



RESELLONE.NET

**ResellOne.net Provisioning System
Digital Certificates API Specification**

February, 2006

Table of Contents

Revisions and Updates	3
1 Introduction	4
2 The Order Item Object	5
2.1 Key Definitions for the "create_items" Associative Array.....	5
2.2 Key Definitions for the "product_data" Associative Array	7
2.3 Key Definitions for the "contact_set" Associative Array.....	8
2.4 Order Item Creation.....	8
2.5 Modification of Order Items	8
3 The Approver Object.....	9
3.1 The Query Operation.....	9
3.1.1 Request Key Definitions	9
3.1.2 Response Key Definitions	9
3.2 Query Approver Examples.....	11
4 The CSR object	12
4.1 The Parse Operation	12
5 Resend Approver or Certificate Email.....	17
6 Renew Certificate Command	22
6.1 Key Definitions for the "create_items" Associative Array.....	22
6.2 Examples	22
7 Digital Certificate Error Codes	31

Revisions and Updates

January 26, 2006

- Incremented document version number to 2.9.4.
- Added command **Renew Certificate** with examples.

June 20, 2005

- Incremented document version number to 2.9.0.
- GeoTrust now offers competitive upgrades; added details to the product_data section to reflect this change. This change will be available in the Horizon environment as of June 20, 2005, and will be live June 27, 2005.

May 10, 2004

- Character limit for ResellOne.net Web Interface username and respective password has changed. Usernames must be 1 – 256 characters; passwords must be 3 – 256.
- ResellOne.net Web Interface user passwords cannot contain special characters. Creation of a new user will fail if you attempt to submit "!", "@", or "#" in the password.
- Added new command, Resend Approver or Certificate Email, which resends the Approver email or the email containing the Digital Certificate, sent by GeoTrust.
- Updated Error Codes section to include CSR error codes.

October 29, 2003

- Implemented document versioning system, whereby version number changed to 2.1.9. This is the starting number for the new versioning system and does not indicate any major changes to the documentation or the product. Future version number changes will indicate a change to the product.

October 22, 2003

- Added new command, The Parse Operation, which enables the parsing of CSRs.

September 23, 2003

- Added error codes.

1 Introduction

The Digital Certificate Service provides access to the provisioning of digital certificates. This document describes how the Digital Certificate service data is structured within TPP.

2 The Order Item Object

The TPP order contains a sub-object called an order item. Digital Certificates can be provisioned by adding an order item to the order object.

The following is the general structure of the Digital Certificate service TPP order item:

```
create_items => {
  service => 'cert',
  object_type =>
  'quickssl'|'quicksslpremium'|'truebizid'|'truebizidwildcard',
  orderitem_type => 'new',
  client_reference => '',
  product_data => {
    period => '',
    csr => '',
    server_type => '',
    cu_certificate => '',
    approver_email => '',
    # only applicable to quickssl family of products
  },
  contact_set => {
  }
};
```

2.1 Key Definitions for the “create_items” Associative Array

inventory_item_id	<i>Parameter Name:</i> inventory_item_id <i>Type:</i> int <i>Description:</i> The number of the order to be renewed <i>Obligation:</i> Required when orderitem_type = renewal <i>Location:</i> This key can be located in one of the three following associative arrays: orderitem, create_items and/or update_items. <i>Allowed Value(s):</i> Must be 'cert ID #'
service	<i>Parameter Name:</i> service <i>Type:</i> string <i>Description:</i> The name of the digital certificate service <i>Obligation:</i> Required <i>Location:</i> This key can be located in one of the three following associative arrays: orderitem, create_items and/or update_items. <i>Allowed Value(s):</i> Must be 'cert'

object_type	<p><i>Parameter Name:</i> object_type</p> <p><i>Type:</i> string</p> <p><i>Description:</i> The product type from the certificate inventory. The four product types are detailed in the allowed values section for this key.</p> <p><i>Obligation:</i> Required</p> <p><i>Location:</i> This key can be located in one of the three following associative arrays: orderitem, create_items and/or update_items.</p> <p><i>Allowed Value(s):</i> QuickSSL = quickssl QuickSSLPremium = quicksslpremium TrueBusinessId = truebizid TrueBusinessId Wildcard = truebizidwildcard</p>
orderitem_type	<p><i>Parameter Name:</i> orderitem_type</p> <p><i>Type:</i> string</p> <p><i>Description:</i> The type of order as described in the generic TPP document. Order types are detailed in the allowed values section for this key.</p> <p><i>Obligation:</i> Required</p> <p><i>Location:</i> This key can be located in one of the three following associative arrays: orderitem, create_items and/or update_items.</p> <p><i>Allowed Value(s):</i> For new orders, use 'new' For renewal orders, use 'renewal'</p>
client_reference	<p><i>Parameter Name:</i> client_reference</p> <p><i>Type:</i> string</p> <p><i>Description:</i> Standard order item client reference from TPP</p> <p><i>Obligation:</i> Optional</p> <p><i>Location:</i> This key is only present in the create_items associative array.</p> <p><i>Allowed Value(s):</i></p>
contact_set	<p><i>Parameter Name:</i> contact_set</p> <p><i>Type:</i> associative array</p> <p><i>Description:</i> The certificate contact information. See the TPP specifications for more information.</p> <p><i>Obligation:</i> Required</p> <p><i>Location:</i> This key can be located in one of the three following associative arrays: orderitem, create_items and/or update_items.</p> <p><i>Allowed Value(s):</i> All products require: 'admin', 'billing' and 'tech' contacts. Additional 'organization' contact is required for TrueBusinessId family of products. See contacts section for further information on contact requirements.</p>
product_data	<p><i>Parameter Name:</i> product_data</p> <p><i>Type:</i> associative array</p> <p><i>Description:</i> The data specific to a digital certificate</p> <p><i>Obligation:</i> Required</p> <p><i>Location:</i> This key can be located in one of the three following associative arrays: orderitem, create_items and/or update_items.</p> <p><i>Allowed Value(s):</i> See below</p>

2.2 Key Definitions for the “product_data” Associative Array

period	<p><i>Parameter Name:</i> period</p> <p><i>Type:</i> int</p> <p><i>Description:</i> The standard TPP order item period. The amount of time, in years, that the product should be valid for. The Digital Certificate service allows for registrations from 1 to 3 years.</p> <p><i>Obligation:</i> Required</p> <p><i>Location:</i> This key is located in the ‘product_data’ associative array</p> <p><i>Allowed Value(s):</i> 1, 2, or 3</p>
csr	<p><i>Parameter Name:</i> csr</p> <p><i>Type:</i> string</p> <p><i>Description:</i> Certificate signing request. For more information on the CSR, please review the User Guide.</p> <p><i>Obligation:</i> Optional</p> <p><i>Location:</i> This key is located in the ‘product_data’ associative array</p> <p><i>Allowed Value(s):</i> A Certificate Signing Request for the required certificate.</p>
cu_certificate	<p><i>Parameter Name:</i> cu_certificate</p> <p><i>Type:</i> string</p> <p><i>Description:</i> Competitive upgrade certificate data. For more information on competitive upgrades, please review the User Guide.</p> <p><i>Obligation:</i> Optional</p> <p><i>Location:</i> This key is located in the ‘product_data’ associative array</p> <p><i>Allowed Value(s):</i> A Certificate Signing Request for the active certificate.</p>
server_type	<p><i>Parameter Name:</i> server_type</p> <p><i>Type:</i> string</p> <p><i>Description:</i> The type of server software used to generate the CSR</p> <p><i>Obligation:</i> Optional</p> <p><i>Location:</i> This key is located in the ‘product_data’ associative array</p> <p><i>Allowed Value(s):</i> Apache SSL = apachessl Apache Raven = apacheraven Apache SSLeay = apachesslay C2Net = c2net Cobalt Raq2 = cobaltraq2 Cobalt Raq3 = cobaltraq3 Cobalt Raq4 = cobaltraq4 IBM HTTP = ibmhttp iPlanet = iplanet Domino Go 4625 = dominogo4625 Domino Go 4626 = dominogo4626 Domino = domino IIS4 = iis4 IIS5 = iis5 Netscape = netscape Webstar 4 = webstar4 Zeus v3 = zeusv3</p>
approver_email	<p><i>Parameter Name:</i> approver_email</p> <p><i>Type:</i> string</p> <p><i>Description:</i> One of the approver emails return by “query approver call</p> <p><i>Obligation:</i> Required for QuickSSL, optional for other certificate types</p> <p><i>Location:</i> This key is located in the ‘product_data’ associative array</p> <p><i>Allowed Value(s):</i> A valid e-mail address.</p>

2.3 Key Definitions for the “contact_set” Associative Array

The following table outlines contact requirements for different certificate types:

	QuickSSL	QuickSSL Premium	TrueBusinessId	TrueBusinessId Wildcard
Admin	Required	Required	Required	Required
Billing	Required	Required	Required	Required
Tech	Required	Required	Required	Required
Organization			Required	Required

The following table outlines contact fields required for different contact types:

	Admin	Billing	Tech	Organization
first_name	Required	Required	Required	
last_name	Required	Required	Required	
org_name				Required
duns				*
address 1	Required	Required	Required	Required
address 2				
address 3				
city	Required	Required	Required	Required
state	Required	Required	Required	Required
postal_code	Required	Required	Required	Required
country	Required	Required	Required	Required
phone	Required	Required	Required	Required
fax				Required
e-mail	Required	Required	Required	

* DUNS number is an optional field, however supplying this information may speed up the order processing, please refer to the “User Guide” for more information.

2.4 Order Item Creation

The descriptions and dependencies of the fields above match up with order item creation (i.e. Fields marked “required” are truly required).

2.5 Modification of Order Items

When updating existing certificate order items, many of the fields listed as required above become optional. The general rules for updates are:

- Include individual keys and values when you want to make a change to a value in the server.
- Include individual keys and empty/undefined values when you want to “blank out” values in the server.
- Omit individual keys when you do not wish to make changes to particular values in the server.

For updates, the order item's ID is the only required field.

3 The Approver Object

3.1 The Query Operation

The query operation permits the client to obtain a list of valid approvers for a given domain.

3.1.1 Request Key Definitions

domain	<i>Parameter Name:</i> domain <i>Type:</i> string <i>Description:</i> A domain name <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'product_data' associative array <i>Allowed Value(s):</i> The full domain name for which the certificate is being purchased
---------------	--

3.1.2 Response Key Definitions

approver_list	<i>Parameter Name:</i> approver_list <i>Type:</i> associative array <i>Description:</i> List of approver objects <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'product_data' associative array <i>Value(s):</i> Approver objects
----------------------	--

approver_object	<i>Parameter Name:</i> approver_object <i>Type:</i> associative array <i>Description:</i> Approver details, which are e-mail, domain and approver type <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'approver_list' associative array <i>Value(s):</i>
------------------------	--

email	<i>Parameter Name:</i> email <i>Type:</i> string <i>Description:</i> Approver e-mail address <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'approver_object' associative array <i>Value(s):</i> A valid e-mail address
--------------	---

type	<i>Parameter Name:</i> type <i>Type:</i> string <i>Description:</i> Approver type <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'approver_object' associative array <i>Value(s):</i> One of 'domain' (parsed from the whois), 'generic' (generated by pre-pending predefined list of prefixes to the domain name), or 'manual' (supplier support address)
-------------	--

Request Example

The format of the approver query request is as follows:

```
{
  protocol => 'TPP',
  action => 'query',
  object => 'product',
  requestor => {
    username => '',
  },
  attributes => {
    service => 'cert',
    object_type => 'approver',
    product_data => {
      domain => '',
    },
  },
}
```

Response Example

The format of the query approver response is as follows:

```
{
  protocol => 'TPP',
  action => 'query:reply',
  object => 'product',
  is_success => 1|0,
  response_code => xxx,
  response_text => '',
  attributes => {
    service => 'cert',
    object_type => 'approver',
    product_data => {
      approver_list => [
        {
          email => '',
          type => 'DOMAIN|GENERIC|MANUAL',
        }
      ]
    },
  },
}
```

3.2 Query Approver Examples

Request Example

```
{
  protocol => 'TPP',
  version => '1.1',
  action => 'query',
  object => 'approver',
  attributes => {
    service => 'cert',
    product_data => {
      domain => 'domain.tld',
    }
  }
}
```

Response Example

```
{
  protocol => 'TPP',
  action => 'query:reply',
  object => 'approver',
  is_success => 1,
  response_text => 'Request completed successfully',
  response_code => 200,
  attributes => {
    service => 'cert',
    object_type => 'approver',
    response_text => 'Request completed successfully',
    response_code => 200,
    product_data => {
      approver_list => [
        {
          type => 'DOMAIN',
          email => 'user@domain.tld',
        },
      ],
    },
  }
}
```

4 The CSR object

4.1 The Parse Operation

Once you've generated a CSR (Certificate Signing Request), use this command to parse that CSR and identify its data elements.

Request Keys

csr	<i>Parameter Name:</i> csr <i>Type:</i> String <i>Description:</i> Certificate signing request. For more information on the CSR, please review the Digital Certificates User Guide. <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'product_data' associative array <i>Allowed Value(s):</i> A Certificate Signing Request for the required certificate.
------------	--

Request Example – Perl

```
{
  protocol => "TPP",
  version => "1.2.0",
  action => 'parse',
  object => 'csr',
  requestor => {
    username => 'reseller_username',
  },
  attributes => {
    service => 'cert',
    product_data => {
      csr => '-----BEGIN CERTIFICATE REQUEST-----
MIIBrTCCAvcCAQAwga0xCzAJBgNVBAYTAkNBMRAwDgYDVQQIEwdPbnRhcmlvMRAw
.....
woINxN2sz6Rl+4UwyfyOwLrGs9ar8ZOtKAKn+L6jYhL4thmlSh+hYYmej6SJMtXU
XA==
-----END CERTIFICATE REQUEST-----',
    },
  }
};
```

Request Example – XML

```
<!DOCTYPE OPS_envelope SYSTEM "ops.dtd">
<OPS_envelope>
  <header>
    <version>0.9</version>
  </header>
  <body>
    <data_block>
      <dt_assoc>
        <item key="object">CSR</item>
        <item key="attributes">
```

```

<dt_assoc>
  <item key="service">cert</item>
  <item key="product_data">
    <dt_assoc>
      <item key="csr">
-----BEGIN NEW CERTIFICATE REQUEST-----
MIIDGjCCAusCAQAwgaYxGTAXBgNVBAMTEGFkZ2FuZy5hYXJodXMuzGsxQTA/BgNV
YXJodXMxEDAObgNVBAGTB0Rlbn1hcmsxCzAJBgNVBAYTAkRLMIGfMA0GCSqGSIb3
.....
.....
DQEBAQUAA4GNADCBiQKBgQCkYcQFJW2SEnfTEfA+4BVoM+/AubBX3HYY4uf/i/id
bbtVGUBmLj6uOUXIPGghiVkep2IWf4Gx+jKEVh+8haOuGjjTB1A=
-----END NEW CERTIFICATE REQUEST-----
</item>
    </dt_assoc>
  </item>
</dt_assoc>
</item>
<item key="version">1.2.0</item>
<item key="protocol">TPP</item>
<item key="requestor">
  <dt_assoc>
    <item key="username">XXXXXXX</item>
  </dt_assoc>
</item>
<item key="action">PARSE</item>
</dt_assoc>
</data_block>
</body>
</OPS_envelope>

```

Response Keys

csr_data	<i>Parameter Name:</i> csr_data <i>Type:</i> associative_array <i>Description:</i> Contains data elements of the CSR <i>Obligation:</i> Required <i>Location:</i> Located in the 'product_data' associative array <i>Value(s):</i> Valid CSR data attributes. See below.
organization	<i>Parameter Name:</i> organization <i>Type:</i> String <i>Description:</i> Value contained in the 'organization' field of csr_data <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'csr_data' associative array <i>Value(s):</i> Organization name
organization_unit	<i>Parameter Name:</i> organization_unit <i>Type:</i> String <i>Description:</i> Value contained in the 'organization_unit' field of csr_data <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'csr_data' associative array <i>Value(s):</i> Organization name

domain	<p><i>Parameter Name:</i> domain <i>Type:</i> String <i>Description:</i> Value contained in the 'domain' field of csr_data <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'csr_data' associative array <i>Value(s):</i> Domain name</p>
valid_quick_domain	<p><i>Parameter Name:</i> valid_quick_domain <i>Type:</i> Int <i>Description:</i> Value contained in the 'valid_quick_domain' field of 'csr_data' <i>Obligation:</i> Conditional – required for Quick SSL certificates only <i>Location:</i> This key is located in the 'csr_data' associative array <i>Value(s):</i> 1 0</p>
valid_true_domain	<p><i>Parameter Name:</i> valid_true_domain <i>Type:</i> Int <i>Description:</i> Value contained in 'valid_true_domain' field of 'csr_data' <i>Obligation:</i> Conditional – required for True BusinessID certificates only <i>Location:</i> This key is located in the 'csr_data' associative array <i>Value(s):</i> 1 0</p>
email	<p><i>Parameter Name:</i> email <i>Type:</i> String <i>Description:</i> Value contained in the 'email' field of 'csr_data' <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'scr_data' associative array <i>Value(s):</i> Email address</p>
country	<p><i>Parameter Name:</i> country <i>Type:</i> String <i>Description:</i> Value contained in the 'country' field of 'csr_data' <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'csr_data' associative array <i>Value(s):</i> Country name</p>
state	<p><i>Parameter Name:</i> state <i>Type:</i> String <i>Description:</i> Value contained in the 'state' field of 'csr_data' <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'csr_data' associative array <i>Value(s):</i> State name</p>
locality	<p><i>Parameter Name:</i> locality <i>Type:</i> String <i>Description:</i> Value contained in the 'locality' field of 'csr_data' <i>Obligation:</i> Required <i>Location:</i> This key is located in the 'csr_data' associative array <i>Value(s):</i> City name</p>

has_bad_extensions

Parameter Name: has_bad_extensions

Type: Int

Description: When 'has_bad_extensions' = 0, the CSR can be used.

When 'has_bad_extensions' = 1, re-generate the CSR without the unsupported extensions.

Obligation: Required

Location: This key is located in the 'csr_data' associative array

Value(s): 1|0

Response Example – Perl

```
{
  'version' => '1.2.0',
  'response_code' => '200',
  'attributes' => {
    'object_type' => 'csr',
    'response_code' => '200',
    'response_text' => 'Request completed successfully',
    'service' => 'cert'
    'product_data' => {
      'csr_data' => {
        'has_bad_extensions' => '0',
        'organization' => 'My CompanyName',
        'state' => 'HomeState',
        'domain' => 'hostname.mydomain.com',
        'locality' => 'City Name',
        'email' => 'myemail@ResellOne.net.com',
        'valid_true_domain' => '1',
        'organization_unit' => 'Section C.',
        'country' => 'US',
        'valid_quick_domain' => '1'
      }
    },
    'response_text' => 'Request completed successfully',
    'object' => 'CSR',
    'is_success' => '1',
    'protocol' => 'TPP',
    'action' => 'PARSE:REPLY',
    'session_id' => 'OSRS-7103832'
  };
};
```

Response Example – XML

```
<?xml version='1.0' encoding='UTF-8'?>
<OPS_envelope>
  <header>
    <version>0.9</version>
  </header>
  <body>
    <data_block>
      <dt_assoc>
        <item key='response_code'>200</item>
        <item key='session_id'>OSRS-2576180</item>
        <item key='action'>parse:reply</item>
        <item key='object'>csr</item>
        <item key='attributes'>
          <dt_assoc>
            <item key='product_data'>
              <dt_assoc>
                <item key='csr_data'>
                  <dt_assoc>
                    <item key='state'>XXXX</item>
                    <item key='organization'>XXXXXX</item>
                    <item key='valid_quick_domain'>1|0</item>
                    <item key='country'>XXXXXX</item>
                    <item key='has_bad_extensions'>|</item>
                    <item key='organization_unit'>XXXXXX</item>
                    <item key='domain'>XXXXXX</item>
                    <item key='valid_true_domain'>1|0</item>
                    <item key='email'>XXXXXX</item>
                    <item key='locality'>XXXXXX</item>
                  </dt_assoc>
                </item>
              </dt_assoc>
            </item>
            <item key='service'>cert</item>
            <item key='response_text'>Request completed successfully</item>
            <item key='object_type'>csr</item>
            <item key='response_code'>200</item>
          </dt_assoc>
        </item>
        <item key='is_success'>1</item>
        <item key='version'>1.2.0</item>
        <item key='protocol'>TPP</item>
        <item key='response_text'>Request completed successfully</item>
      </dt_assoc>
    </data_block>
  </body>
</OPS_envelope>
```

5 Resend Approver or Certificate Email

This command enables you to resend the Approver email or the email containing the Digital Certificate, sent by GeoTrust.

Note: You cannot request both the Approver email and the Certificate email for the same certificate using the same, single command.

In order to request the Certificate email, the order must be completed.

Request Keys

manage_items	<i>Parameter Name:</i> manage_items <i>Type:</i> Associative array <i>Description:</i> Associative array for managing an order item <i>Obligation:</i> Required <i>Location:</i> Within the 'attributes' associative array <i>Allowed Value(s):</i> values are variable
product_data	<i>Parameter Name:</i> product_data <i>Type:</i> Associative array <i>Description:</i> Contains the parameters (i.e. resend email-type) for each Cert <i>Obligation:</i> Required <i>Location:</i> Within the 'manage_items' associative array <i>Allowed Value(s):</i> values are variable
subaction	<i>Parameter Name:</i> subaction <i>Type:</i> String <i>Description:</i> action <i>Obligation:</i> Required <i>Location:</i> Within the 'product_data' associative array <i>Allowed Value(s):</i> 'resend_email'
param	<i>Parameter Name:</i> param <i>Type:</i> String <i>Description:</i> Identifies which email (Approver or Certificate) to resend <i>Obligation:</i> Required <i>Location:</i> Within the 'product_data' associative array <i>Allowed Value(s):</i> 'ApproverEmail' or 'FulfillmentEmail'

Request Example – Perl

```
{
  'protocol' => 'TPP',
  'object' => 'order',
  'action' => 'update',
  'requestor' => {
    'password' => 'secret',
    'username' => 'purple'
  },
  'attributes' => {
    'object_type' => 'approver',
    'order_id' => '14737',
    'cancel_items' => [
```

```

    {}
  ],
  'service' => 'cert',
  'create_items' => [
    {}
  ],
  'manage_items' => [
    {
      'product_data' => {
        'subaction' => 'resend_email',
        'param' => 'ApproverEmail'
      },
      'service' => 'cert',
      'item_id' => '18464'
    }
  ],
  'update_items' => [
    {}
  ]
}
};

```

Request Example – XML

```

<?xml version='1.0' encoding='UTF-8'?>
<OPS_envelope>
  <header>
    <version>0.9</version>
  </header>
  <body>
    <data_block>
      <dt_assoc>
        <item key="protocol">TPP</item>
        <item key="action">update</item>
        <item key="object">order</item>
        <item key="requestor">
          <dt_assoc>
            <item key="password">secret</item>
            <item key="username">purple</item>
          </dt_assoc>
        </item>
        <item key="attributes">
          <dt_assoc>
            <item key="service">cert</item>
            <item key="object_type">approver</item>
            <item key="order_id">14737</item>
            <item key="manage_items">
              <dt_array>
                <item key="0">
                  <dt_assoc>
                    <item key="service">cert</item>
                    <item key="product_data">
                      <dt_assoc>
                        <item key="subaction">resend_email</item>
                        <item key="param">ApproverEmail</item>
                      </dt_assoc>
                    </item>
                  </dt_assoc>
                </item>
              </dt_array>
            </item>
          </dt_assoc>
        </item>
      </dt_assoc>
    </data_block>
  </body>
</OPS_envelope>

```

```

                </item>
                <item key="item_id">18464</item>
            </dt_assoc>
        </dt_array>
    </item>
    <item key="cancel_items">
        <dt_array>
            <item key="0">
                <dt_assoc/>
            </item>
        </dt_array>
    </item>
    <item key="create_items">
        <dt_array>
            <item key="0">
                <dt_assoc/>
            </item>
        </dt_array>
    </item>
    <item key="update_items">
        <dt_array>
            <item key="0">
                <dt_assoc/>
            </item>
        </dt_array>
    </item>
</dt_assoc>
</item>
</dt_assoc>
</data_block>
</body>
</OPS_envelope>

```

Response Example – PERL

```

{
  'protocol' => 'TPP',
  'session_id' => 'OSRS-5575809',
  'object' => 'ORDER',
  'version' => '1.4.0',
  'response_code' => '200',
  'is_success' => '1',
  'response_text' => 'Request completed successfully',
  'action' => 'UPDATE:REPLY',
  'attributes' => {
    'price' => '6900',
    'update_items' => [],
    'reverse_items' => []
    'contacts' => [],
    'client_reference' => '',
    'status' => 'reserved',
    'order_id' => '14737',
    'cancel_items' => [],
    'create_items' => [],
    'manage_items' => [

```

```

    {
      'product_item' => {
        'product_data' => {
          'subaction' => 'resend_email',
          'param' => 'ApproverEmail'
        },
        'response_text' => 'Request completed successfully',
        'response_code' => '200',
        'service' => 'cert'
      },
      'client_reference' => '',
      'status' => '',
      'contact_set' => {},
      'price' => '0',
      'major_code' => '200',
      'major_text' => 'Request completed successfully',
      'item_id' => '18464'
    },
  ],
}
};

```

Response Example – XML

```

<?xml version='1.0' encoding='UTF-8' standalone='no'?>
<OPS_envelope>
  <header>
    <version>0.9</version>
  </header>
  <body>
    <data_block>
      <dt_assoc>
        <item key="protocol">TPP</item>
        <item key="version">1.4.0</item>
        <item key="action">UPDATE:REPLY</item>
        <item key="object">ORDER</item>
        <item key="session_id">OSRS-5575809</item>
        <item key="is_success">1</item>
        <item key="response_code">200</item>
        <item key="response_text">Request completed successfully</item>
        <item key="attributes">
          <dt_assoc>
            <item key="order_id">14737</item>
            <item key="price">6900</item>
            <item key="client_reference"/>
            <item key="status">reserved</item>
            <item key="manage_items">
              <dt_array>
                <item key="0">
                  <dt_assoc>
                    <item key="status"/>
                    <item key="contact_set">
                      <dt_assoc/>
                    </item>
                    <item key="major_code">200</item>
                    <item key="item_id">18464</item>

```

```

        <item key="price">0</item>
        <item key="client_reference"/>
        <item key="product_item">
            <dt_assoc>
                <item key="service">cert</item>
                <item key="product_data">
                    <dt_assoc>
                        <item key="param">ApproverEmail</item>
                        <item key="subaction">resend_email</item>
                    </dt_assoc>
                </item>
                <item key="response_code">200</item>
            </dt_assoc>
        </item>
        <item key="major_text">Request completed
successfully</item>
    </dt_assoc>
</item>
</dt_array>
</item>
<item key="create_items">
    <dt_array/>
</item>
<item key="reverse_items">
    <dt_array/>
</item>
<item key="update_items">
    <dt_array/>
</item>
<item key="contacts">
    <dt_array/>
</item>
<item key="cancel_items">
    <dt_array/>
</item>
</dt_assoc>
</item>
</dt_assoc>
</data_block>
</body>
</OPS_envelope>

```

6 Renew Certificate Command

A renewal order has the same format as a new order and parameter "orderitem_type" accepts a value for renewal as well as for new.

6.1 Key Definitions for the "create_items" Associative Array

inventory_item_id	<i>Parameter Name:</i> inventory_item_id <i>Type:</i> int <i>Description:</i> The inventory item ID of the certificate you want to renew <i>Obligation:</i> Required when "orderitem_type" = "renewal" <i>Location:</i> "create_items" associative array <i>Allowed Value(s):</i> Valid inventory item ID
orderitem_type	<i>Parameter Name:</i> orderitem_type <i>Type:</i> string <i>Description:</i> The type of order, e.g., renewal <i>Obligation:</i> Required <i>Location:</i> "create_items" associative array <i>Allowed Value(s):</i> For renewal orders, use 'renewal'

6.2 Examples

Renew Certificate Request Example (PERL)

```
{
  'protocol' => 'TPP',
  'version' => '1.4.0',
  'action' => 'CREATE',
  'object' => 'ORDER',
  'requestor' => {
    'username' => 'orange'
  },
  'attributes' => {
    'contacts' => [
      {
        'id' => '102'
      },
      {
        'id' => '102'
      },
      {
        'id' => '102'
      }
    ],
    'create_items' => [
      {
        'product_data' => {
          'server_count' => '1',
          'approver_email' => 'support_preprod@geotrust.com',

```

```

    'period' => '1',
    'csr' => '
-----BEGIN CERTIFICATE REQUEST-----
MIIByzCCATQCAQAwgYoxCzAJBgNVBAYTAkNBMRAdgYDVQQIEwdPbnRhcmlvMRAw
DgYDVQQHEwdUb3JvbnRvMQ8wDQYDVQQKEwZUdWNvd3MxCzAJBgNVBAsTAlFBMRgw
FgYDVQQDEw9jb3JlbG9naWMwLmluZm8xHzAdBgkqhkiG9w0BCQEWEBhdmVsQHRl
Y293cy5jb20wgZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBALKNXdEUmJ2CpLLg
lQflA30ItIldstCjQxNwtojiqWOrzG49mKB0SDSV3ny+OOyv1BhshFlvHM9CSeqn
wTcNPEKGUuw1+Q0UCVgeuUolM0Lu35PpprHiiR4zMohctqq40Uk+z4DtH2Nzq8DL
/r53rtRrYLWrcCrXD0ns6yKvdQIvAgMBAAGgADANBgkqhkiG9w0BAQQFAAOBgQA6
kBfkSh30bCEv903HKBWMSZHNgkKKWhp3gz/hZUmFDeLR6zf3AlaB7WA4zCtf0Zz5
4blr2txzHdf45gctJiL22hdZQQcJZlq0ed2yMUyaPQHqOUYng9ZthZxmLmVzv7/N
/yvbd0PJhV1oMewlQTzXUkbuDBQUBt+CE19UfWV5iw==
-----END CERTIFICATE REQUEST-----
',
    'server_type' => 'apacheopenssl'
  },
  'object_type' => 'quickssl',
  'contact_set' => {
    'admin' => '0',
    'tech' => '2',
    'billing' => '1'
  },
  'orderitem_type' => 'renewal',
  'service' => 'cert',
  'inventory_item_id' => '49653'
}
],
'cancel_items' => [],
'update_items' => [],
'user_id' => '1003',
'handling' => 'save'
}
};

```

Renew Certificate Response Example (PERL)

```

{
  'protocol' => 'TPP',
  'version' => '1.4.0',
  'action' => 'create:reply',
  'object' => 'order',
  'session_id' => 'OSRS-330325',
  'is_success' => '1',
  'response_code' => '200',
  'response_text' => 'Request completed successfully',
  'attributes' => {
    'contacts' => [
      {
        'duns' => '',
        'client_reference' => '',
        'address3' => '',
        'org_name' => '',
        'state' => '',
        'last_name' => '',
        'email' => ''
      }
    ]
  }
}

```

```

'city' => '',
'response_text' => 'Request completed successfully',
'postal_code' => '',
'fax' => '',
'url' => '',
'contact_id' => '102',
'country' => '',
'phone' => '',
'response_code' => '200',
'address2' => '',
'address1' => '',
'title' => '',
'first_name' => ''
},
{
'duns' => '',
'client_reference' => '',
'address3' => '',
'org_name' => '',
'state' => '',
'last_name' => '',
'email' => '',
'city' => '',
'response_text' => 'Request completed successfully',
'postal_code' => '',
'fax' => '',
'url' => '',
'contact_id' => '102',
'country' => '',
'phone' => '',
'response_code' => '200',
'address2' => '',
'address1' => '',
'title' => '',
'first_name' => ''
},
{
'duns' => '',
'client_reference' => '',
'address3' => '',
'org_name' => '',
'state' => '',
'last_name' => '',
'email' => '',
'city' => '',
'response_text' => 'Request completed successfully',
'postal_code' => '',
'fax' => '',
'url' => '',
'contact_id' => '102',
'country' => '',
'phone' => '',
'response_code' => '200',
'address2' => '',
'address1' => '',
'title' => '',
'first_name' => ''
}

```

```

    }
  ],
  'client_reference' => '',
  'create_items' => [
    {
      'client_reference' => '',
      'status' => 'validated',
      'major_code' => '200',
      'item_id' => '61824',
      'term' => '1',
      'product_item' => {
        'product_data' => {
          'approver_email' => 'support_preprod@geotrust.com',
          'server_count' => '1',
          'period' => '1',
          'csr' => '
-----BEGIN CERTIFICATE REQUEST-----
MIIByzCCATQCAQAwYoxCzAJBgNVBAYTAkNBMRAwDgYDVQQIEwdPbnRhcmlvMRAw
DgYDVQQHEwdUb3JvbnRvMQ8wDQYDVQQKEwZUdWNvd3MxCzAJBgNVBAsTAlFBMRgw
FgYDVQQDEw9jb3JlbG9naWMwLmluZm8xHzAdBgkqhkiG9w0BCQEWEBhdmVsQHRl
Y293cy5jb20wgZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBALKNXdEUmJ2CpLLg
lQf1A30ItIldstCjQxNwtojiqWOrzG49mKB0SDSV3ny+OOyv1BhshFlvHM9CSeqn
wTcNPEKGuw1+Q0UCVgeuUo1M0Lu35PpprHiiR4zMOhctqq40Uk+z4DtH2Nzq8DL
/r53rtRrYLWrcCrXD0ns6yKvdQIvAgMBAAAGgADANBgkqhkiG9w0BAQQFAAQBQA6
kBfkSh30bCEv903HKBWMSZHNggkKKWhp3gz/hZUmFDeLR6zf3AlaB7WA4zCtf0Zz5
4blr2txzHdf45gctJiL22hdZQQcJZ1q0ed2yMUyaPQHqOUYng9ZthZxmLmVzv7/N
/yvbD0PJhVloMewlQTzXUkbuDBQUBt+CE19UfWV5iw==
-----END CERTIFICATE REQUEST-----
',
          'server_type' => 'apacheopenssl'
        },
        'object_type' => 'quickssl',
        'service' => 'cert'
      },
      'contact_set' => {
        'admin' => '102',
        'tech' => '102',
        'billing' => '102'
      },
      'price' => '6900',
      'ancillary_price' => '0',
      'major_text' => 'Request completed successfully'
    }
  ],
  'status' => 'pending-process',
  'order_id' => '47156',
  'price' => '6900'
};

```

Renew Certificate Request Example (XML)

```
<?xml version='1.0' encoding="UTF-8" standalone="no" ?>
<OPS_envelope>
  <header>
    <version>0.9</version>
  </header>
  <body>
    <data_block>
      <dt_assoc>
        <item key="object">ORDER</item>
        <item key="attributes">
          <dt_assoc>
            <item key="user_id">1003</item>
            <item key="create_items">
              <dt_array>
                <item key="0">
                  <dt_assoc>
                    <item key="contact_set">
                      <dt_assoc>
                        <item key="tech">2</item>
                        <item key="admin">0</item>
                        <item key="billing">1</item>
                      </dt_assoc>
                    </item>
                    <item key="inventory_item_id">49653</item>
                    <item key="service">cert</item>
                    <item key="product_data">
                      <dt_assoc>
                        <item key="period">1</item>
                        <item key="csr">
                          -----BEGIN CERTIFICATE REQUEST-----
MIIByzCCATQCAQAwwYoxCzAJBgNVBAYTAkNBMRwwDQYDVQQIEwdPbnRhcmlvMRAw
DgYDVQQHEwdUb3JvbnRvMQ8wDQYDVQQKEwZUdWNvd3MxCzAJBgNVBAsTAlFBMRgw
FgYDVQQDEw9jb3JlbG9naWwmluZm8xHzAdBgkqhkiG9w0BCQEWEHBhdmVsQHRl
Y293cy5jb20wgZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBALKNXdEUmJ2CpLLg
lQf1A30ItIldstCjQxNwtojiqWOrzG49mKB0SDSV3ny+OOyv1BhshFlvHM9CSeqn
wTcNPEKGUuw1+Q0UCVgeuUolM0Lu35PpprHiiR4zM0hctqq40Uk+z4DtH2Nzq8DL
/r53rtRrYLWrcCrXD0ns6yKvdQIvAgMBAAGgADANBgkqhkiG9w0BAQQFAAQBQA6
kBFkSh30bCEv903HKBWMSZHNgkKKWhp3gz/hZUmFDeLR6zf3AlaB7WA4zCtf0Zz5
4blr2txzHdf45gctJiL22hdZQQcJZ1q0ed2yMUyaPQHqOUYng9ZthZxmLmVzv7/N
/yvbd0PJhV1oMewlQTzXUkbuDBQUBt+CE19UfWV5iw==
                          -----END CERTIFICATE REQUEST-----
                        </item>
                      </dt_assoc>
                    </item>
                  </dt_array>
                </item>
              </dt_assoc>
            </item>
          </dt_assoc>
        </item>
        <item key="approver_email">support_preprod@geotrust.com</item>
        <item key="server_type">apacheopenssl</item>
        <item key="server_count">1</item>
      </dt_assoc>
    </item>
    <item key="orderitem_type">renewal</item>
    <item key="object_type">quickssl</item>
  </dt_assoc>
</item>
</dt_array>
</item>
<item key="update_items">
```

```

        <dt_array/>
    </item>
    <item key="contacts">
        <dt_array>
            <item key="0">
                <dt_assoc>
                    <item key="id">102</item>
                </dt_assoc>
            </item>
            <item key="1">
                <dt_assoc>
                    <item key="id">102</item>
                </dt_assoc>
            </item>
            <item key="2">
                <dt_assoc>
                    <item key="id">102</item>
                </dt_assoc>
            </item>
        </dt_array>
    </item>
    <item key="cancel_items">
        <dt_array/>
    </item>
    <item key="handling">save</item>
</dt_assoc>
</item>
<item key="version">1.4.0</item>
<item key="protocol">TPP</item>
<item key="requestor">
    <dt_assoc>
        <item key="username">orange</item>
    </dt_assoc>
</item>
<item key="action">CREATE</item>
</dt_assoc>
</data_block>
</body>
</OPS_envelope>

```

Renew Certificate Response Example (XML)

```
<?xml version='1.0' encoding='UTF-8'?>
<OPS_envelope>
  <header>
    <version>0.9</version>
  </header>
  <body>
    <data_block>
      <dt_assoc>
        <item key="attributes">
          <dt_assoc>
            <item key="contacts">
              <dt_array>
                <item key="0">
                  <dt_assoc>
                    <item key="phone"/>
                    <item key="response_text">Request completed
successfully</item>
                    <item key="contact_id">102</item>
                    <item key="title"/>
                    <item key="postal_code"/>
                    <item key="org_name"/>
                    <item key="address1"/>
                    <item key="last_name"/>
                    <item key="fax"/>
                    <item key="duns"/>
                    <item key="address2"/>
                    <item key="country"/>
                    <item key="response_code">200</item>
                    <item key="client_reference"/>
                    <item key="url"/>
                    <item key="email"/>
                    <item key="address3"/>
                    <item key="state"/>
                    <item key="first_name"/>
                    <item key="city"/>
                  </dt_assoc>
                </item>
                <item key="1">
                  <dt_assoc>
                    <item key="phone"/>
                    <item key="response_text">Request completed
successfully</item>
                    <item key="contact_id">102</item>
                    <item key="title"/>
                    <item key="postal_code"/>
                    <item key="org_name"/>
                    <item key="address1"/>
                    <item key="last_name"/>
                    <item key="fax"/>
                    <item key="duns"/>
                    <item key="address2"/>
                    <item key="country"/>
                    <item key="response_code">200</item>
                    <item key="client_reference"/>
                    <item key="url"/>

```

```

        <item key="email"/>
        <item key="address3"/>
        <item key="state"/>
        <item key="first_name"/>
        <item key="city"/>
    </dt_assoc>
</item>
<item key="2">
    <dt_assoc>
        <item key="phone"/>
        <item key="response_text">Request completed
successfully</item>
        <item key="contact_id">102</item>
        <item key="title"/>
        <item key="postal_code"/>
        <item key="org_name"/>
        <item key="address1"/>
        <item key="last_name"/>
        <item key="fax"/>
        <item key="duns"/>
        <item key="address2"/>
        <item key="country"/>
        <item key="response_code">200</item>
        <item key="client_reference"/>
        <item key="url"/>
        <item key="email"/>
        <item key="address3"/>
        <item key="state"/>
        <item key="first_name"/>
        <item key="city"/>
    </dt_assoc>
</item>
</dt_array>
</item>
<item key="create_items">
    <dt_array>
        <item key="0">
            <dt_assoc>
                <item key="term">1</item>
                <item key="price">6900</item>
                <item key="major_code">200</item>
                <item key="client_reference"/>
                <item key="major_text">Request completed
successfully</item>
                <item key="ancillary_price">0</item>
                <item key="status">validated</item>
                <item key="item_id">61824</item>
                <item key="product_item">
                    <dt_assoc>
                        <item key="service">cert</item>
                        <item key="object_type">quickssl</item>
                        <item key="product_data">
                            <dt_assoc>
                                <item key="csr">
                                    -----BEGIN CERTIFICATE REQUEST-----

```

MIIByzCCATQCAQAwwYoxCzAJBgNVBAYTAkNBMRwwDgYDVQQIEwdPbnRhcmlvMRAw

DgYDVQQHEwdUb3JvbnRvMQ8wDQYDVQKKEwZUdWNvd3MxCzAJBgNVBAsTAlFBMRgw
FgYDVQQDEw9jb3JlbG9naWMwLmluZm8xHzAdBgkqhkiG9w0BCQEWEEHbhmVsQHR1
Y293cy5jb20wgZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBALKNXdEUmJ2CpLLg
lQf1A30ItIldstCjQxNwtojiqWOrzG49mKB0SDSV3ny+0Oyv1BhshFlvHM9CSeqn
wTcNPEKGUw1+Q0UCVgeuUo1M0Lu35PpprHiir4zMOhctqq40Uk+z4DtH2Nzq8DL
/r53rtRrYLWrcCrXD0ns6yKvdQIvAgMBAAAGgADANBgkqhkiG9w0BAQQFAA0BgQA6
kBfkSh30bCEv903HKBWMSZHNggKKWhp3gz/hZUmFDeLR6zf3AlaB7WA4zCtf0Zz5
4blr2txzHdf45gctJiL22hdZQQcJZlq0ed2yMUyaPQHqOUYng9ZthZxmLmVzv7/N
/yvbD0PJhVloMewlQTzXUkbuDBQUbt+CE19UfWV5iw==

-----END CERTIFICATE REQUEST-----

```
</item>
<item key="period">1</item>
<item key="server_count">1</item>
<item
key="approver_email">support_preprod@geotrust.com</item>
  <item key="server_type">apacheopenssl</item>
</dt_assoc>
</item>
</dt_assoc>
</item>
<item key="contact_set">
  <dt_assoc>
    <item key="billing">102</item>
    <item key="tech">102</item>
    <item key="admin">102</item>
  </dt_assoc>
</item>
</dt_assoc>
</item>
</dt_array>
</item>
<item key="price">6900</item>
<item key="client_reference"/>
<item key="status">pending-process</item>
<item key="order_id">47156</item>
</dt_assoc>
</item>
<item key="object">order</item>
<item key="protocol">TPP</item>
<item key="action">create:reply</item>
<item key="response_text">Request completed successfully</item>
<item key="response_code">200</item>
<item key="is_success">1</item>
<item key="session_id">OSRS-330325</item>
<item key="version">1.4.0</item>
</dt_assoc>
</data_block>
</body>
</OPS_envelope>
```

7 Digital Certificate Error Codes

The following table lists the Certs error codes with an explanation of the error.

Error code	Corresponding error message
Digital Certificate	
20004	Can't get supplier client from pool
20008	Database error occurred
20005	Invalid data
20006	Data is missing
20007	Validation Failed
20019	CSR Invalid
20020	CSR can not be parsed
20021	CSR signature invalid
20022	CSR Country code invalid
20023	Contains unsupported extensions
20024	CSR Invalid CN - Invalid characters
20025	CSR Invalid CN - Appears to be an IP address
20026	CSR Invalid CN - Does not contain at least one period
20027	CSR Invalid CN - Wildcard not supported
20028	CSR restricted string found
20029	Invalid field in CSR
20030	Required field missing in CSR
20031	CSR Invalid - CN ends with dot
20032	CSR Invalid CN - CN is too short
20033	CSR Invalid - maximum length exceeded
Contact	
10545	Contact not found
11002	Field(s) too long
11001	Missing required field(s)
11003	Syntax Error
General	
200	Command completed successfully
300	Async Request has been sent
500	Internal Server Error
9000	Invalid Contact Id
9001	Missing mandatory contact list
9002	The action is not supported

Error code	Corresponding error message
9003	The object is not supported
9004	Communication Error during mutable operation
9005	Communication Error during immutable operation
9006	Integrity/Inconsistency in DB found
9007	Request not accepted by supplier
9008	Unsupported custom action
9009	Required attribute is missing
9010	Invalid attribute value
10501	Invalid reseller
10508	Action not implemented
10509	Invalid order item
10510	Database Inconsistent
10511	Object not found