDate>
      </domain:infData>
    </resData>
    <extension>
      <dnsbe:ext>
        <dnsbe:infData>
          <dnsbe:domain>
            <dnsbe:keygroup>mykeygroup</dnsbe:keygroup>
            <dnsbe:onhold>false</dnsbe:onhold>
            <dnsbe:quarantined>false</dnsbe:quarantined>
          </dnsbe:domain>
        </dnsbe:infData>
      </dnsbe:ext>
    </extension>
    <trID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Example: info-domain for the domain dns.be which has IPv6 nameservers.

(version 2.0)

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

```
xmlns:secDNS="urn:ietf:params:xml:ns:secDNS-1.1"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
 <response>
 <result code="1000">
 <msg>Command completed successfully</msg>
 </result>
 <resData>
 <domain:infData>
 <domain:name>dns.be</domain:name>
 <domain:roid>287088-DNSBE</domain:roid>
 <domain:status s="clientTransferProhibited"/>
 <domain:status s="serverTransferProhibited"/>
 <domain:status s="ok"/>
 <domain:registrant>mvw70</domain:registrant>
 <domain:contact type="billing">zzzz2</domain:contact>
 <domain:contact type="tech">dbts2</domain:contact>
 <domain:ns>
 <domain:hostAttr>
 <domain:hostName>c.ns.dns.be</domain:hostName>
 <domain:hostAddr ip="v4">195.22.139.135</domain:hostAddr>
 </domain:hostAttr>
 <domain:hostAttr>
 <domain:hostName>amsterdam.ns.dns.be</domain:hostName>
 <domain:hostAddr ip="v4">91.200.16.101</domain:hostAddr>
 </domain:hostAttr>
 <domain:hostAttr>
 <domain:hostName>brussels.ns.dns.be</domain:hostName>
 <domain:hostAddr ip="v4">193.190.135.4</domain:hostAddr>
 <domain:hostAddr ip="v6">2001:6a8:3c60:0:0:0:0:be</domain:hostAddr>
 </domain:hostAttr>
 <domain:hostAttr>
 <domain:hostName>london.ns.dns.be</domain:hostName>
 <domain:hostAddr ip="v4">195.66.241.90</domain:hostAddr>
 </domain:hostAttr>
 <domain:hostAttr>
 <domain:hostName>prague.ns.dns.be</domain:hostName>
 <domain:hostAddr ip="v4">195.47.235.138</domain:hostAddr>
 </domain:hostAttr>
 <domain:hostAttr>
 <domain:hostName>m.ns.dns.be</domain:hostName>
 <domain:hostAddr ip="v4">194.0.6.1</domain:hostAddr>
 </domain:hostAttr>
 </domain:ns>
 <domain:clID>dns-be-registry</domain:clID>
 <domain:crID>dns-be-registry</domain:crID>
 <domain:crDate>1995-12-31T23:00:00.000Z</domain:crDate>
 <domain:upID>dns-be-registry</domain:upID>
 <domain:upDate>2011-06-30T09:26:54.000Z</domain:upDate>
 <domain:exDate>2012-06-19T22:00:00.000Z</domain:exDate>
 <domain:trDate>2002-04-03T14:01:23.000Z</domain:trDate>
 </domain:infData>
 </resData>
 <extension>
 <secDNS:infData>
 <secDNS:keyData>
 <secDNS:flags>257</secDNS:flags>
 <secDNS:protocol>3</secDNS:protocol>
 <secDNS:alg>8</secDNS:alg>

<secDNS:pubKey>AwEAAd6JD2RRpzwTuK7WlfP39CWTLDtwQmKR7JdyvgVHt5yw7VoDlWCknAmlPVelzc
FAnIC/YQ2OMfm23MGiohW7iyoRxyrciMMGzKQ/AIUKFMKv9/ghqFYbdXVN3H8lDkBaI7oiA3rPsBD15J2
UnUf/LKIidqQU+L4aHy0/KatMqEIS9brJWNg5Bfu+F+eU8H0vQSV8uH6bs1t35QddmfO3jrKme5wq+Raf
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 <secDNS:keyData>
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 <secDNS:alg>8</secDNS:alg>

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 </secDNS:keyData>
```

```
 </secDNS:infData>
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 <dnsbe:infData>
 <dnsbe:domain>
 <dnsbe:onhold>false</dnsbe:onhold>
 <dnsbe:quarantined>false</dnsbe:quarantined>
 </dnsbe:domain>
 </dnsbe:infData>
 </dnsbe:ext>
 </extension>
 <trID>
 <clTRID>info-domain-v2-00</clTRID>
 <svTRID>dnsbe-0</svTRID>
 </trID>
 </response>
</epp>
```

POLL

PURPOSE: Allow registrars to pick up messages from the EPP server asynchronously.

The EPP Poll command is described in RFC4930. It's an alternative to the CPS e-mail system. CPS e-mails are sent immediately when an action occurs. The EPP Poll command allows registrars to pick up the same messages asynchronously from the EPP server.

The registrar must enable EPP messages before he can start using EPP Poll. This can be done via the registrar website (see part III of these Registration Guidelines).

When registrars update their profile to enable EPP Poll, all system-generated notifications will be kept in a queue. When the queue is non-empty, an EPP poll request will always retrieve the oldest message in the queue. After successfully retrieving the first message on the queue, the registrar must acknowledge the message to remove it from the queue and be able to receive the next message. After 24 hours, messages that aren't acknowledged will be automatically removed from the queue and result in a CPS e-mail.

After a successful <poll> request with op="req" from the registrar, the DNS Belgium server will send a reply containing a message counter, a server-unique message identifier and the first message from the queue. In case the message queue is empty, the server will reply that there are no messages pending.

Each message sent from the DNS Belgium server must be acknowledged by the registrar by sending an "ack" request containing the server-unique ID of the message that is being acknowledged.

After receiving the acknowledgement from the registrar, the DNS Belgium server will send a reply confirming the registrar's acknowledgement and indicating the new number of messages in the queue.

This method can be used to iterate through all pending messages.

The system makes sure that all messages can only be acknowledged once, regardless of the chosen channel. If pending messages aren't acknowledged within 24 hours, the DNS Belgium system will delete them from the queue and send them as CPS e-mails.

Rate limits are used for EPP poll: the registrar can do 60 <poll> requests per minute/IP. However, an exception has been made for acknowledging messages. Whenever a message is successfully acknowledged, the quota for <poll> requests is reset. This allows for a fast, automatic retrieval and processing of messages without abusing the system.

The poll command is composed according to the standard EPP syntax. Some components need further explanation:

- **<poll op="req"/>** Is the command tag to request the first message from the queue.
- **<poll op ="ack" msgID="ID">** is the command tag to acknowledge a message from the registration system. "ID" should contain the value of the "id" attribute in the message that is being acknowledged.

Please refer to the examples to see a complete request.

Examples:

A <poll> request for messages looks like:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <command>
    <poll op="req"/>
    <clTRID>ABC-12345</clTRID>
  </command>
</epp>
```

When the registrar has no new messages, the server replies with:

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

```
  <response>
    <result code="1300">
      <msg>Command completed successfully; no messages</msg>
    </result>
    <trID>
      <clTRID>ABC-12345</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

When the registrar has some messages, the server replies with:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
     xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="1301">
      <msg>Command completed successfully; ack to dequeue</msg>
    </result>
    <msgQ count="3" id="441">
      <qDate>2011-09-07T09:44:43.014Z</qDate>
      <msg>Contact is now being monitored</msg>
    </msgQ>
    <resData>
      <dnsbe:pollRes>
        <dnsbe:action>READY</dnsbe:action>
        <dnsbe:contact>c100000</dnsbe:contact>
        <dnsbe:date>2011-09-07T09:44:43.000Z</dnsbe:date>
        <dnsbe:returncode>1501</dnsbe:returncode>
        <dnsbe:type>MONITORED_UPD_CONTACT</dnsbe:type>
      </dnsbe:pollRes>
    </resData>
    <trID>
      <clTRID>ABC-12345</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

The reply will always contain the following information:

- **<msgQ count>** Contains the number of messages waiting in the queue and the unique identifier (id) of the message that is returned in this response. In this example, we see there are 3 messages in the queue and the id of the message included in this response is 441.
- **<qDate>** contains the date and time the message was queued in UTC time.
- **<dnsbe:action>** contains the action done for this particular contact or domain. All possible actions can be found in the part IV of these Registration Guidelines.
- **<dnsbe:returncode>** contains the return code for this particular contact or domain. All possible return codes can be found in the part IV of these Registration Guidelines.
- **<dnsbe:type>** contains the transaction type concerned. All possible types can be found in the part IV of these Registration Guidelines.

Depending on the purpose of message, the reply might also contain:

- **<dnsbe:contact>** is the contact concerned in the message.
- **<dnsbe:domainname>** is the domain name concerned in the message.
- **<dnsbe:date>** is the relevant date in UTC time.
- **<dnsbe:email>** is the relevant e-mail address.
- **<dnsbe:level>** is the relevant watermark level.

The server will keep returning the same message until it has been acknowledged:

```
<?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>
```

After receiving an acknowledgement, the server replies with:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <msgQ count="2" id="149"/>
    <trID>
      <clTRID>ABC-12346</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

Indicating there are more messages in the queue. Once the last message has been acknowledged, the server will reply with:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1300">
      <msg>Command completed successfully; no messages</msg>
    </result>
    <trID>
      <clTRID>ABC-12346</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

When a registrar acknowledges a message again, or when he acknowledges the wrong message, the server replies with:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2002">
      <msg>Command use error</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
         <dnsbe:msg>No poll acknowledgement expected for the specified
id</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>ABC-12346</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

If the registrar didn't enable EPP poll in his notification profile, the server will reply with:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2201">
      <msg>Authorization error</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Authorization error</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>ABC-12346</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
```

```
</epp>
```

When the registrar exceeds the quota for the poll request, the server replies with:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2306">
      <msg>Parameter value policy error</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>Excessive querying</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>ABC-12345</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

A poll request with op=”req” and a msgID will return a syntax error:

```
<?xml version="1.0" encoding="UTF-8"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
xmlns:dnsbe="http://www.dns.be/xml/epp/dnsbe-1.0">
  <response>
    <result code="2001">
      <msg>Command syntax error</msg>
    </result>
    <extension>
      <dnsbe:ext>
        <dnsbe:result>
          <dnsbe:msg>no msgID allowed when op=req</dnsbe:msg>
        </dnsbe:result>
      </dnsbe:ext>
    </extension>
    <trID>
      <clTRID>ABC-12345</clTRID>
      <svTRID>dnsbe-0</svTRID>
    </trID>
  </response>
</epp>
```

.be

RENEW

The EPP protocol contains the possibility to renew the right of use of a domain name. As the renewal is automatic in .be, this command is not implemented.

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