Protocol and transport [1]

This section describes the open protocol used in communication between DNSSHIM and its clients. This protocol is carried over TCP using TLS. The following sections describes all suported commands.

1 AddRecord

Adds a Resource Record from the zone.

1.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <addRr>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
      <rr>
        <ownername>$ownername</ownername>
        <ttl>$ttl</ttl>
        <type>$type</type>
        <dnsClass>$dnsClass</dnsClass>
        <rdata>$rdata</rdata>
      </rr>
    </addRr>
  </request>
</dnsshim>
```

1.1.1 Parameters

$sessionId: Identification of the user.

$zone: The zone to be published.

$ownername: Ownername of the record being added (default is the apex).

$ttl: TTL (*Time to Life*) of the record.

$type: Type of the record.

$dnsClass: Class of the record.

$rdata: RDATA of the record in presentation format.

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[1]Version: *Rev* : 1354

1.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

1.2.1 Parameters

$status: See status code list (A.1).

2 AddSlave

Adds a slave nameserver to and from a slavegroup.

2.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <addSlave>
      <sessionId>$sessionId</sessionId>
      <slaveGroup>$slaveGroup</slaveGroup>
      <slave>$slave</slave>
      <port>$port</port>
    </addSlave>
  </request>
</dnsshim>
```

2.1.1 Parameters

$sessionId: Identification of the user.
$slaveGroup: Name of the slavegroup.
$slave: Host IP address.
$port: Port number on the slave.

2.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
```

```
    </response>
</dnsshim>
```

2.2.1 Parameters

    $status: See status code list (A.1).

3 AddUser

Creates a new user.

3.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <addUser>
      <username>$username</username>
      <password>$password</password>
    </addUser>
  </request>
</dnsshim>
```

3.1.1 Parameters

    $username: Identification of the user.

    $password: The user's password (The use of some cryptographic algorithm is recommended).

3.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <msg>$message</msg>
  </response>
</dnsshim>
```

3.2.1 Parameters

    $status: See status code list.

    $message: Message that describes the status code.

4 AddZoneUser

4.1 Request

```xml
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <addZoneUser>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
      <username>$username</username>
    </addZoneUser>
  </request>
</dnsshim>
```

4.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone.

$username: Identification of the user.

4.2 Response

```xml
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <msg>$message</msg>
  </response>
</dnsshim>
```

4.2.1 Parameters

$status: See status code list (A.1).

$message: Message that describes the status code.

5 AssignSlavegroup

Assigns a slavegroup to and from a zone.

5.1 Request

```xml
<dnsshim version="1.0">
  <request>
```

```
    <assignSlaveGroup>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
      <slaveGroup>$slaveGroup</slaveGroup>
    </assignSlaveGroup>
  </request>
</dnsshim>
```

5.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone.

$slaveGroup: Name of the slavegroup.

5.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <msg>$message</msg>
  </response>
</dnsshim>
```

5.2.1 Parameters

$status: See status code list (A.1).

$message: Message that describes the status code.

6 ChangePassword

Changes the password for user *username*.

6.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <changePassword>
      <sessionId>$sessionId</sessionId>
      <username>$username</username>
      <oldPassword>$oldPassword</oldPassword>
      <newPassword>$newPassword</newPassword>
```

```
    </changePassword>
  </request>
</dnsshim>
```

6.1.1 Parameters

$sessionId: Session identification.

$username: Identification of the user.

$oldPassword: The user's password (the use of some cryptographic algorithm is recommended)

$newPassword: The user's password (the use of some cryptographic algorithm is recommended)

6.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <msg>$message</msg>
  </response>
</dnsshim>
```

6.2.1 Parameters

$status: See status code list (A.1).

$message: Message that describes the status code.

7 ChangeKeyStatus

Changes the status of a specified key.

7.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <changeKeyStatus>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
      <key>
        <keyName>$key</keyName>
        <oldStatus>$oldStatus</oldStatus>
```

```
        <newStatus>$newStatus</newStatus>
      </key>
    </changeKeyStatus>
  </request>
</dnsshim>
```

7.1.1 Parameters

$status: See status code list (A.1).

$zone: The zone that owns the key.

$keyName: The name of the key.

$oldStatus: The current key status. Either `NONE`, `SIGN` or `PUBLISH`. `PUBLISH` is a published key but is not used to sign the zone. `SIGN` is a published key and is used to sign the zone. `NONE` is a key associated to the zone but is not being published nor is used to sign the zone.

$newStatus: The new key status. Either `NONE`, `SIGN` or `PUBLISH`. `PUBLISH` is a published key but is not used to sign the zone. `SIGN` is a published key and is used to sign the zone. `NONE` is a key associated to the zone but is not being published nor is used to sign the zone.

7.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <changeKeyStatus>
      <keytag>$keytag</keytag>
      <digestType>$digestType</digestType>
      <digest>$digest</digest>
    </changeKeyStatus>
  </response>
</dnsshim>
```

7.2.1 Parameters

$status: See status code list (A.1).

$keytag: The key identificator.

$type: The digest algorithm type (SHA1).

$digest: The key digest.

8 Hello

Simply keeps the session alive, avoiding a timeout.

8.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <hello>
      <sessionId>$sessionId</sessionId>
    </hello>
  </request>
</dnsshim>
```

8.1.1 Parameters

$sessionId: Session identification.

8.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

8.2.1 Parameters

$status: See status code list (A.1).

9 ImportKey

Imports an existing RSA key into a zone.

9.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <importKey>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
```

```
        <algorithm>$algorithm</algorithm>
        <flags>$flags</flags>
        <type>$keyType</type>
        <status>$keyStatus</status>
        <modulus>$modulus</modulus>
        <publicExponent>$publicExponent</publicExponent>
        <privateExponent>$privateExponent</privateExponent>
        <prime1>$prime1</prime1>
        <prime2>$prime2</prime2>
        <exponent1>$exponent1</exponent1>
        <exponent2>$exponent2</exponent2>
        <coefficient>$coefficient</coefficient>
      </importKey>
    </request>
</dnsshim>
```

9.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone

$algorithm: The key's algorithm. Either 5 (RSA) or 3 (DSA). By now DNSSHIM only supports RSA keys.

$flags: The flags field of the new key (Either 256 or 257).

$keyType: Zone Sign Key (ZSK) or Key Sign Key (KSK).

$keyStatus: Status of the new key (Either SIGN, PUBLISH or NONE).

$modulus: Modulus of the RSA key.

$publicExponent: Public Exponent of the RSA key.

$privateExponent: Private Exponent of the RSA key.

$prime1: Prime1 of the RSA key.

$prime2: Prime2 of the RSA key.

$exponent1: Exponent1 of the RSA key.

$exponent2: Exponent2 of the RSA key.

$coefficient: Coefficient of the RSA key.

9.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

9.2.1 Parameters

$status: See status code list (A.1).

10 ImportZone

Imports a zone from an authoritative server using AXFR.

10.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <importZone>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
      <server>$server</server>
      <port>$port</port>
    </importZone>
  </request>
</dnsshim>
```

10.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone to import.

$server: IP of the authoritative server to import from.

$port: Port number on the authoritative server.

10.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

10.2.1 Parameters

$status: See status code list (A.1).

11 ListKeys

List all the keys associated to a zone.

11.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <listKeys>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
    </listKeys>
  </request>
</dnsshim>
```

11.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone to be created.

11.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <listKeys>
      <zone>$zonename</zone>
      <keys>
        <sign>
          <key>$keyName</key>
        </sign>
      </keys>
    </listKeys>
  </response>
</dnsshim>
```

11.2.1 Parameters

$status: See status code list (A.1).

$zonename: Name of the new zone.

$keyname: Name of the key used to sign the new zone.

12 ListSlaveGroup

List all the slavegroups.

12.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <listSlaveGroup>
      <sessionId>$sessionId</sessionId>
    </listSlaveGroup>
  </request>
</dnsshim>
```

12.1.1 Parameters

    $sessionId: Session identification.

12.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <listSlaveGroup>
      <slaveGroup>$slaveGroup</slaveGroup>
    </listSlaveGroup>
  </response>
</dnsshim>
```

12.2.1 Parameters

    $status: See status code list (A.1).
    $slaveGroup: Name of the slavegroup.

13 ListSlaves

List all the slave nameservers assigned to a zone.

13.1 Request

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

```
  <request>
    <listSlaves>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
    </listSlaves>
  </request>
</dnsshim>
```

13.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone to be created.

13.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <listSlaves>
      <zone>$zonename</zone>
      <slaveGroups>
        <slaveGroup>
          <name>$groupName</name>
          <slaves>
            <slave>
              <address>$slaveAddress</address>
              <port>$slavePort</port>
            </slave>
          </slaves>
        </slaveGroup>
      </slaveGroups>
    </listSlaves>
  </response>
</dnsshim>
```

13.2.1 Parameters

$status: See status code list (A.1).

$zonename: Name of the zone.

$groupName: Name of the slave group.

$slaveAddress: The slave IP address.

$slavePort: The slave port.

14 ListTsigKeys

List all TSIG keys associated a server.

14.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <listTsigKeys>
      <sessionId>$sessionId</sessionId>
      <host>$host</host>
    </listTsigKeys>
  </request>
</dnsshim>
```

14.1.1 Parameters

>**$sessionId:** Session identification.
>
>**$host:** Host IP address.

14.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <listTsigKeys>
      <host>$host</host>
      <keys>
        <key>
          <name>$keyName</name>
          <secret>$secret/secret>
        </key>
      </keys>
    </listTsigKeys>
  </response>
</dnsshim>
```

14.2.1 Parameters

>**$status:** See status code list (A.1).
>
>**$host:** Host IP address.
>
>**$keyName:** Name of the TSIG key.

$secret: The TSIG secret.

15 ListZonesBySlaveGroup

List all the zones which have a specific slavegroup assigned to it.

15.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <listZonesBySlaveGroup>
      <sessionId>$sessionId</sessionId>
      <slaveGroup>$slaveGroup</slaveGroup>
    </listZonesBySlaveGroup>
  </request>
</dnsshim>
```

15.1.1 Parameters

$sessionId: Session identification.
$slaveGroup: Name of the slavegroup.

15.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <listZones>
      <slaveGroup>$groupName</slaveGroup>
      <zone>$zonename</zone>
    </listZones>
  </response>
</dnsshim>
```

15.2.1 Parameters

$status: See status code list (A.1).
$groupName: Name of the slave group.
$zonename: Name of the zone.

16 ListZones

Lists all the zones managed by the current user.

16.1 Request

```xml
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <listZones>
      <sessionId>$sessionId</sessionId>
    </listZones>
  </request>
</dnsshim>
```

16.1.1 Parameters

$sessionId: Session identification.

16.2 Response

```xml
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <listZones>
      <zone>$zonename</zone>
    </listZones>
  </response>
</dnsshim>
```

16.2.1 Parameters

$status: See status code list (A.1).
$zonename: Name of the zone.

17 Login

Logs into the server using username and password.

17.1 Request

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

```
  <request>
    <login>
      <username>$username</username>
      <password>$password</password>
    </login>
  </request>
</dnsshim>
```

17.1.1 Parameters

$username: Identification of the user.

$password: The user's password (the use of some cryptographic algorithm is recommended).

17.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <login>
      <sessionId>$sessionId</sessionId>
    </login>
  </response>
</dnsshim>
```

17.2.1 Parameters

$status: See status code list (A.1).

$sessionId: Session identification.

18 Logout

Finishes the current session.

18.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <logout>
      <sessionId>$sessionId</sessionId>
    </logout>
```

```
    </request>
</dnsshim>
```

18.1.1 Parameters

$sessionId: Session identification.

18.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

18.2.1 Parameters

$status: See status code list (A.1).

19 NewKey

Generates a new key for a specified zone.

19.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <newKey>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
      <size>$keySize</size>
      <type>$keyType</type>
      <flags>$flags</flags>
      <status>$keyStatus</status>
      <algorithm>$algorithm</algorithm>
      <protocol>$protocol</protocol>
    </newKey>
  </request>
</dnsshim>
```

19.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone.

$keySize: Size of the new key (suggestion is 1024).

$keyType: Zone Sign Key (ZSK) or Key Sign Key (KSK).

$flags: The flags field of the new key (Either 256 or 257).

$keyStatus: Status of the new key (Either SIGN, PUBLISH or NONE).

$algorithm: The key's algorithm. Either 5 (RSA) or 3 (DSA). By now DNSSHIM only supports RSA keys.

$protocol: Dnskey protocol according RFC 3755. By now must be 3.

$expirationPeriod: Validity of the zone's signatures.

19.2 Response

```xml
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <newKey>
      <zone>$zonename</zone>
      <name>$keyName</name>
      <keytag>$keytag</keytag>
      <digestType>$type</digestType>
      <digest>$digest</digest>
    </newKey>
  </response>
</dnsshim>
```

19.2.1 Parameters

$status: See status code list (A.1).

$zonename: The name of the zone.

$keytag: The key identificator.

$type: The digest algorithm type (SHA1).

$digest: The key digest.

20 NewSlaveGroup

Creates a group of slave nameservers, aka slavegroup.

20.1 Request

```
<dnsshim version="1.0">
  <request>
    <newSlaveGroup>
      <sessionId>$sessionId</sessionId>
      <slaveGroup>$slaveGroup</slaveGroup>
    </newSlaveGroup>
  </request>
</dnsshim>
```

20.1.1 Parameters

$sessionId: Session identification.

$slaveGroup: Name of the slavegroup.

20.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

20.2.1 Parameters

$status: See status code list (A.1).

21 NewTsigKey

Creates a TSIG key.

21.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <newTsigKey>
      <sessionId>$sessionId</sessionId>
      <host>$host</host>
      <keyName>$keyName</keyName>
    </newTsigKey>
  </request>
```

```
</dnsshim>
```

21.1.1 Parameters

$sessionId: Session identification.
$host: Host IP address.
$keyName: Name of the new TSIG key.

21.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <newTsigKey>
      <host>$host</host>
      <keyName>$keyName</keyName>
      <secret>$secret</secret>
    </newTsigKey>
  </response>
</dnsshim>
```

21.2.1 Parameters

$status: See status code list (A.1).
$host: Host IP address.
$keyname: The TSIG key name.
$keyname: The TSIG secret.

22 NewZone

Creates a new zone.

22.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <newZone>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
      <dnssec>$isSigned()</dnssec>
```

```
    <soa>
      <ttl>$ttl</ttl>
      <mname>$mname</mname>
      <rname>$rname</rname>
      <serial>$serial</serial>
      <refresh>$refresh</refresh>
      <retry>$retry</retry>
      <expire>$expire</expire>
      <minimum>$minimum</minimum>
    </soa>
    <key>
      <size>$keySize</size>
      <algorithm>$algorithm</algorithm>
      <expirationPeriod>
      $expirationPeriod</expirationPeriod>
    </key>
  </newZone>
  </request>
</dnsshim>
```

Important note: The key tag must be used only for zones that use DNSSEC. **The use of DNSSEC is highly recommended.**

22.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone.

$dnssec: Create a zone without DNSSEC.

$ttl: TTL of the SOA record.

$mname: MNAME parameter of the SOA record.

$rname: RNAME parameter of the SOA record.

$serial: Version number of the new zone.

$refresh: REFRESH parameter of the SOA record.

$retry: RETRY parameter of the SOA record.

$expire: EXPIRE parameter of the SOA record.

$minimum: MINIMUM parameter of the SOA record.

$keySize: Key size of the zone's DNSKEY.

$algorithm: The algorithm used to sign the zone. Either 5 (RSA) or 3 (DSA). By now DNSSHIM only supports RSA keys.

$expirationPeriod: Validity of the zone's signatures.

22.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <newZone>
      <zone>$zonename</zone>
      <key>$keyname</key>
      <keytag>$keytag</keytag>
      <digestType>$type</digestType>
      <digest>$digest</digest>
    </newZone>
  </response>
</dnsshim>
```

22.2.1 Parameters

$status: See status code list (A.1).
$zonename: The name of the zone.
$keytag: The key identificator.
$type: The digest algorithm type (SHA1).
$digest: The key digest.

23 PrintSlaveGroup

Print all the slave nameservers of a slavegroup.

23.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <printSlaveGroup>
      <sessionId>$sessionId</sessionId>
      <slaveGroup>$slaveGroup</slaveGroup>
    </printSlaveGroup>
  </request>
</dnsshim>
```

23.1.1 Parameters

$sessionId: Session identification.
$slaveGroup: Name of the slavegroup.

23.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <printSlaveGroup>
      <slaveGroup>$group</slaveGroup>
      <slaves>
        <slave>$slaveAddress</slave>
      </slaves>
    </printSlaveGroup>
  </response>
</dnsshim>
```

23.2.1 Parameters

$status: See status code list (A.1).

$zonename: The name of the slave group.

$slave: Host IP address.

24 PrintZone

Prints the records of a zone.

24.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <printZone>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
    </printZone>
  </request>
</dnsshim>
```

24.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone.

24.2 Response

```xml
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <printZone>
      <zone>$zonename</zone>
      <records>
        <rr>
          <ownername>$ownername</ownername>
          <class>$class</class>
          <type>$type</type>
          <ttl>$ttl</ttl>
          <rdata>$rdata</rdata>
        </rr>
      </records>
      <dsInfo>
        <ds>
          <keytag>$keytag</keytag>
          <digestType>$digestType</digestType>
          <digest>$digest</digest>
        </ds>
      </dsInfo>
    </printZone>
  </response>
</dnsshim>
```

24.2.1 Parameters

$status: See status code list (A.1).

$zonename: The name of the slave group

$ownername: Ownername of the record.

$class: Class of the record.

$type: Type of the record.

$ttl: TTL (*Time to Life*) of the record.

$rdata: RDATA of the record in presentation format.

$keytag: Zone key identificator.

$digestType: The Digest Type field identifies the algorithm used to construct the DS record's digest. Either `SHA1` or `SHA256`.

$digest: The DNSKEY record digest.

25 PubZone

Publishes the zone to the configured slave servers.

25.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <pubZone>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
      <serial>$serial</serial>
      <type>$type</type>
    </pubZone>
  </request>
</dnsshim>
```

25.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone.

$serial: The new version number of the zone (Must be greater than the current one).

$type: FULL (axfr) or INCREMENTAL (ixfr).

25.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <pubZone>
      <zone>$zonename</zone>
      <serial>$serial</serial>
    </pubZone>
  </response>
</dnsshim>
```

25.2.1 Parameters

$status: See status code list (A.1).

$zonename: The name of the slave group.

$serial: The version number of the zone.

26 RemoveKey

26.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <removeKey>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
      <keyName>$key</keyName>
    </removeKey>
  </request>
</dnsshim>
```

26.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone.

$keyName: The name of key.

26.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

26.2.1 Parameters

$status: See status code list (A.1).

27 RemoveRecord

Removes a Resource Record from the zone.

27.1 Request

```
 <dnsshim version="1.0">
  <request>
    <removeRr>
      <sessionId>$sessionId</sessionId>
```

```
      <zone>$zone</zone>
      <rr>
        <ownername>$ownername</ownername>
        <ttl>$ttl</ttl>
        <type>$type</type>
        <dnsClass>$dnsClass</dnsClass>
        <rdata>$rdata</rdata>
      </rr>
    </removeRr>
  </request>
</dnsshim>
```

27.1.1 Parameters

$sessionId: Identification of the user.

$zone: The zone to be published.

$ownername: Ownername of the record being removed.

$ttl: TTL (*Time to Life*) of the record.

$type: Type of the record.

$dnsClass: Class of the record.

$rdata: RDATA of the record in presentation format.

27.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

27.2.1 Parameters

$status: See status code list (A.1).

28 RemoveSlave

Removes a slave nameserver to and from a slavegroup.

28.1 Request

```
<dnsshim version="1.0">
  <request>
```

```
    <removeSlave>
      <sessionId>$sessionId</sessionId>
      <slaveGroup>$slaveGroup</slaveGroup>
      <slave>$slave</slave>
      <port>$port</port>
    </removeSlave>
  </request>
</dnsshim>
```

28.1.1 Parameters

$sessionId: Identification of the user.
$slaveGroup: Name of the slavegroup.
$slave: Host IP address.
$port: Port number on the slave.

28.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

28.2.1 Parameters

$status: See status code list (A.1).

29 RemoveSlaveGroup

Removes a group of slave nameservers, aka slavegroup.

29.1 Request

```
<dnsshim version="1.0">
  <request>
    <removeSlaveGroup>
      <sessionId>$sessionId</sessionId>
      <slaveGroup>$slaveGroup</slaveGroup>
    </removeSlaveGroup>
  </request>
</dnsshim>
```

29.1.1 Parameters

$sessionId: Session identification.

$slaveGroup: Name of the slavegroup.

29.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

29.2.1 Parameters

$status: See status code list (A.1).

30 RemoveTsigKey

Removes a TSIG key.

30.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <removeTsigKey>
      <sessionId>$sessionId</sessionId>
      <host>$host</host>
      <keyName>$keyName</keyName>
    </removeTsigKey>
  </request>
</dnsshim>
```

30.1.1 Parameters

$sessionId: Session identification.

$host: Host IP address.

$keyName: The TSIG key's name.

30.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

30.2.1 Parameters

$status: See status code list (A.1).

31 RemoveZone

Removes a zone.

31.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <removeZone>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
    </removeZone>
  </request>
</dnsshim>
```

31.1.1 Parameters

$sessionId: Session identification.
$zone: Name of the zone.

31.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

31.2.1 Parameters

$status: See status code list (A.1).

32 RemoveZoneUser

32.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <removeZoneUser>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
      <username>$username</username>
    </removeZoneUser>
  </request>
</dnsshim>
```

32.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone.

$username: Identification of the user.

32.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

32.2.1 Parameters

$status: See status code list (A.1).

33 SetExpirationPeriod

Sets the signatures's validity period of zone.

33.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <setExpirationPeriod>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
      <expirationPeriod>$expiration</expirationPeriod>
    </setExpirationPeriod>
  </request>
</dnsshim>
```

33.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone.

$expirationPeriod: Validity of the zone's signatures.

33.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <setExpirationPeriod>
      <zone>$zonename</zone>
      <expirationPeriod>$expiration</expirationPeriod>
    </setExpirationPeriod>
  </response>
</dnsshim>
```

33.2.1 Parameters

$status: See status code list (A.1).

$zonename:

34 UnassignSlaveGroup

Unassigns a slavegroup to and from a zone.

34.1 Request

```
<dnsshim version="1.0">
```

```
  <request>
    <unassignSlaveGroup>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
      <slaveGroup>$slaveGroup</slaveGroup>
    </unassignSlaveGroup>
  </request>
</dnsshim>
```

34.1.1 Parameters

$sessionId: Session identification.
$zone: Name of the zone.
$slaveGroup: Name of the slavegroup.

34.2 Response

```
<?xml version="1.0" encoding="utf-8?""?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
  </response>
</dnsshim>
```

34.2.1 Parameters

$status: See status code list (A.1).

35 ZoneVersion

Current version (SOA serial) of the zone.

35.1 Request

```
<?xml version="1.0" encoding="utf-8"?>
<dnsshim version="1.0">
  <request>
    <zoneVersion>
      <sessionId>$sessionId</sessionId>
      <zone>$zone</zone>
    </zoneVersion>
  </request>
</dnsshim>
```

35.1.1 Parameters

$sessionId: Session identification.

$zone: Name of the zone.

35.2 Response

```
<?xml version="1.0" encoding="utf-8?"?>
<dnsshim version="1.0">
  <response>
    <status>$status</status>
    <zoneVersion>
      <zone>$zonename</zone>
      <serial>$serial</serial>
    </zoneVersion>
  </response>
</dnsshim>
```

35.2.1 Parameters

$status: See status code list (A.1).

$serial: The version number of the zone.

A Appendix

A.1 Response Codes of Protocol

Description	Code
Ok	1
Bad User Interface Clien Request	2
Invalid Signer Operation	3
Empty Rrset	4
Invalid Algorithm	5
Invalid Key	6
Signature Error	7
No Soa	8
Transfer Not Allowed	9
Not Authoritative	10
Dns Message Formerr	11
Bad Tsig	12
Invalid Dns Message	13
Refused Operation	14
Dns Server Failure	15
Zone Not Found	16
Publication Error	17
Invalid Soa Version	18
Signer Server Failure	19
Zone Already Exists	20
Resource Record Not Found	21
Slave Already Exists	22
Slave Not Found	23
Invalid Key Status	24
Connection Refused	25
Ui Server Error	27
Invalid Resource Record	28
Resource Record Already Exists	29
Slave Group Not Found	30
Slave Group Already Exists	31
Forbidden	32
User Not Found	50
Invalid User	51
User Already Exists	52
Invalid Password	53