

## **Exhibit A**

### **REMOTE REGISTRATION API**

#### **1. Introduction**

Domain Management in the Dot TK ccTLD registry can be done in three ways:

1. By sending EPP messages to the Dot TK server that is interpreted internally as XML messages.
2. By sending XML messages to the Dot TK server
3. Using the Dot TK RRS client that translates command prompt commands to secure XML messages

All three methods are described in this document. Some variable information, such as host name, your IP range, certificates, username and password are not part of this standardized document.

## 2. Functionality

The Dot TK registry-registrar communication has a 'request-result' type of communication. Per connection only one transaction takes place where the client always requests something and the service always replies something.

These are the allowed operations / functions in the Dot TK registry-registrar communication.

### *ALIVE TEST*

Ping the service

Check if the Dot TK Registry Service is running and if the Registrar can reach the communication networks of Dot TK.

### *AVAILABILITY*

Check if a Dot TK Domain Name is available and if so, what the Retail Price is for that domain.

### *REGISTER*

Register a new Dot TK Domain Name.

### *EXTENSION*

Extend an existing Dot TK Domain Name. The domain name should have been registered previously.

### *ADD/MODIFY HOST*

Add/modify Host allows updating Host (DNS server) information such as IP address.

### *UPDATE DOMAIN DNS*

A Dot TK Domain Name can have different DNS servers. With this functionality the DNS servers can be added to a Dot TK Domain Name.

### *TRANSFER DOMAIN*

A domain can be transferred from registrar 1 to registrar 2. This process involves both registrars.

### *TRANSFER QUERY*

Dot TK registry cannot inform the registrar directly. The registrar should make contact with registry several times each day to retrieve any new notices or transfer requests. This can be done by a 'query' action.

### *APPROVE/DECLINE DOMAIN TRANSFER*

The current (old) registrar can approve or decline a domain transfer. If declined, the registrar should have a good reason.

This sums up in short all functionality of the Dot TK registrar-registry service.

### 3. EPP Services

#### 3.1. Introduction

Dot TK runs an EPP service for its registrars, facilitating automated management of domain name registrations (and cancellations, transfers, etc.) The service is compatible with the EPP standard developed by the Internet Engineering Task Force, which is already in use by many other major registries and registrars. In fact, soon EPP will, for many registries, be the only available method for electronic domain administration by registrars. The aim of the standard and our service is, amongst others, to lower costs and increase interoperability between registries and registrars.

#### 3.2. EPP Protocol Information

The service running on the Dot TK servers is compatible with EPP version 0503. The specification documents can be found together with this document. These documents describe the general structure of EPP connections, transactions and commands, the commands specific to domain administration and the commands specific to host administration.

#### 3.3. Dot TK EPP Server Rules

The EPP specification leaves some room for (server) operator specific policy. Policy choices can affect, for instance, the length of grace periods and whether optional parts of the specification are supported. This section details the policy implemented on our server and the implications for our registrars.

##### Transport mapping

- The EPP server supports only SSL connections over TCP.
- Connections are persistent but will time out after an hour of inactivity.

##### Protocol support

- The .TK Registry operates a 'thin' registry, meaning that administration of the registrant details for a domain is left to the registrar. The server therefore does not support the EPP 'contact' object or any contact-related information for domain objects.
- The server supports the 'ok', 'pendingTransfer' and 'inactive' values for the domain status.
- The server supports EPP login and logout, but ignores authentication data, since authentication is already performed by the SSL layer.
- The EPP server does not support the 'AuthInfo' data for domains.

##### Grace periods

- Dot TK supports a grace period of three days for deletion of a domain.

##### Extensions

- The server implements a per-domain pricing extension through the *NSDomBill* extension as used by the .tv registry.

##### Polling

- Results of operations that are not performed synchronously, or operations that involve other registrars, are reported through the EPP polling procedure. Currently this applies only to transfer requests. Polling is currently only performed on request by the client. This means it is your responsibility to send <poll> messages at suitable intervals and acknowledge the pending messages.

#### 3.4. Connecting to the .TK EPP Server

You must request an SSL certificate from .TK technical support and install it before you will be able to connect. At that time you will also get the host- and domain name, including the port number, where your client can connect to. Contact registrars@dot.tk for more information on obtaining a certificate.

## 4. XML Messages

Note: all XML information in this chapter should only be used if you are *not* using the Dot TK RRS Client.

Declaration is always the same.

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

Explanation:

- Version 1.0 is the only version at the moment.
- UTF-8 specifies that only ASCII characters are allowed.
- Standalone is enabled. We do not refer to any DTD or other external document.

The root element is called `<dottk>`. Every document should start with this element.

Every transaction has an `<transaction>` element in it. This element gives information about the registrar, his password and its unique transaction id (optional).

### 4.1. ALIVE TEST

The registrar needs to know if the service is up and running and accepting connections. This can be done by a ping request.

Example request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
<dottk>
  <transaction>
    <registrarnr>1234567</registrarnr>
    <password>mypassword</password>
  </transaction>
  <server:ping type="request"/>
</dottk>
```

The result:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction/>
  <server:ping type="result">
    <status>Up and running</status>
  </server:ping>
</dottk>
```

## 4.2. AVAILABILITY

Verifies the availability of a Dot TK Domain Name. Based on this information, the registrar can sell the domain to a registrant.

Example request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarnr>1234567</registrarnr>
    <password>mypassword</password>
    <registrarref>A78781</registrarref>
  </transaction>
  <domain:check type="request">
    <domainname>DOT.TK</domainname>
    <lengthofregistration>3</lengthofregistration>
  </domain:check>
</dottk>
```

The result in case of success:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <domain:check type="result">
    <domainname>DOT.TK</domainname>
    <lengthofregistration>3</lengthofregistration>
    <currency>YTL</currency>
    <rate>32.50</rate>
    <status>AVAILABLE</status>
  </domain:check>
</dottk>
```

If the domain has previously been registered:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <domain:check type="result">
    <domainname>DOT.TK</domainname>
    <lengthofregistration>3</lengthofregistration>
    <status>NOT AVAILABLE</status>
  </domain:check>
</dottk>
```

### 4.3. REGISTER

The registrar wants to register a Dot TK Domain Name.

Example request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarnr>1234567</registrarnr>
    <password>mypassword</password>
    <registrarref>A78781</registrarref>
  </transaction>
  <domain:registration type="request">
    <domainname>DOT.TK</domainname>
    <lengthofregistration>3</lengthofregistration>
    <nameserver>NS1.DOT.TK</nameserver>
    <nameserver>NS2.DOT.TK</nameserver>
    <nameserver>NS3.DOT.TK</nameserver>
  </domain:registration>
</dottk>
```

The result after a successful registration:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <domain:registration type="result">
    <domainname>DOT.TK</domainname>
    <lengthofregistration>3</lengthofregistration>
    <currency>YTL</currency>
    <rate>32.50</rate>
    <expirationdate>20040711</expirationdate>
    <status>REGISTERED</status>
  </domain:registration>
</dottk>
```

The domain was not available for registration.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <domain:registration type="result">
    <domainname>DOT.TK</domainname>
    <lengthofregistration>3</lengthofregistration>
    <status>NOT AVAILABLE</status>
  </domain:registration>
</dottk>
```

#### 4.4. EXTENSION

Extending the registration can be done at any time, as long as the Dot TK Domain Name has not yet expired. The extended time is appended to the date of expiration. Only the current registrar can extend the registration.

Example request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarnr>1234567</registrarnr>
    <password>mypassword</password>
    <registrarref>A78781</registrarref>
  </transaction>
  <domain:extension type="request">
    <domainname>DOT.TK</domainname>
    <lengthofregistration>3</lengthofregistration>
  </domain:extension>
</dottk>
```

The reply after a successful extension:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <domain:extension type="result">
    <domainname>DOT.TK</domainname>
    <lengthofregistration>3</lengthofregistration>
    <currency>YTL</currency>
    <rate>32.50</rate>
    <expirationdate>2007711</expirationdate>
    <status>EXTENDED</status>
  </domain:extension>
</dottk>
```

#### 4.5. ADD/MODIFY HOST

The hosts are used for the DNS registration of the registered Dot TK Domain Names. Adding hosts lets the registrar register these name servers. If ip-adresses of nameservers need to be changed, it is best to add the host again.

Example request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarnr>1234567</registrarnr>
    <password>mypassword</password>
    <registrarref>A78781</registrarref>
  </transaction>
  <host:registration type="request">
    <hostname>NS1.DOT.TK</hostname>
    <ipaddress>127.0.0.1</ipaddress>
  </host:registration>
</dottk>
```

The reply after a successful host registration:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <host:registration type="result">
    <hostname>NS1.DOT.TK</hostname>
    <ipaddress>127.0.0.1</ipaddress>
    <status>UPDATED OR REGISTERED</status>
  </host:registration>
</dottk>
```

#### 4.6. UPDATE DOMAIN DNS

Updating DNS servers for a domain. This request should just add all DNS servers again.

Example request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarnr>1234567</registrarnr>
    <password>mypassword</password>
    <registrarref>A78781</registrarref>
  </transaction>
  <domain:updatens type="request">
    <domainname>DOT.TK</domainname>
    <nameserver>NS1.DOT.TK</nameserver>
    <nameserver>NS2.DOT.TK</nameserver>
    <nameserver>NS3.DOT.TK</nameserver>
    <nameserver>NS4.TALOHA.COM</nameserver>
  </domain:updatens>
</dottk>
```

The reply after a successful update:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <domain:updatens type="reply">
    <domainname>DOT.TK</domainname>
    <status>NAMESERVERS UPDATED</status>
  </domain:updatens>
</dottk>
```

#### 4.7. TRANSFER DOMAIN

When transferring a domain, two registrars are involved: The new registrar and the current registrar.

The new registrar has to do a transfer-request for the domain it wishes to have in its registry. After receiving the request, the registry will queue a transfer-request for the current registrar.

The current registrar should pick up this request by querying the request using the transfer-query procedure. This should be done within 5 days. It would be wise for a registrar to query every day (perhaps multiple times per day).

After having polled the request, the current registrar should approve or decline the transfer. As a default, all transfer requests should be approved. If the current registrar declines the transfer a reason should be supplied in the decline.

Example request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarnr>1234567</registrarnr>
    <password>mypassword</password>
    <registrarref>A78781</registrarref>
  </transaction>
  <domain:transfer-request type="request">
    <domainname>DOT.TK</domainname>
  </domain:transfer-request>
</dottk>
```

The reply in case of successful request.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <domain:transfer-request type="result">
    <domainname>DOT.TK</domainname>
    <transferreference>1287872</transferreference>
    <status>TRANSFER IN QUEUE</status>
  </domain:transfer-request>
</dottk>
```

#### 4.8. TRANSFER QUERY

Example request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarnr>1234567</registrarnr>
    <password>mypassword</password>
    <registrarref>A78781</registrarref>
  </transaction>
  <domain:transfer-poll type="request"/>
</dottk>
```

Reply with two queued domains.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <domain:transfer-poll type="result">
    <domainname>DOT.TK
      <transferreference>1287872</transferreference>
    </domainname>
    <domainname>NIC.TK
      <transferreference>1287873</transferreference>
    </domainname>
  </domain:transfer-poll>
</dottk>
```

When there is no transfer queued, the reply is:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <domain:transfer-poll type="result"/>
</dottk>
```

#### 4.9. APPROVE/DECLINE DOMAIN TRANSFER

Example request / approval:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarnr>1234567</registrarnr>
    <password>mypassword</password>
    <registrarref>A78781</registrarref>
  </transaction>
  <domain:transfer-approval type="request">
    <domainname>DOT TK</domainname>
    <transferreference>1287872</transferreference>
  </domain:transfer-approval>
</dottk>
```

Example request / decline:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarnr>1234567</registrarnr>
    <password>mypassword</password>
    <registrarref>A78781</registrarref>
  </transaction>
  <domain:transfer-approval type="request">
    <domainname>DOT TK</domainname>
    <transferreference>1287872</transferreference>
    <declined>This is a blacklisted domain name, we do not approve</decline>
  </domain:transfer-approval>
</dottk>
```

If the request for approval was approved:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <domain:transfer-approval type="result">
    <domainname>DOT.TK</domainname>
    <status>TRANSFERRED</status>
  </domain:transfer-approval>
</dottk>
```

If the request for denial was approved:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <domain:transfer-approval type="result">
    <domainname>DOT.TK</domainname>
    <status>NOT TRANSFERRED</status>
  </domain:transfer-approval>
</dottk>
```

If the request for decline was declined:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>1</result>
  </transaction>
  <domain:transfer-approval type="reply">
    <domainname>DOT.TK</domainname>
    <status>ERROR: PLEASE SPECIFY THE REASON OF DECLINE</status>
  </domain:transfer-approval>
</dottk>
```

After this approval or decline, the new registrar will get a query-transfer message queued. This message should be picked up within 5 days.

#### 4.10. OTHER MESSAGES

There are some general error messages that can be the result of more than one request.

The general error message is:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <result>0</result>
    <status>Error in request</status>
  </transaction>
</dottk>
```

Whenever there where not enough parameters specified with the request, the following result is given:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>0</result>
    <status>Not enough fields</status>
  </transaction>
</dottk>
```

When the registrar is not allowed to do the request it sent:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>0</result>
    <status>Not authorized</status>
  </transaction>
</dottk>
```

When the domain is not available for this request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<dottk>
  <transaction>
    <registrarref>A78781</registrarref>
    <result>0</result>
    <status>Domain not available</status>
  </transaction>
</dottk>
```

## 5. Dot TK RRS Client

The Dot TK RRS Client is available for all major Unix platforms. It was tested on RedHat Linux, SuSE Linux, BSDI and Sun/Solaris.

### 5.1. Dot TK RRS Libraries

To use the client, you will need a couple of libraries. The client was written using a Linux platform (SuSE 7.3) so your installation might differ a bit.

First of all you need Perl. v5.6.0 or higher is needed. The client uses SSL to secure communication. Therefore you will need:

- openssl (0.9.6b or higher)  
<ftp://ftp.suse.com/pub/suse/i386/7.3/suse/sec1/>  
<http://www.openssl.org/source/>
- Net\_SSLeay  
<http://www.perl.com/CPAN/modules/by-module/Net/>

Note that if you download an RPM for OpenSSL (as SuSE provides), you will also need the development rpm. This rpm contains the headerfiles that are needed for the module Net\_SSLeay.

The client and server communicate through an XML protocol. Therefore, you will need some libraries to support XML as well.

- expat  
<ftp://ftp.suse.com/pub/suse/i386/7.3/suse/sgm1>  
<http://sourceforge.net/projects/expat/>
- IO-stringy-2.108 (or above)  
<http://www.perl.com/CPAN/modules/by-module/IO/>
- XML-Parser-2.31 (or above)  
<http://www.perl.com/CPAN/modules/by-module/XML/>
- XML-Simple-1.08 (or above)  
<http://www.perl.com/CPAN/modules/by-module/XML/>
- XML-Writer-0.4(or above)  
<http://www.perl.com/CPAN/modules/by-module/XML/>

Installation of these modules is beyond the scope of this document. You can install the modules in the same order they are presented to you in this document.

## 5.2. Certificates

The Dot TK Registry Registrar services work with SSL to ensure security and authenticity. Dot TK is the Certificate Authority (CA).

If you are all setup, you will have received 2 certificates and 1 key file from Dot TK.

- clientname\_cert.pem  
Your certificate with public key.
- clientname\_key.pem  
Your private key. Please keep this very save!
- CAcert.pem  
The certificate of the Certificate Authority (DotTK). This is used to check the validity of DotTK RRS certificate.

You should take very good care of these files because they form the basis of security. Normally key files are passphrase protected. Dot TK has removed this passphrase for you so you can fully automate your system.

## 5.3. Configuration file

The client uses a configuration file. This file contains the static information you do not wish to pass every request. When running the client, the location of the configuration file should be passed as value of the 'config' parameter.

Configuring is simple. An example configuration file:

```
----- CUT HERE -----  
#  
# client configuration  
#  
  
# server ip number  
server=195.20.32.95  
  
# server port number  
port=1648  
  
# location of certificates  
clientcert=certs/client_cert.pem  
clientkey=certs/client_key.pem  
cacert=certs/CA_cert.pem  
  
# logon information  
registrarnr=1898  
password=myspassword  
  
----- CUT HERE -----
```

#### 5.4. Using the client

The client is written in Perl. This means it must know where your perl binary is located. If this location is different than:

`/usr/bin/perl`

Please alter this data at the first line of the 'tkClient' file.

#### Parameters in alphabetical order:

config	Location of configuration file.
declined	When you decline a transfer of a domain, you should specify a reason.
domainname	The Dot TK Domain Name this operation concerns. Always include '.TK' in all domain names.
hostname	Hostname of nameserver you wish to register at DotTK
ipaddress	Ipaddress of nameserver you wish to register at DotTK.
lengthofregistration	Length of registration of domain. 1,2,3,4,5 or 9 years.
nameserver	Hostname of nameserver for domain. Non-tk domains are allowed.
registrarref	Registrars reference of this transaction. This field is optional and completely ignored by DotTK
request	The request to perform. Please see below for supported commands.
transferreference	When transferring a domain from registrar A to registrar B this reference will identify the transfer.

#### Supported requests

The following requests are supported in this current release. Per request you will see the required parameters and the expected result.

#### *ALIVE TEST*

Request	: server:ping
Parameters	: none!
Info	: Use this to test if the service is up and running.
Returns	: status=Server up and running serverinfo=DotTK Registrar-Registry Service v1.0. result=server:ping type=result

## AVAILABILITY

Request : domain:check  
Parameters : domainname  
                  lengthofregistration  
Info : Use this request to learn if a domain is available. If it is available, the price of the registration for the given length is given. If it is not available, the address of the current registrar's whois service will be given.  
Returns : status=NOT AVAILABLE  
          result=domain:check  
          domainname=MYDOMAIN.TK  
          type=result  
          whois=WHOIS.MYWHOIS.NET  
          currency=YTL  
          rate=25.00

## REGISTER

Request : domain:registration  
Parameters : domainname  
                  lengthofregistration  
                  nameserver (min \*2, max \*8)  
Info : Registers the domain for the given number of years. A minimal number of 2 and a maximum number of 8 name servers should be given. If you specify unknown Dot TK name servers, you should add these with 'host:registration'. If the domain has already been registered, expect the same output as 'domain:check'  
Returns : result=domain:registration  
          domainname=DOTTKRRS.TK  
          rate=75.00  
          status=REGISTERED  
          currency=YTL  
          expirationdate=07/24/2011  
          type=result  
          lengthofregistration=9

## UPDATE DOMAIN DNS

Request : domain:updatens  
Parameters : domainname  
                  nameserver (min \*2, max \*8)  
Info : This request makes it possible to alter the name servers of the .TK domain. This request requires -all- name servers to be resent. Old name server settings will be overwritten.  
Returns : status=NAMESEVERERS UPDATED  
          result=domain:updatens  
          domainname=MYDOMAIN.TK  
          type=result

## *EXTENSION*

Request : domain:extension  
Parameters : domainname  
lengthofregistration  
Info : Before a domain will expire, users might chose to extend it. To do this,  
use this request.  
Returns : result=domain:extension  
domainname=MYDOMAIN.TK  
rate=25.00  
status=EXTENDED  
currency=YTL  
expirationdate=07/24/2011  
type=result  
lengthofregistration=2

## *ADD/MODIFY HOST*

Request : host:registration  
Parameters : hostname  
ipaddress  
Info : Nameservers for .TK domains that are actually .TK domains themselves,  
need to be registered within DotTK. You can only register .TK domains  
after you have registered the .TK domain. You can also use this function to  
update the hostname. You should do this when you want to alter the IP  
number of the nameserver.  
Returns : status=UPDATED OR REGISTERED  
result=host:registration  
ipaddress=195.20.32.104  
hostname=NS6.MYDOMAIN.TK  
type=result

## *TRANSFER DOMAIN*

Request : domain:transfer-request  
Parameters : domainname  
Info : If a registrar wishes to be responsible for a domain that is already  
registered to a different registrar, it should use the this request. This  
request queues the transfer in DotTK's database. The old registrar will  
have to poll for this request. The transfer reference is very important for the  
requesting registrar. It can be used to check the status of the transfer.  
Returns : status=TRANSFER IN QUEUE  
result=domain:transfer-request  
domainname=MYNEWDOMAIN.TK  
type=result  
transferreference=605603220592

## *TRANSFER QUERY*

Request : domain:transfer-poll  
Parameters : [domainname]  
              [transferreference]  
Info : This request can be used in two ways:

Without parameters: This is used to see if there are any transfers pending. There can be multiple requests pending. The following data could be returned:

```
status=2 DOMAINS IN TRANSFER QUEUE  
result=domain:transfer-poll  
transfers=>domainname=MYDOMAIN.TK  
transfers=>transferreference=731219875  
transfers=>domainname=MYNEWDOMAIN.TK  
transfers=>transferreference=605603220592  
type=result
```

With parameters: This can be used by the registrar to check the status of a transfer. The transferreference is important here. The following data could be returned:

```
status=TRANSFER IN QUEUE  
result=domain:transfer-poll  
type=result  
transferreference=605603220592
```

## *APPROVE/DECLINE DOMAIN TRANSFER*

Request : domain:transfer-approval  
Parameters : domainname  
              transferreference  
              [declined]  
Info : Once the registrar has received the approval-request, he can either approve or decline it. Upon denial, the registrar should give a reason.  
Returns : status=TRANSFERRED  
          result=domain:transfer-approval  
          domainname=MYNEWDOMAIN.TK  
          type=result

## 5.5. Examples

User commands are in bold print.

Ping the service:

```
user@host:/> clientTk config=clientconfig request=server:ping  
success=1  
status=Server up and running  
serverinfo=DotTK Registrar-Registry Service v1.0.  
result=server:ping  
type=result
```

Checking a taken domain:

```
user@host:/> clientTk config=clientconfig request=domain:check  
domainname=madnez.tk lengthofregistration=2  
success=1  
status=NOT AVAILABLE  
result=domain:check  
domainname=MADNEZ.TK  
type=result  
whois=WHOIS.VINKEVEEN.NET  
currency=YTL  
rate=25.00
```

Checking an available domain:

```
user@host:/> clientTk config=clientconfig request=domain:check  
domainname=booooh.tk lengthofregistration=2  
success=1  
status=AVAILABLE  
result=domain:check  
currency=YTL  
domainname=BOOOOH.TK  
rate=25.00  
type=result  
lengthofregistration=2
```

Registration of domain:

```
user@host:/> clientTk config=clientconfig request=domain:registration  
domainname=BOOOOH.TK lengthofregistration=3  
nameserver=NS1.BO000H.TK nameserver=NS2.BO000H.TK  
success=1  
result=domain:registration  
domainname=BOOOOH.TK  
rate=32.50  
status=REGISTERED  
currency=YTL  
expirationdate=07/25/2005  
type=result  
lengthofregistration=3
```

#### Updating nameservers:

```
user@host:/> clientTk config=clientconfig request=domain:updates domainname=MADNEZ.TK
nameserver=NS1.BOOOOH.TK nameserver=NS2.BOOOOH.TK
success=1
status=NAMESEVERERS UPDATED
result=domain:updates
domainname=MADNEZ.TK
type=result
```

#### Extending domain registration:

```
user@host:/> clientTk config=clientconfig request=domain:extension
domainname=MADNEZ.TK lengthofregistration=9
success=1
result=domain:extension
domainname=MADNEZ.TK
rate=75.00
status=EXTENDED
currency=YTL
expirationdate=01/01/2020
type=result
lengthofregistration=9
```

#### Registering a hostname:

```
user@host:/> clientTk config=clientconfig request=host:registration
hostname=NS1.MADNEZ.TK ipaddress=195.20.32.50
success=1
status=UPDATED OR REGISTERED
result=host:registration
ipaddress=195.20.32.50
hostname=NS1.MADNEZ.TK
type=result
```

#### Requesting a domain transfer:

```
user@host:/> clientTk config=clientconfig request=domain:transfer-request
domainname=THUMBSUP.TK
success=1
status=TRANSFER IN QUEUE
result=domain:transfer-request
domainname=THUMBSUP.TK
type=result
transferreference=605603220694
```

#### Requesting a transfer that is already queued:

```
user@host:/> clientTk config=clientconfig request=domain:transfer-request
domainname=THUMBSUP.TK
success=1
status=TRANSFER ALREADY QUEUED
result=domain:transfer-request
domainname=MADNEZ.TK
type=result
transferreference=731219875
```

Requesting for any queued domain transfers:

```
user@host: /> clientTk config=clientconfig request=domain:transfer-poll
success=1
status=2 DOMAINS IN TRANSFER QUEUE
result=domain:transfer-poll
transfers=>domainname=MADNEZ.TK
transfers=>transferreference=731219875
transfers=>domainname=THUMBSUP.TK
transfers=>transferreference=605603220694
type=result
```

Requesting status of previously queued transfer:

```
user@host: /> clientTk config=clientconfig request=domain:transfer-poll
domainname=THUMBSUP.TK transferreference=605603220694
success=1
status=TRANSFER IN QUEUE
result=domain:transfer-poll
type=result
transferreference=605603220694
```

Declining a transfer:

```
user@host: /> clientTk config=clientconfig request=domain:transfer-approval
domainname=MADNEZ.TK transferreference=731219875 declined="USER DOES NOT WANT THIS"
success=1
status=NOT TRANSFERRED
result=domain:transfer-approval
domainname=MADNEZ.TK
type=result
```

Approving a transfer

```
user@host: /> clientTk config=clientconfig request=domain:transfer-approval
domainname=THUMBSUP.TK transferreference=605603220694
success=1
status=TRANSFERRED
result=domain:transfer-approval
domainname=THUMBSUP.TK
type=result
```

Re-requesting status of previously queued transfer:

```
user@host: /> clientTk config=clientconfig request=domain:transfer-poll
domainname=MADNEZ.TK transferreference=731219875
success=1
status=TRANSFER DECLINED
result=domain:transfer-poll
type=result
declined=USER DOES NOT WANT THIS
transferreference=731219875
```

## 5.6. Possible errors

It is possible that a call to the DotTK RRS is invalid. There may be several reasons causing this.

### Example:

```
user@host: /> clientTk config=clientconfig request=domain:transfer
success=0
reason=COMMAND NOT UNDERSTOOD
```

The following error messages are possible:

**COMMAND NOT UNDERSTOOD**  
The requested command is not supported.

**ERROR IN PARAMETER  
PLEASE CHECK PARAMETERS  
NOT ENOUGH FIELDS FOR REQUEST**  
There is a problem in your parameters. Please refer to the documentation.

**NOT AUTHORIZED FOR THIS REQUEST**  
This domain belongs to a different registrar. You are not allowed to do this request.

**DOMAIN NOT AVAILABLE FOR THIS REQUEST**  
This domain is not available for you to do this request on.

**INTERNAL SERVER ERROR 6  
INTERNAL SERVER ERROR 7  
INTERNAL SERVER ERROR 8  
UNKNOWN SERVER ERROR**

The server made an error. Please report this error to DotTK at [registrars@dot.tk](mailto:registrars@dot.tk).